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Blood, Fire and Fertility: Human Remains and Ritual Practices at the Temple Pyramid Groups of Cantona, Puebla, Mexico

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Ce mémoire intitulé / This thesis entitled

Blood, Fire and Fertility: Human Remains and Ritual Practices at the Temple Pyramid Groups of Cantona, Puebla, Mexico

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Abstract

The prehispanic city of Cantona, located in the Valley of Oriental in the state of Puebla, Mexico, reached its first cultural apogee between 150 B.C. - 600/650 A.D. During this time, ceremonial complexes such as Temple Pyramid Groups and ballcourts were constructed. These served as the location for a number of rituals involving the beheading, dismemberment, defleshing, flaying, boiling, burning, and in some cases, the consumption of sacrifice victims. Other human body treatment included the burial of individuals in flexed seated positions. To better understand the ritual mortuary treatment of human bodies at Cantona, the finds are compared with data from three neighboring areas: the Valley of Mexico, Puebla-Tlaxcala, and the Gulf of Mexico. From this information, it can be deduced that most of discoveries at Cantona are the remains of rites dedicated to deity communication and fertility while those of individuals in flexed, seated positions belong to religious actors.

Keywords: Mesoamerica, Classic period, Cantona, temple pyramid, sacrifice, cannibalism, ritual, bloodletting

Résumé

La ville préhispanique de Cantona, située dans la vallée d'Oriental dans l'état de Puebla au Mexique, atteignit sa première apogée culturelle entre 150 av. J.C. et 600/650 A.D. Durant cette période, des complexes cérémoniaux comprenant des groupes de pyramides-temples et des terrains de jeu de balle furent construits. Ces installations servirent au déroulement de nombreux rites au cours desquels les victimes de sacrifices étaient décapitées, démembrées, décharnées, écorchées, bouillies, brûlées et, dans certains cas, consommées. D'autres traitements du corps humain comportent l'inhumation d'individus en position assise et repliés sur eux-mêmes. Pour mieux comprendre le traitement mortuaire rituel des corps humains à Cantona, les découvertes faites sur place sont comparées aux données datant de la même époque obtenues dans trois régions voisines : la vallée de Mexico, Puebla-Tlaxcala et le golfe du Mexique. A partir de ces renseignements, on peut en déduire que la majorité des découvertes faites à Cantona sont les restes des dépouilles et offrandes provenant de rites destinés à la communication avec les dieux et à l'obtention de la fertilité, tandis que les dépouilles des individus en position assise appartiennent à des prêtres ou à des personnages religieux.

Mots clés : Mésoamérique, période classique, Cantona, pyramide-temple, sacrifice, cannibalisme, rite, rituel, saignée

Resumen

La ciudad prehispánica de Cantona, ubicada en el valle de Oriental dentro del estado de Puebla, Mexico, tuvo su primer apogeo cultural entre 150 a.ne. y 600/650 d.n.e. Durante ese periodo, se edificaron gran número de complejos ceremoniales tal como Grupos de Templo Pirámide y canchas de juego de pelota. Estas construcciones sirvieron como sitios rituales en donde se llevaron a cabo gran número de ritos, los cuales, en parte, consistían en decapitar, desmembrar, descarnar, desollar, hervir, quemar, y, en algunos casos, comer a las víctimas humanas de los sacrificios. En otros casos, los cuerpos humanos fueron encontrados en posición flexionada y sentada. Para entender mejor el tratamiento ritual de cuerpos humanos en Cantona, estos descubrimientos fueron comparados con información obtenida de tres regiones cercanas: el Valle de México, Puebla-Tlaxcala y la Costa del Golfo. Esto permitió deducir que la mayoría de los hallazgos en Cantona representan los restos de ritos dedicados a la comunicación con divinidades y a la fertilidad, mientras que los individuos encontrados en posición flexionada y sentada corresponden a sacerdotes o actores rituales difuntos.

Palabras clave: Mesoamérica, clásico, Cantona, templo pirámide, sacrificio, canibalismo, ritual

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Abbreviations, Definitions, and Symbols

% percent

°C degrees centigrade

alfarda A low inclined ramp found on either side of pyramid steps.

altepetl A fertile hill that contains water or through which water flows.

C¹⁴ carbon-14

cajete A deep earthenware pot or bowl.

cantera A soft white stone resembling limestone.

cista A grave or container consisting of four lateral walls built of stone, sometimes closed with a stone cap.

cm centimeters

cuauhxicalli A stone container used as a receptacle for human hearts obtained during human sacrifice.

ha hectares

INAH Instituto Nacional de Antropología e Historia

km kilometres

m meters

mm millimetres

malpaís A Pleistocene-era lava flow of andesite and basalt over which only a shallow layer of topsoil has accumulated.

mano A hand-held stone used to crush and grind food. Usually paired with a metate.

metate A flat stone slab paired with a *mano* and used as a grinding implement.

molcajete A mortar-like grinding implement.

tablero A flat panel that, with a talud, forms part of a common architectural feature of prehispanic pyramid faces. Is often decorated with engravings or painted.

talud A flat slanted surface, usually referring an inclined wall. With a *tablero*, forms part of a common architectural feature of prehispanic pyramid faces.

tecajete A stone mortar-like grinding tool.

tejolote A hand-held pestle-like grinding tool.

tranchet A triangular or rectangular obsidian blade whose cutting edge is not retouched but whose other sides are shaped by pressure flaking.

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Introduction

The first millennium A.D. ushered in a period of population growth and cultural development previously unseen in Mesoamerica. In the Valley of Mexico, the powerful city of Teotihuacán grew to cover 20 km² reaching a population of as many as 125,000 people at its peak (Ortiz, Rodríguez, and Morales 2010:169). Along the Gulf Coast, trade networks inland and over water moved imports and exports throughout the region while in cities such as El Tajín spiritual leaders participated in a ritual ballgame in which deities and humans interacted to maintain the cosmic order. In the southwest, the Zapotec inhabitants of Monte Albán built a high city surrounded by mountains, while in the lush southern Maya region, city-states of gleaming white stone and red plaster engaged each other in ritual warfare. It is within this dynamic environment that the city of Cantona, located in the Oriental basin in the modern state of Puebla, grew to its first period of cultural expansion, transforming itself from a small local center into a highly urbanized city complete with temple pyramids, plazas, and ballcourts, all surrounded by a network of elite and commoner residences.

Recent excavations at Cantona's Temple Pyramid Groups shed light onto the religious practices carried out by the city's ruling class and serve to better understand the dominant worldview held by Cantona's inhabitants. The temple pyramid finds at the site consist largely of human bone remains. Burials most often include individuals seated in flexed positions or irregular concentrations of bones and fragments, most of which present cut marks, traces of dismemberment, and evidence of having been exposed to fire. The abundance of human remains associated with Temple Pyramid Groups is countered, however, by the almost total lack of visual and textual references to events that can be linked to, or help explain, these discoveries. In fact, there are very little iconographical elements in Cantona in general. In the absence of contemporary representations related to these burials, how then can the finds at Cantona's Temple Pyramid Groups begin to be understood?

Research Design

The analysis of the Temple Pyramid Group finds must draw from data obtained beyond the site's borders, by comparing excavation results from Cantona with temple pyramid finds and associated practices in neighboring regions for which more information is available. The regions chosen for this study are the Central Mexican Plateau, exemplified by the city of Teotihuacán, the Puebla-Tlaxcala block and the Gulf Coast area. These regions shared exchange corridors with Cantona and in some cases were direct trading partners with the city. These trade throughways allowed not only for the commerce of portable goods but also for the exchange of ideas, beliefs and practices. For each of the three areas mentioned, the dominant iconography and ideology will be examined in conjunction with the human remains located in ceremonial structures. This information will then be compared to the Temple Pyramid Group discoveries made at Cantona. Based on this analysis, this study will put forth the hypothesis that the temple pyramids and ceremonial structures at Cantona served as loci for rituals dedicated to deity communication whereby events involving bloodletting and human sacrifice were made in order to obtain continued agricultural fertility.

Before continuing further, it is important to clarify that this is meant to be a preliminary study and the conclusions reached here are put forth in order to open a discussion rather than provide a definite answer to a question. The bulk of the data from Cantona that will be presented is the result of fieldwork carried out by the author as a member of the Cantona Archaeological Project (PAC) team during the months of August through December 2009 as well as from information gathered from excavation reports filed by previous investigators with Mexico's National Institute of Anthropology and History (INAH). During the August-December 2009 field season, osteological elements could only be briefly examined in the field before being packaged and shipped to Mexico City where they currently await a much more thorough analysis. One of the few publications about the site, a small book by Jorge Talavera, Juan Martín Rojas and Enrique García (2001) sheds valuable light on the treatment of human and animal bones in Cantona and helps provide a Cantona-specific context essential to this work. This study merely intends to offer one possible explanation of the data as it is currently

understood. The results obtained from more detailed investigations of recently excavated archaeological elements from Cantona will undoubtedly alter our understanding of the site and force the revision of current interpretations.

The first chapter of this work provides an overview of the city of Cantona, including a brief summary of previous archaeological investigations, and locates the site in time and space. The area where Cantona is situated was occupied continuously between 600 B.C. to approximately 1000 A.D. but the construction and use of the Temple Pyramid Groups reached its apogee during the Late Formative through the Middle Classic Periods (between 150 B.C. and 650 A.D.). This is the time period which this work will focus on. Since Cantona is a relatively little-known site, the city's architectural features, economic base and social make-up will be reviewed, providing the reader with the necessary information in order to situate the Temple Pyramid Groups and pyramid offerings which are the main foci of this study.

The second chapter describes the archaeological discoveries located at Cantona's ceremonial constructions. In all ten Temple Pyramid Groups examined, a large number of human remains were discovered which yield invaluable information about Cantona's temple pyramid rites. The chapter begins by detailing the discoveries made in each of the ten Temple Pyramid Groups. An overview of the human remains is then provided, discussing points such as age, sex, and differential mortuary treatment between the numerous burials. It is observed that individuals located in a flexed, seated position follow a certain burial pattern and do not appear to have undergone the violent decapitation, defleshing, dismemberment, flaying, exposure to fire, and possible cannibalism that is observed in the other Temple Pyramid Group finds. The very limited iconography available from Cantona from the time period in question is also analyzed and serves to provide a weak indication that the Temple Pyramid Group rites were conducted with agricultural fertility in mind.

In the third chapter, the discussion will focus on contextualizing Cantona within the broader Mesoamerican sphere inside of which the city was developing. This section will first discuss concepts of culture and ideology as well as ideas surrounding ideology, ritual and the state. Since most Classic Period Mesoamerican groups were organized into state societies and Temple Pyramid Groups were sacred spaces to which access was

restricted, the role of individual actors and elite leaders in a culture's religious practices will be discussed. The value of putting Cantona in interregional context will then be addressed by highlighting the fact that the iconographic evidence available from Cantona offers only a very tenuous understanding of the ceremonies conducted at the Temple Pyramid Groups. Established trade networks between Cantona, the highland region and the Gulf coast however, allowed for the movement of goods but also of beliefs and ideologies between groups and Cantona would have been influenced by neighboring polities. The absence or presence of practices similar to those discovered at Cantona in neighboring areas where the ritual ideology is better known, will help to further understand the ceremonies conducted at Cantona's Temple Pyramid Groups.

The third chapter will address the iconographic and archaeological evidence of Mesoamerican ideological and ritual themes. Here, the concepts of "ideology" and "ritual" as well as the Mesoamerican conception of the body and death will be discussed. Artistic depictions and archaeological finds from Teotihuacán, the Gulf Coast and the Maya area will be used to address ideological currents in these areas. Ritual body treatment as observed in archaeological contexts and in iconography will be examined and the presence of symbolic elements such as shells or prismatic blades associated with ritual deposits will also be discussed as it relates to the ceremonies practiced.

Chapters 4, 5 and 6 each examine the ideology and iconography as well as the human remains located in temple pyramids, altars and large ceremonial spaces in three distinct geographic areas around Cantona. Chapter 4 focuses on the Valley of Mexico, dominated in the Classic Period by the city of Teotihuacán. At its peak, Teotihuacán was the largest city in Mesoamerica and enjoyed a great amount of political, economic and religious influence that stretched into modern-day Guatemala. The region directly to the east of the Valley of Mexico is the Puebla-Tlaxcala block, which is discussed in Chapter 5. This region, criss-crossed by trade routes that connect far-off regions of Mesoamerica, is the one in which Cantona itself is located. Demographic changes in this region at the end of the Formative Period led to the depopulation of previous population centers and fueled the growth of cities such as Cholula which also became a very important cultural center during the Classic Period. Two other sites, Xochitécatl (Late Formative) and Cacaxtla (Late Classic) provide further information about Puebla-Tlaxcala religious and

ritual beliefs. The final region discussed in these chapters is the Gulf coast area, detailed in Chapter 6. Cantona is located at the crossroads between the highlands and the Gulf and a large amount of evidence indicates that Cantona and the Gulf were important exchange partners. Texts from Tres Zapotes and La Mojarra as well as iconography from El Tajín and human remains from Cerro de las Mesas all provide clues as to the ideological beliefs of the Gulf Coast inhabitants during the time period in question. The information about ideological beliefs and associated mortuary treatment from these areas will be used to understand in much more detail the Temple Pyramid Group finds at Cantona.

The seventh chapter takes the information obtained from Cantona as well as from the three surrounding regions and draws upon further examples from conquest-era texts to provide a much more detailed analysis of the human remains at the summit of the Temple Pyramid Groups at Cantona. The chapter is broken into sections discussing the various mortuary treatments at Cantona and whether they relate or not to the known ritual acts from neighboring polities. The burial of flexed, seated individuals is the first of the finds to be explained, followed by human skulls, evidence of dismembering and defleshing, flaying, boiling and burning, and concluding with human heart extraction.

The eighth and final chapter summarizes and concludes the analysis of the discoveries made at Cantona's temple pyramids, first within the context of Cantona itself and then within the larger Mesoamerican world. The concepts of bloodletting, sacrifice and fertility which are consistently present throughout the Mesoamerican worldview will be discussed in relation to Cantona. By means of these analyses and comparisons, the ceremonies conducted at Cantona will be seen as careful burial of religious actors (in the case of the seated, flexed burials) or as rites conducted to achieve communication with supernatural beings, channeling regenerative power and thus ensuring the continued fertility and prosperity of the region. The importance of the Temple Pyramid Groups as the sacred locale where these ceremonies were conducted will also be reflected upon and proposals for further investigations will be made.

1.

The Archaeological Site of Cantona: An Overview

1.1 History of Archaeological Investigations at Cantona

Cantona's first appearance in the historical record occurs at the end of the 19th Century where it is briefly mentioned in an article by Enrique Juan Palacios. The Swissborn Henri de Saussure however, is generally considered as the first "discoverer" of Cantona, as he was the first person to locate the site geographically, visit it and describe it. In the first half of the twentieth century the site was periodically mentioned by Miguel Sarmiento who visited it to take photographs and draw up sketches. Sarmiento also published a short article about Cantona in a Puebla newspaper. Other archaeologists and researchers such as Paul Gendrop, Ignacio Marquina and Eduardo Noguera continued to show interest in the site throughout the first half of the twentieth century (García Cook and Merino Carrión 1996b:4).

Beginning in the mid 1900s, the site was the target of heavy looting, conducted mainly under the direction of a certain Señor Limón, a wealthy landowner from the region who, as local urban legend has it, traveled as far as Germany, Austria and Egypt selling stolen pre-hispanic artifacts. With the creation of the Puebla Institute of Anthropology and History (Instituto Poblano de Anthropología e Historia) in 1959 however, Cantona became the subject of increased academic interest. Fausto Marín Tamayo, the first director of the IPAH designed a project with the intent of better investigating the archaeological site. Although Marín Tamayo's project was never realized, other investigators such as Eugina Shepperd and Franz Turner both studied the zone, and Turner's results were published in a Puebla newspaper. In the 1970's Peter Tschol and Herbert Nickel collaborated in the creation of an archaeological and ethnohistorical catalogue of the Puebla-Tlaxcala region in which they offer ample historiographical information about the site. Diana López de Molina is credited with beginning the mapping of Cantona in the 1980s, conducting a number of fly-over's to obtain aerial photographs as well as carrying out ground surveys. In this way, López de Molina was able to map 80% of the site (García Cook and Merino Carrión 1996b:4). In 1992, a new project, whose aim was to study the origins and development of Cantona was planned and, in compliance with government instructions, a selected portion of the site was excavated, restored and opened to the public in 1994 (García Cook 2009:115). Since then, a survey area of the entire city has been carried out and exploration and reconstitution of the site has continued with the restoration of selected roads and buildings appreciable during a three hour long tourist walk through the city. Excavations carried out at the top of temple pyramid U71-1, which served as the springboard for this thesis, were conducted within the excavation-restoration framework that is the current basis for archaeological investigation at Cantona.

1.2 Site Location and Time Period



Figure 1. Map of central Mesoamerica showing important Classic Period sites.

The archaeological site of Cantona stretches over more than 12 km² and is located on the eastern edge of Mexico's central highlands in the Valley of Oriental in the modern state of Puebla, about 115km west of the Gulf Coast (Figure 1). The climate is temperate and dry, with only 700mm of rainfall per year

and an average temperature of 16°C (García Cook and Merino Carrión 1998:191). The site is located on a *malpaís*, a Pleistocene-era lava flow of andesite and basalt over which only a shallow layer of topsoil has accumulated. The vegetation in the area includes tall grasses and palms, yuccas and scattered coniferous trees. Despite the fact that vegetation has grown in the area for several million years, very little sediment has built up so that the majority of the site contains thin soil of poor quality or no topsoil at all (García Cook and Merino Carrión 1996a:61). The region is, however, rich in volcanic stone as well as dark volcanic obsidian glass which was highly coveted in Mesoamerica. In the area

surrounding the site, clay and limestone deposits are also common. Fresh and saltwater lakes provide lacustrine resources and during the rainy season temporary streams carve their way through the countryside (García Cook and Merino Carrión 1998:191).

The site of Cantona appears to have been occupied continuously from 600 B.C. through 1000-1050 A.D. In 2003, newly obtained carbon-14 dates helped establish the phases of occupation at the site, dividing occupation into Cantona I (from 600 B.C. to 50 A.D.), Cantona II (from 50 to 550-600 A.D.), Cantona III (from 550-600 to 900 A.D.) and Cantona IV (from 900 to 1000-1050 A.D.). Very few details have been established about Cantona I. Ceramics and figurines dating from this period have been found but, for the moment, little is known about the architectural elements and social dynamics pertaining to this time period. The Cantona II phase marks the first period of major expansion at the site, due in large part to demographic changes that affected the entire highland area. With the decline of the Tezoquipan and Payuca cultures, people were drawn to newly emerging sites; among them Teotihuacán, Cholula and Cantona. The population inflow fueled Cantona's existing local and regional exchange system which was heavily reliant on the obtaining, working, and moving of obsidian. For Cantona, this period ushered in an era of high social complexity accompanied with increased site size. By the middle of Cantona II, the site was home to perhaps as much as 50,000 inhabitants and grew to contain twenty ballcourts (García Cook 2003:311-313, 2004:93-97).

There is strong indication that a *coup d'état* rocked the city around 550-600 A.D., resulting in the almost complete elimination of Cantona's already weak theocratic character and the accession of a much more militarized government. Despite the political upheaval, the site continued to expand its regional and mercantile control during the Cantona III period, reaching its maximum size and its largest population of between 87,000 to 93,000 people around 800 A.D (García Cook et Martínez Calleja 2008:133). At contemporary moments in the highlands, militaristic and defensive sites such as Xochicalco and Cacaxtla were also experiencing population growths. Around 900 A.D., at the start of Cantona IV, the city began to decline and was completely abandoned by the years 1000-1050 A.D. As of yet there are no C¹⁴ dates available for Cantona IV and it is possible that the estimated duration of this phase is too long (García Cook 2003: 313, 2004:93-97, García Cook et Martínez Calleja 2008:133).

1.3 Architectural Characteristics

1.3.1 General Overview

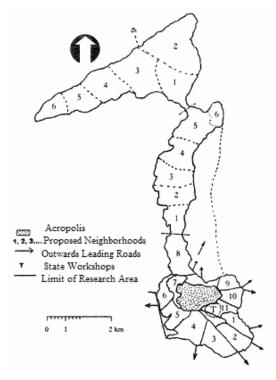


Figure 2. Map of Cantona. (From Martínez Calleja 2004:138)

Seen from above, Cantona's general layout resembles the number seven (Figure 2). The site can be divided into three sectors, the Northern Zone (corresponding to the top bar of the 7), the Central Zone (the upper half of the 7's downwards slash) and the Southern Zone (the lower half of the downwards of the slash). Most archaeological work at Cantona has been carried out in the Southern Zone which covers an area of about 80ha and contains the Acropolis - the site's main civic and ceremonial center. The construction of the site was done in accordance with the area's that pyramids, plazas, topography SO

residences and roads follow the layout of the low hills and natural depressions of the *malpaís*. The effort made to adapt to the natural terrain results in constructions which are

highly asymmetrical; temple pyramid constructed on a slope may have five superimposed platforms on its downhill face but only two platforms on the uphill side. In certain cases, all four sides are built with a different number of platforms. Cantona's architects seem to have embraced this lack of symmetry which was heightened in certain pyramid's alfardas whereby the opposite



Figure 3. Asymmetry in Cantona's construction as seen by comparing the right and left sides of the temple pyramid staircase. (Photograph: Isabelle Meehan).

balustrades of the same staircase did not have the same form (Figure 3). This asymmetry, constant throughout the site, is highly unusual in Mesoamerica and rejects the aesthetic and architectural norms of the Classic Period, when most of Cantona's temple pyramids were built. Cantona was a highly fortified city and became increasingly so in the Late Classic Period. At its height, ditches and palisades surrounded the site and were also present at different points within the city's borders. Watch towers and checkpoints were placed along Cantona's main axes and entrances, allowing both the surrounding area and the interior of the city to be monitored (García Cook 2004:98-99, García Cook and Merino Carrión 1998:61, Nalda 1998:34).

1.3.2 Construction Methods

None of the walls or structures within Cantona were constructed with cement or mortar to hold the stones together. Instead, large and medium stones were placed on top

of one another with small stones filling in the gaps. As a result, no wall in Cantona over 50cm tall is completely vertical; generally walls have a slight backwards slope. In the case of the temple pyramids, all the platform faces (taludes) are sloped at varying degrees. To avoid having the weight of the building resting on the construction's facade, thick retaining walls made of flat



Figure 4. Differential use of colored stone in altar with white cantera for the stairs and gray basalt for the platforms (Photograph: Isabelle Meehan).

stones were constructed inside the pyramid, upon which the platform faces leaned (García Cook 2004:98-100). Contrary to what is found in Teotihuacán and other Mesoamerican sites, there is no indication that the exteriors of Cantona's buildings were ever covered with smooth earth or plaster. Rather, construction facades were decorated by means of manipulating the color and texture of the stones used (Figure 4). Basalt, generally black, blue or gray in color, was the stone most commonly used to build walls.

Rust-red *tezontle* adorned building faces while whitish-gray *cantera* was used for steps and balustrades as well as for floors and pathways in elite homes. Bright white limestone appears more closely associated with areas linked to ceremonies and religious rites – it was used as ballcourt markers and flat gravestones and was also carved into sceptre-like objects and other elements associated with power (García Cook 2004:99-100). A prehistoric quarry of volcanic stone was located at Cerro de las Águilas about 300m southwest of the site's border. The quarry is connected to one of Cantona's roads by a 500m causeway along which stones were most likely transported (García Cook 2003:317).

1.3.3 Streets and Roads

The inside of the city of Cantona was criss-crossed by a complex network of avenues, streets, walkways, alleys, landings and sidewalks all of which were paved and built directly at or below ground level or on raised embankments (Figure 5). The majority of this network was put in place during Cantona II and Cantona III, although certain routes in the Acropolis date back to Cantona I. In the Acropolis, the pathways and avenues were constructed below ground level, often surrounded by walls whereas streets in the residential areas were generally elevated from 0.8 - 2.8m above the ground.



Figure 5. Paved Road in Cantona's Southern Zone. (Photograph: author).

These were also marked by lateral walls. Roads were outfitted with stairs and ramps to facilitate movement over the uneven terrain. In all, 823 different roads and pathways have been identified at Cantona, although many more probably existed. Of the 823 known, fifteen can be considered avenues. These avenues were major city arteries and followed trajectories over 500m long, twelve of which converged inside the Acropolis.

The movement of people inside Cantona was highly controlled by a number of checkpoints located at the entrance of the city, throughout the residential zones and

around the Acropolis. There existed about twenty gates to enter Cantona's Southern Zone, but there were only nine or ten access-points to the Acropolis. Entrance areas were often marked by guard platforms measuring about one meter in height and containing one or two rooms (García Cook and Merino Carrión, 1996a: 72-73, 1998:205-208, Martínez Calleja 2004:134-136).

Despite the fortifications and high walls, the city of Cantona was connected to the surrounding region by a dozen paved roads, most commonly located to the south and east. These roads also served to cross the difficult *malpaís* terrain with more ease. It appears that these paths linked Cantona to more agriculturally and resource-rich areas outside the *malpaís*. Agricultural production in the valleys to the west of Cantona would probably not have sufficed to support the large city's population. In the region directly to the south however, turning towards the Sierra de Citlaltepec, the Pico de Orizaba and the Cofre de Perote mountains, the soil was rich and produced high yields of corn and beans. The prehispanic towns in this area share architectural characteristics with Cantona including cobblestone roads and ballcourt complexes. The ceramic assemblages found in this region are also identical to those discovered at Cantona. It is quite possible then that populations to the south and south-east of the site helped to provide for the needs of Cantona's population through exchange or the paying of tribute (García Cook 2003:339, 2004:99-101, Martínez Calleja 2004:130).

1.3.4 Residential Complexes

Like the civic and ceremonial structures, the residential buildings in Cantona also followed the natural terrain. In the Southern Zone, right beneath the Acropolis (which was built at the highest point of the site), sit a large concentration of elite homes, while further down slope and located at a greater distance from the main civic and ceremonial center, commoner homes become more frequent. This model is found elsewhere in the site where elite residences are located on higher terrain and on hill slopes while commoner housing is located on lower-lying areas. Elite houses were distinguished from commoner homes by their size and the number of rooms associated with them. Generally, the elite lived in two or three-room complexes measuring about 750m² with a

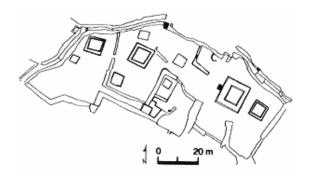


Figure 6. Plan of Elite Residence (Housing Unit 12). (From García Cook and Merino Carrión 1998:207).

paved courtyard in front. Inside this structure, there was only one large habitational unit platform, averaging 72m² (Figure 6). In contrast, non-elite habitational units covered an average area of about 900m² but contained 2 to 6 platforms for the construction of multiple homes, indicating a more

cramped living area possibly reserved for members of an extended family (García Cook 2003:319, García Cook and Merino Carrión 1996a:64-65, Martínez Calleja 2004:126-129).

All homes, whether elite or non-elite, shared a number of characteristics. All were constructed on foundations that levelled the ground on which the house was to be constructed. Each unit was surrounded by tall walls and narrow alleyways that ran between the walls and connected every home to a larger street. Stairs, ramps, and "private" walkways were also used to access roads. Inside the residential compound, the courtyard was the main center of activity where the majority of domestic tasks took place. When a member of the family died, he or she was buried in a wall or under the house floor, thus remaining with the family. This funerary pattern, associated with household burials, is very different from the human mortuary treatment observed at Temple Pyramid Groups (García Cook and Merino Carrión 1998:203, Martínez Calleja 2004:130).

1.3.5 Civic and Religious Constructions

The largest and most impressive constructions at Cantona include buildings which were used for civic or religious activities. Among these are two large open plazas, measuring 200m x 80m and 160m x 70m, located between the Central and Southern Zones of the site. Each was surrounded by a low wall and contained low platforms. These two open areas may have served as market places or as areas for merchandise exchange (García Cook and Merino Carrión 1998:197). Also within the category of civic and religious constructions is the Temple Pyramid Group – a general term which is used

here to describe a temple pyramid and the platforms, plazas and constructions directly associated with it. Many of the Temple Pyramid Groups follow a structural organization

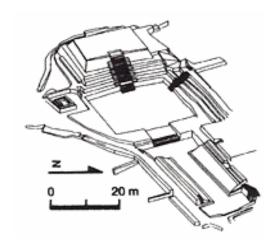


Figure 7. Cantona Ballcourt Complex 6 with aligned temple pyramid, plaza, and I-shaped ballcourt. (From García Cook and Merino Carrión 1998:203).

unique to Cantona known as a Cantona Ballcourt Complex (CBC). These complexes are composed of step-platform temple pyramids at one end, which open onto one or two plazas. The plazas are surrounded by superimposed walls and sometimes contain an altar in the center. On the side opposite the temple pyramid, the plazas link to a ballcourt whose axis follows that of the complex (Figure 7). The pyramid-plaza-ballcourt pattern is found repeated thirteen times in Cantona, six

examples of which are located within the Acropolis (García Cook and Merino Carrión 1998:200, Martínez Calleja 2004:132). As all constructions at Cantona, these complexes follow the natural topography and ballcourts are always located on slightly lower ground than the temple pyramids, emphasizing their sunken nature in comparison to the pyramids' height.

Not all the administrative and religious constructions at Cantona follow the Cantona Ballcourt Complex layout. Architectural units such as closed plazas, individual pyramids and ballcourts which do not belong to any aligned group, are found throughout the site. Within the Acropolis, three of these units have been excavated and restored. These are the Central Plaza (also called the Plaza of the Fertilization of the Earth due to the number of large sculpted stone phalluses found there), the East Plaza (El Mirador), and the Palace. Each of these units contains a pyramid with a central staircase at one end and has low, two-tiered walls which border the associated plaza. As with the other constructions at Cantona, the pyramids are highly asymmetrical in accordance with the terrain, so that the pyramid associated with the Central Plaza has three tiers on one side but its east (and main) facade has five. The front (west) face of the East Plaza pyramid has three superimposed levels while the north and south faces have nine tiers each. In

contrast, the east side only has one level before the top. The pyramid stairs are also different – some of them, such as that of the East Plaza pyramid have wide stone borders while the temple pyramid at the Palace has two stairways without borders as well as a ramp to access the top (García Cook and Merino Carrión 1996a:69-71, 1998:197-200, Martínez Calleja 2004:132).

1.3.6 Ballcourts

Twenty-five ballcourts have been found at Cantona, the highest number known for any site in Mesoamerica. Fourteen of these ballcourts are part of Cantona Ballcourt Complexes and nineteen are found in the site's Southern Zone. Other ballcourts are located within residential zones or in the Central and Northern Zones and are associated with secondary civic and religious complexes. Despite the large number of ballcourts, as of yet there is no indication that all were used at the same time. These courts, like the temple pyramids, have unique characteristics which distinguish one from the other. There is a wide variety in the size of the courts as well as in the angle of the walls and the court's orientation. Generally, the center of the ballcourt was indicated by round limestone markers which number anywhere between one and five, depending on the court (García Cook and Merino Carrión 1996a: 68-69, 1998: 200-203).

1.4 Economic Activity: The Obsidian Trade

The natural landscape of the central Mexican highlands is composed of mountain peaks and narrow valleys, dotted with extinct and still smouldering volcanoes. An anecdote recalls that when the King of Spain asked Hernán Cortés to describe the Mexican topography, the conquistador crumpled a piece of paper and, opening it back up, handed it to the monarch. Although this episode is most likely fictional, it offers a relatively realistic way of envisioning the Mexican landscape. Despite the lack of native pack animals and the potential challenges involved in trading in such an environment, prehispanic Mesoamericans were adept in moving a large variety of goods from one place to another, making full use of waterways, valleys and mountain passes.

In their article *Investigación arqueológica en Cantona, Puebla*, Ángel García Cook and Leonor Merino Carrión (1996a:56) propose the existence of a prehispanic exchange corridor about 10 km wide running through the rugged Mexican highlands. This so-called "Teotihuacán Corridor" began near the modern town of Apizaco and ran south-east towards Huamantla. There, the passageway forked, one route descending towards modern-day Acatzingo, Puebla, and continuing towards the states of Guerrero and Oaxaca while the other, larger route turned east and made its way to the Gulf Coast. North of Apizaco, the path was easy to Teotihuacán and the large city utilized this corridor to move goods to and from its core. Small Teotihuacán enclaves identified along the corridor support the theory that it was by means of this route that Teotihuacán remained in contact with neighboring regions, Puebla-Tlaxcala and the Gulf coast in particular (García Cook and Merino Carrión 1996a:15). A recent GIS study by David M. Carballo and Thomas Pluckhahn (2007) maps the plateaus, valleys, mountains and volcanoes of the area and, calculating that the movement of people and goods would have been carried out on foot, determines that the fastest and easiest way to arrive at the Gulf Coast from the Valley of Mexico and the highlands is through the use of the Teotihuacán Corridor. It is very unlikely, however, that Teotihuacán held exclusive rights to the passageway and it appears that Cantona, located 30 km from the corridor's edge, also made use of this thoroughfare.

A large part of Cantona's commerce involved the working and trading of obsidian. As Nicholas J. Saunders (2001:221) states, this "dark volcanic glass, [...] in the absence of metal tools, underwrote the economic and symbolic life of every major Mesoamerican culture for some three thousand years". Obsidian is obtained from ancient lava flows where the material can be mined or simply collected from the surface. It can be worked to form razor-sharp blades which were used as the Mesoamerican tool *par excellence* in both domestic and ritual contexts (Hirth 2006:3). This coveted material was also believed to possess supernatural qualities and in the Postclassic Nahua world, the glass was thought to be an embodiment of the "cosmic and earthly identity" of the inhabitants near its source. Obsidian was also associated with one of the Aztecs' most powerful deity, Tezcatlipoca, whose emblem, a smoking obsidian mirror, symbolized power and rulership (Saunders 2001:222).

Cantona is located 7 km away from Zaragoza-Oyameles, an extremely rich source of the highly coveted dark black glass. The close association between Cantona and Zaragoza-Oyameles obsidian is seen in Neighborhood 3 of the city's Southern Zone. This neighborhood, which covers over 13.5 ha, contains 332 workshops specialized in obsidian working, especially the creation of nuclei and prismatic blades. Starting in the late Preclassic and continuing through the Classic Period, Zaragoza-Oyameles obsidian pre-forms are found in Gulf Coast sites such as Palo Errado and Tres Zapotes as well as in the Chalcalapan region of Veracruz, Matacapan, and elsewhere in the Sierra de los Tuxtlas area. Zaragoza-Oyameles obsidian has been located along the southern Veracruz lowlands up to 150 km away from its source, and lesser amounts were traded inland into the Puebla-Tlaxcala region. Although green Pachuca obsidian and gray Otumba obsidian, both believed to have been mined and controlled by Teotihuacán, are also found along the Gulf Coast, these do not appear as frequently as the Zaragoza-Oyameles type. In Palo Errado and other central Gulf Coast sites, Zaragoza-Oyameles obsidian is the dominant material used in stone tools and it is found in both domestic and ritual contexts. It is no coincidence that the large increase of Zaragoza-Oyameles obsidian in the Gulf Coast in the late Preclassic Period occurs around the same time as Cantona's first population boom, towards the end of Cantona I/beginning of Cantona II, during which the site asserts itself as a regional power and expands its exchange networks (García Cook 2004: 104, Knight and Glascock 2009, Stark et. al 1992:234).

1.5 Social Organization

García Cook (2003:341) describes the population of Cantona has having been divided among three general social ranks. At the top was the ruling class which collected tribute from satellite settlements, set up and administered city defenses, and controlled the production and movement of obsidian objects for both internal city consumption and export. This group would have been comprised of Cantona's top political, religious and military minds. As elsewhere in Mesoamerica, it is probable that there existed no clear distinction between these many functions and that the city's governors were simultaneously political leaders, religious authorities and military generals.

The second social class at Cantona was an intermediary class composed of architects, engineers, middle-rank soldiers, specialized obsidian craftsmen, and merchants. Also included in this group were second-tier priests or religious figures who would have ranked higher than the general population although without the same power as the supreme rulers.

The more populous lower class would have been made up of miners, masons and architectural laborers. Since Cantona has little agricultural soil, it is unlikely that many residents of the site would have been full-time farmers although some may have worked the land immediately surrounding the site.

1.6 Cantona Summary

During the late Preclassic and Classic Period, the city of Cantona was a growing regional power. With an increasing population, more residences and new administrative and ceremonial complexes were built in accordance with Cantona's unique architectural aesthetic. Rather than embrace the use of symmetry and decorate floors, walls, and pyramid faces with white or brightly painted stucco as was common in neighboring areas, Cantona's architects manipulated the colors of the locally available stone to create a city that mimicked and followed the contours of the natural landscape. The city's main civic and ceremonial center contained a high number of Temple Pyramid Groups among which were Cantona Ballcourt Complexes, a unique building configuration containing an elevated temple pyramid, a plaza and a ballcourt. These structures, predominantly located within the Acropolis, were among the many civic and ceremonial buildings that dominated the site. A complex network of paved streets and roads connected each section of the city to the rest and extended out across the *malpais*, linking Cantona to more fertile regions to the south and east. Cantona also quarried, worked and traded obsidian, especially with polities in the Gulf Coast by means of the "Teotihuacán Corridor" near which it was located. The constant flow of ideas that accompanied the movement of material goods would have streamed through the city, influencing and contributing to the practices and beliefs of the inhabitants of Cantona.

Excavation and Discoveries at Cantona's Temple Pyramid Groups

2.1 Excavation

The contents of the Temple Pyramid Groups at Cantona have been intermittently studied. Since the goal of the Cantona Archaeological Project has been the survey and restoration of the site to build it up as a tourist destination, temple pyramid summits have often only been excavated by means of one to three 1x1m or 2x2m test-pits. A few pyramid summits, however, have been more thoroughly excavated; these include the summit of the Cantona Ballcourt Complex 5 and, more recently, the structure U71-1¹ located directly across CBC 5 on the other side of Avenue 1, one of the largest and longest of the site. Often, temple pyramid summit excavations begin by marking an initial test-pit in the center of the building or near a sub-surface structure if any can be discerned. The pit is then expanded according to the elements found, always along one or two meter grids. Elements are photographed and drawn in situ before being bagged and tagged and brought down to the on-site laboratory and storage area where all elements are washed, labelled, sorted, and stored. During the excavation of U71-1, the majority of drawings were made at a 1:10cm scale so that burial elements could be drawn in relative detail while still allowing each drawing sheet to be pieced together to form a comprehensive whole. Burials were numbered in the order that they were discovered and examined briefly in the field before being sent to Mexico City to be more thoroughly analyzed.

General pyramid stratigraphy is relatively uniform from structure to structure. A thin surface layer (5 to 10 cm thick) of humus and small stones is followed by a fill layer of sandy loam mixed with medium to large size rocks. This layer is on average one meter thick and is where the majority of burials occur. In the case of U71-1, the fill layer covered a 30-40cm thick stratum of overlapping mud floors and layers of hard-packed

¹ *U71-1:* In the nomenclature used to identify buildings in Cantona, 'U 71' represents "Architectural Unit number 71" while the number after the dash stands for an architectural element within the unit such as a plaza or platform. In most cases the number one after the dash identifies the largest element in the unit, in this case the temple pyramid.

earth entirely free of rocks and containing very few artifacts. Beneath this last layer was the natural hill surface, containing large outcrops and yellow sandy soil. In U71-1, four burials were found among the natural rocks, two of which were seemingly placed in spaces between large outcrops.

2.2 Dating

Carbon samples found during the excavations were carefully packaged and sent to Mexico City to be analyzed. C¹⁴ dating results from earlier excavations indicate the pyramids were in use during the Late Preclassic and Classic Periods. Since the results from dating the carbon samples obtained from recent excavations such as at U71-1 will not be available for some time, the pyramid summit was dated using pottery typology. Cantona pottery is usually a monochrome shade of black, red or brown, and the most common forms include vases with high walls and *cajetes* (bowls). The majority of ceramics from Cantona appear to have been manufactured locally and do not present dramatic changes in form or in fabrication processes from Cantona I to Cantona III, although the quality of the workmanship decreases over time. There are a few ceramic types which existed only during smaller, more specific time intervals, such as Águila incense burners and Paxtle funerary urns whose maximum dates range from 150 B.C. to 100-150 A.D. Most of the complete ceramic pieces come from offerings associated with certain buildings such as residences and temple pyramids, or with burials.

Pots and vases generally lack handles but have one or two perforations around the top edge through which a string could be attached for hanging. As of yet, a specific ceramic "Cantona culture" has not been identified since the majority of ceramics at the site resemble typical domestic pottery from populations living throughout this area of the *Altiplano*. Certain examples, however, present characteristics common to other areas such as coastal Veracruz or the Oaxaca region. These items are likely to have made their way to Cantona through exchange routes and trade networks that existed between these areas. As of now, ceramic figurines, which are common throughout Mesoamerica, have been found only in small numbers in Cantona and are generally holdovers from the

Preclassic era and incorporated into construction fill (García Cook and Merino Carrión 1998:201, García Cook 2004:104-105, Merino Carrion and García Cook 2007).

The difficulty with dating structures based on pottery sherds and ceramic analysis alone is precisely that, in Cantona, ceramic types representing different time periods are highly similar. Types such as Payuca Rojo, Poleo and Xaltipanapa, who together cover a time span from 250 B.C. – 800 A.D., have color, slip, and hardness characteristics which overlap, making definite identification of specific sherds a difficult task. A recent review of ceramics at Cantona has also caused a revision in the dates of ceramic time periods. The dates obtained for the use of U71-1 are based on an updated ceramic sequence (Table I), provided by Ángel García Cook (personal communication). Based on ceramic analysis, it was determined that the majority of ceramic sherds associated with the summit of the temple pyramid date from Cantona II, corresponding to the time C¹⁴ dates indicate other pyramids at the site are being used.

Table I. Ceramic Sequence at Cantona

Ceramic Type	Date	Cantona Period
Sotolaco	1050/ 1000-700 /650 B.C.	Pre-Cantona
Tezontepec Rojo	750/ 600-300 /200 B.C.	CI
Tezontepec Negro	700/ 650-200 /100 B.C	CI
Payuca Rojo	350/ 250 B.C. -100 /150 A.D.	Late CI/Early CII
Mancuernas	200/ 150 B.C. -200 /250 A.D.	Late CI/Early CII
Aguilas Incensarios	150 B.C 100 /150 A.D.	Late CI/Early CII
Paxtle Urna Funeraria	150/ 100 B.C. -100 /150 A.D.	Late CI/Early CII
Poleo	150/ 100 B.C. -100 /150 - 550/ 550-900 A.D.	Late CI/Early CII
Xixiltepec	150/ 100 B.C. -400 /450 A.D.	Late CI/CII
Tlachichuca	100/ 50 B.C. -500 /600 A.D.	Late CI/CII
Izoteno	50/ 100-600 /650 A.D.	CII
Molongo	50-600 A.D.	CII
Zalayeta	100-600 A.D.	CII
Techachalco	250/ 300-600 /650 A.D.	CII
Ocotitla Ollas Festonadas	250/ 300-600 /650 A.D.	CII
Ocotitla Tricromo	300/ 350-600 /650 A.D.	CII
Mastaloya	300/ 350-650 /700 A.D.	CII/Early CIII
Alchichica	350/400-650 /700 A.D.	CII/Early CIII
Tetipanapa	400-650 /700 A.D.	CII/Early CIII
Tetepongo	450/ 500-800 /850 A.D.	Late CII/CIII
Xaltipanapa	500-800 /950 A.D.	Late CII/CIII
Texcal	400/ 500-1000 /1050 A.D.	Late CII/CIII
Texcalteno	450/ 500-1000 /1050 A.D.	Late CII/CIII
Tepeyahualco	450/ 500-1000 /1050 A.D.	Late CII/CIII
Pochintoc	550/ 600-900 /950 A.D.	CIII

Xonacatlan	550/ 600-850 /900 A.D.	CIII
Ocotepec	550/ 600-900 /950 A.D.	CIII
Cuyuaco	550/ 600-900 /950 A.D.	CIII
Micuautla	600/ 650-900 /950 A.D.	CIII
Tepetolo	600/ 650-900 /950 A.D.	CIII
Tenextepec	600/ 650-1000 /1050 A.D.	Late CIII/CIV
Xalapazco	500?/ 700-900 A.D.	CIII
Xalapazquillo	650/ 700-850 /900 A.D.	CIII
Izote Rojo	700/ 750-1000 /1050 A.D.	CIII/CIV

2.3 Temple Pyramid Group Finds

The information discussed below pertains to ten Temple Pyramid Groups in Cantona's Southern Zone. These include the temple pyramid associated with the Central Plaza and the temple pyramids associated with Cantona Ballcourt Complex 1, Cantona Ballcourt Complex 5, Cantona Ballcourt Complex 6, Cantona Ballcourt Complex 7, Cantona Ballcourt Complex 8, Cantona Ballcourt Complex 9, Architectural Unit 12, Architectural Unit 71, and Architectural Unit 72. All but one (CBC 9) are located in the Acropolis. Tables II.a. through II.j. at the end of the chapter offer more details about burials located at the temple pyramid summits and platforms being discussed and the summary below provides information about the Temple Pyramid Group as a whole.

2.3.1 The Central Plaza (Plaza of the Fertilization of the Earth)

The Central Plaza, located in an elevated point of the Acropolis, was in use between 150 and 600 A.D. The plaza is bordered by stepped platforms which run along its edges and by a temple pyramid on its western side. The architectural unit is accessible by a set of stairs located opposite the temple pyramid which faces east, "looking" into the plaza. Two burials located at the summit of the main structure include human bones that have been boiled, present cut marks, and indicate evidence of consumption by humans. One of these burials was also associated with a cache of unique offerings including forty-eight deer scapulae (also with cut marks), two prismatic blades with heat fractures, a slicer, nineteen obsidian *tranchets*² and an elliptical obsidian knife. The presence of this specific toolkit associated with cut human bone allows Talavera, Rojas and García

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² *Tranchet*: A triangular or rectangular obsidian blade whose cutting edge is not retouched but whose other sides are shaped by pressure flaking (García Cook and Merino Carrión 2005a:315).

(2001:114) to conclude that human sacrifice and dismemberment occurred at the top of the Central Plaza's temple pyramid.

The temple pyramid summit however, is not the only area of the Central Plaza where human remains were found. In the pyramid stairs, an offering of human skulls and long bones was also located along with ceramic elements and *tranchets*. In the floor of the plaza itself, Talavera, Rojas and García (2001:113) note the evidence of cannibalism as well as animal long bones with cut marks. These were found with prismatic obsidian

blades associated with ritual bloodletting. Among the most striking discoveries made at the Central Plaza are nine large phallic stone sculptures buried at the base of the



Figure 8. Phallus sculptures found at base of Central Plaza Pyramid stairs. (From García Cook and Merino Carrión 1998:211).

temple pyramid stairs (Figure 8). This discovery gives the plaza its second name (Plaza of the Fertilization of the Earth) and clearly demonstrates the presence of a fertility cult in Cantona.

2.3.2 Cantona Ballcourt Complex 1

The temple pyramid of CBC 1 rises on the east end of the complex, opening into a large enclosed plaza containing an elevated platform. A ballcourt to the west of the plaza, opposite the pyramid, closes the complex. The excavations at the summit of the temple pyramid at CBC 1 uncovered eight burials, three of which are represented by individual human skulls. Three other burials include concentrations of bones in an irregular arrangement; the bones in one of these concentrations have been burnt and those of a second arrangement belong to a young child of about four years old. The last two burials were found in a flexed and semi-flexed position, oriented towards the northwest, and "facing the ballcourt" (García Cook, Martínez Calleja, and Zamora Rivera 2005:13-17). Associated with these burials were a number of ceramic vessels mostly of Tlachichuca and Mancuernas styles which date the finds to around 150 B.C.-500 A.D.

Also found with one of the skull burials was a jaguar-shaped *ocelocuauhxicalli* - a stone vessel which was used as a receptacle for hearts obtained through human sacrifice.

2.3.3 Cantona Ballcourt Complex 5

The entire CBC 5 consists of more than thirty architectural features and structures, built and modified over three construction periods stretching 800 years, from 200-1000/1050 A.D. The most important of these features are the temple pyramid, Plaza I, Plaza II, and the ballcourt. The ballcourt is located on the west extremity of the complex where it joins with one of the Acropolis' streets on its west end and to Plaza II on its east end. Plaza II, which is delimited by stepped platforms, connects by means of a staircase to Plaza I which is on higher ground. The circumference of this plaza is also bordered by platform walls and a stepped altar is located in its center. The temple pyramid is the highest point of the complex, located on the east side of Plaza I, opposite Plaza II and the lower-level ballcourt (García Cook and Merino Carrión 1997:3-4, Talavera, Rojas and García 2001:100). Thirty-three burials have been located at the summit of this temple pyramid, making it the pyramid with the greatest amount of human remains at Cantona thus far (Figure 9).

The majority of the burials from CBC 5 were placed in a seated, flexed position. Of the seven seated burials where orientation was indicated in the excavation report, there seemed to be no fixed pattern as two were oriented north, two west, one northeast, one east and one southwest. Fifteen seated, flexed burials were clustered in groups along the east side of the pyramid, following a very general north-south axis. In addition to the flexed burials, there were ten irregular concentrations of human bone, three of which showed traces of dismemberment and two of which contained bones which were exposed to fire. One isolated human skull was discovered and was oriented towards the south.

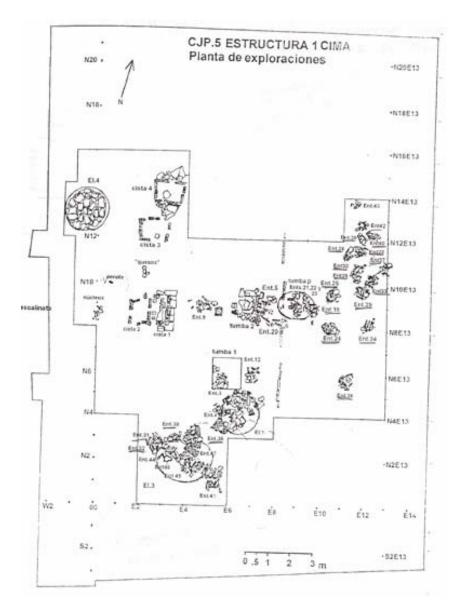


Figure 9. Excavated area of CBC5 summit with burials and stone cistas indicated. (From García Cook and Merino Carrión 1997:33).

Prismatic blades are found throughout the excavated area and associated with a number of burials. Ocotitla style pottery found in Burial 22 and Burial 41 (where the seated individual was actually holding the vessel in his hands) dates the burials to around 300-600 A.D. (García Cook and Merino Carrión 1997). In Cantona, Ocotitla pottery has always been found in burial contexts and was common elsewhere in the highlands, namely in north-eastern Tlaxcala during the Tenayecac cultural phase (100-650 A.D.), where it has also been found predominantly in human burial contexts. A similar style is also known to have existed in Teotihuacán (Merino Carrión and García Cook 2007:151-154, García Cook 1981:263). An anthropomorphic *cuauhxicalli* (stone receptacle for

placing extracted human hearts) was also located, associated with Burial 24 as well as a Tlaloc effigy vessel with Burial 39.

Within the large quantity of finds located at the temple pyramid summit of CBC 5, those of Tomb 3 and "Element 1", are of special importance. Tomb 3 is a walled, circular structure, built on a hardened ash-and-water floor. Burials 21, 22 and 23, consisting of five dismembered individuals and an isolated human skull, were located inside the structure. Along with the human bones, the tomb contained a large number of offerings including five ceramic vessels, a number of stone axes, *tecajetes* (mortars), grinding implements, a pendant made of blue stone as well as a number of greenstone and shell beads. All these elements were arranged around a central conch shell trumpet (*Pleuroploca gigantea*) on top of which a small greenstone pendant depicting a woman with folded arms was placed (García Cook and Merino Carrión 1997:39-45).

The second find that stands out was named "Element 1" by García Cook and Merino Carrión (1997:47) during their excavation of the temple pyramid summit. Element 1 is a cylindrical shaped well, dug into the pyramid fill above the structure's mud floor layer. The structure was filled with basalt and *cantera* stone and contained large amounts of ash. Burial 4, a multiple burial of dismembered and burnt individuals, was located inside the well along with ceramic vessels, deer and dog bones, obsidian fragments and grinding stone pieces. Three fragmented limestone rods, interpreted by the excavators as broken sceptres, were also included in the mix. The remains of three basalt sculptures, representing individuals in a seated position, were also discovered in the structure. These sculptures were intentionally broken and decapitated, their facial features chiseled away before being dumped with the remainder of the elements into this large 'bonfire'. This discovery has been interpreted as the remains of a *coup d'état* which would have occurred sometime around 600-650 A.D., at the onset of the Late Classic Period. It is also around that time that Cantona became increasingly militaristic and that many of the temple pyramids stopped functioning as places of religious action.

Excavations at CBC 5 were not concentrated only at the summit of the temple pyramid. Other finds were made among the platforms bordering Plaza I and Plaza II as well as along those surrounding the ballcourt. Burials 7 and 8, located at the base of the

stepped-platform altar in Plaza I were associated with artifacts related to ritual bloodletting and dismemberment including obsidian prismatic blades, a perforator, boiled human bone, and two *tranchets*. It is quite probable, as Talavera, Rojas and García (2001:100) suppose, that the individuals in Burials 7 and 8 were priests who were buried with tools representative of their trade. Burial goods however, are placed in tombs by the living and do not necessarily correlate directly with the deceased individual's role in society. It is also possible the goods are reflective of how the individuals came to die or of the rites performed by the living during the interment ceremony rather than indicating the social position of the dead.

Evidence of bloodletting, dismemberment, anthropophagy, and the working of human bone was found in Structure 5, located just outside the south wall of Plaza I and in Structure 8, a part of the platformed entranceway separating Plaza I from Plaza II. Structure 8 also contained a human burial with cut marks on the bones. Similar finds were made in Structure 9, on the north edge of Plaza II. On the structure bordering the entrance between the ballcourt and Plaza II, more traces of bloodletting, dismemberment, boiling of human bones and cannibalism were found, as well as throughout the platforms that border the ballcourt (Talavera, Rojas and García 2001:100-102). It can be concluded from these finds that many of the elements located at the top of CBC 5's temple pyramid were not unique to the pyramid but rather reflect practices carried out throughout the entire ballcourt complex.

2.3.4 Cantona Ballcourt Complex 6

The finds at the temple pyramid of Cantona Ballcourt Complex 6, which is smaller than CBC 5, contained an important amount of prismatic blades used in bloodletting ceremonies. Many burials contained bones belonging to people other than the main individuals buried there. These included a sawed epiphysis which may have been part of a headdress and a tube of human bone which possibly served as a container for storing objects. A tool for working skins was also present (Talavera, Rojas and García 2001:104).

A collection of surface materials from this architectural complex revealed burnt human remains, human and animal bones with indications of having been worked as well as traces of anthropophagy. Exploration in the plaza and ballcourt areas also yielded burnt human bones, bones with cut marks, and sawed epiphyses which may indicate the manufacture of human bone tools in this area (Talavera, Rojas and Garcia 2001:105). Other elements, such as prismatic obsidian blades associated with bloodletting as well as a *tranchet* associated with cut bones and located in the ballcourt, point to the acting out of bloody and violent rituals in the whole of the architectural unit.

2.3.5 Cantona Ballcourt Complex 7



Figure 10. Cantona Ballcourt Complex 7 with the ballcourt in the middle ground and the temple pyramid rising behind it. (Photograph: Isabelle Meehan).

Cantona Ballcourt Complex 7 is the largest of all the ballcourt complexes at the site (Figure 10). The complex is slightly skewed off of an eastwest axis, having a southwest - northeast alignment. On the east side of the complex, the temple pyramid arises, containing 39 steps to

reach the summit. In front of these stairs a smooth stela was located and six meters in front of the stela a large platformed altar was built, complete with stairs on its northern face. The altar dates to between 600 and 1000 A.D.; the time period following the proposed *coup d'état* after which a large number of Cantona's pyramids stopped being functional. The altar is located within a large plaza (Plaza I) which communicates with a smaller plaza (Plaza II) by means of a long platformed construction between the two. Plaza II is linked to the ballcourt which is shaped in the form of two crosses joined by the base. Three circular limestone markers are aligned down the center of the ballcourt and an altar with a stela was found on the court's northern side (Talavera, Rojas and García 2001:107).

At the summit of the temple pyramid, a number of finds were located, mainly human bones with cut marks as well as deer scapulae, prismatic blades for bloodletting in rituals, and grinding tools probably used to make pigment along with spheres of red dye. Tools associated with dismemberment and human sacrifice were also located at the summit of the temple pyramid. Perhaps the most interesting one of these tools is a falciform knife traditionally used to extract human hearts. This is the only such example that has been located as of yet at Cantona, although anthropomorphic *cuauhxicalli* heart receptacles were found in other instances. Bone made ceramic polishers were also located at the summit of this temple pyramid.

On the platform connecting Plaza I and Plaza II tools used for bloodletting, human sacrifice, dismemberment, as well as the working of skins were located. Evidence of these practices extends to the ballcourt and its surrounding platforms where red pigment was also ground and where musical instruments were discovered (Talavera, Rojas and García 2001:108-109).

2.3.6 Cantona Ballcourt Complex 8

CBC 8, located in the eastern edge of the Acropolis, consists of a pyramid at the east end followed by a plaza containing an altar and an aligned ballcourt. The ballcourt is connected on its west end to another plaza which in turn is believed to open into another ballcourt. The pyramid was subject to looting and the burnt human bones located in *cista* 1 were moved and piled in the eastern corner of the pit by the looters. If any offerings were associated with the burial these were most likely taken as the only things located were ceramic sherds, lithic fragments and a single limestone bead. The other burial associated with the pyramid was an irregular concentration of burnt bones and a human mandible integrated into the pyramid fill. In a second *cista* in the pyramid, a bowl and a large ceramic pot were located. An analysis of the ceramic materials obtained from these excavations places the use of the temple pyramid from the middle of Cantona I (around 300 B.C.) through Cantona II (600 A.D.). Up until that moment, the Complex was contained within the Acropolis. In Cantona III however, the size of the civic and religious center was reduced and a street was built along the eastern border, effectively

separating the CBC 8's ballcourt from the newly downsized Acropolis (García Cook, Martínez Calleja and Zamora Rivera 2005:25-29).

2.3.7 Cantona Ballcourt Complex 9

Of all the Cantona Ballcourt Complexes included in this study, CBC 9 is the only one that was never part of the Acropolis. The Complex is located in the south section of the site's Southern Zone and is one of many secondary civic-religious centers found throughout the city. The CBC is organized along an east-west axis with the temple pyramid on the eastern edge and the ballcourt to the west. Like CBC 8, this complex was heavily looted and the summit of the temple pyramid was pockmarked with looter's pits. The single test pit made at the summit of the pyramid was in an area with less evidence of looting, in which a *cista* was discovered. Within this structure a body was located in a flexed position laying on its right side along a north-south axis. The individual was complete except for the skull which was missing and appears to have been burnt in the *cista* itself. Associated with the burnt offering was an obsidian point and a scraper, as well as a green and white stone bracelet which was also burnt in the fire. Also found in the *cista* but not associated directly with the burial were a number of ceramic vessels, a marine shell and a stone polishing tool.

2.3.8 Architectural Unit 12

Architectural Unit 12 is located to the north of Cantona Ballcourt Complex 1, in the northwest section of the Acropolis. The entire unit follows a north-south orientation and is composed of twelve integrated structures. At the northern end of the unit is the temple pyramid, whose main facade is oriented south and which opens up onto a large sunken plaza surrounded by superimposed platforms. Excavations at the top of the temple pyramid led to the discovery of a tomb containing three human burials. All of the remains were in an irregular position and the first was located a mere 30cm below the surface, mixed with animal bones, shell fragments and prismatic obsidian blades. Other interments were located underneath a stone 'cap' that was integrated into the tomb construction. The bones discovered in two of the burials belong to individuals who appear to have been dismembered and cut into pieces. In one case, sections of the long

bones, pelvis, ribs, and a few vertebrae were located. Both these burials were associated with other elements, the first containing pottery of Mancuernas and Tlachichuca styles as well as a greenstone earspool, two greenstone beads, and prismatic blades. In the other burial, a ceramic piece with a rectangular base, very similar to an urn, was located. Two sculptures, one zoomorphic and one anthropomorphic, made of *cantera* stone and limestone were also located. Moreover, human bones were incorporated into the tomb walls during its construction. The ceramic types indicate that the structure was in use from 300 B.C. through 600-650 A.D. (García Cook, Martínez Calleja and Zamora Rivera 2005:45-54).

2.3.9 Architectural Unit 71

This architectural unit is located directly across Causeway 1 from CBC 5. Another street runs along the eastern edge of the unit and connects the Acropolis directly to the residential area below. The main construction – the temple pyramid – is oriented west and opens into a large sunken plaza, located on lower ground than the pyramid. The plaza also contains a stepped altar, around which irregularly placed human remains were found. Excavations at the summit of the temple pyramid yielded the discovery of a large rectangular cista in the northeast corner of the structure (Figure 11). Sections of the interior walls of the cista were covered with a thin coating of red-painted stucco, a smooth earthen floor covered the inside and the construction had no entrance from the outside. The interior of the cista was empty except for large rocks and earth. In an opening created in the eastern wall facing the inside of the structure and in the direction of the plaza, a seated individual was placed. The only elements found of this individual were the feet, the lower third of the tibias and fibulas, a complete pelvis, the upper third of the femurs and one radius and one ulna. It is as though the individual, seated with his knees flexed in front of him, was then sawed in half horizontally, the top half having been carried away while the bottom portion remained in the cista. The discovery of these bones in anatomical position suggests that the bones were still surrounded by soft tissue when they were buried (Martínez Calleja 2009: 67-99).

Unlike other temple pyramids such as that of CBC 5, U71-1 contained only the above mentioned *cista*. The remainder of the burials were not located within any recognizable structure and instead were placed directly into the ground. Of the total twenty-five burials

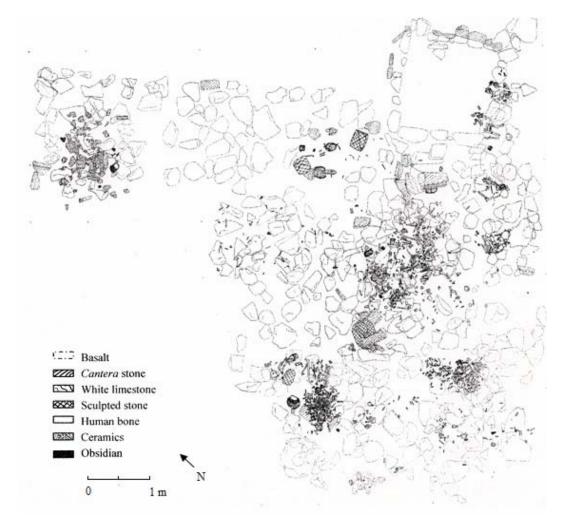


Figure 11. Excavated area of U71-1 summit showing distribution and concentrated areas of human remains. (Drawing: author).

located at the summit of the temple pyramid, seventeen consisted of irregular concentrations of human bone. Many of these bones had cut marks and fourteen of the irregular burials contained bones that had been exposed to fire. Among the remainder of the burials, four were located in seated, flexed or semi-flexed positions, oriented towards the north or northwest. Burial 1 from the August - December 2009 excavation provides a unique case in which the bones were found in very general anatomic position but had clearly been altered, the leg bones being grouped together on the south side of the pit, not articulated with the pelvis. The skull in this burial also shows cut marks along the

forehead, traces which are often the result of flaying. A sternum associated with this burial was perforated in the manner of a pendant and it is likely this bone was an associated grave good.

The majority of the remaining artifacts located at the summit of U71-1 consisted of pottery sherds and prismatic obsidian blades. The ceramic finds help date the use of the structure to the late middle/end of Cantona I and through Cantona II while obsidian prismatic blades – long and thin (4.7cm long, 0.4cm wide and 0.4cm high on average) and found in high concentrations in the ceremonial structure – can be recognized as bloodletting tools following García Cook and Merino Carrión's classification of lithic

material from Cantona (2005a:300). The strong presence of these blades among the recovered archaeological material suggests that ritual bloodletting was practiced at the summit of the temple pyramid. A few other elements discovered warrant a brief comment in this section. The first is a finely made and well polished greenstone pendant



Figure 12. Greenstone duck pendant from U71-1. (*Photograph: author*)

depicting a duck's head (Figure 12). This element was not associated with any burials or any other element. Other representations of ducks have been found elsewhere in Cantona, including CBC 5. A few ceramic elements also stand out. One of these is an offering (Offering 2) of a plate and pot of a shape and fiery red color unknown in the local Cantona ceramic assemblage. A second object was associated with Burial 19 and consists of a black globular pot with impressed grooves on the vessel's body and a half rim circling the neck. Both these elements are similar to pottery types common along the gulf coast. In an excavation at the site of Chalahuite, in the Zempoala region of Veracruz, Yamile de la Cruz Lira López (1982:40-82) identified ceramic groups containing globular vessels with a smooth polished dark brown or black surface. These were also often decorated with parallel grooves. At Chalahuite, these ceramic types correspond to the late Preclassic Period and may have been brought to Cantona as exchange goods along the city's trade networks with the Gulf.

The summit of U71-1 also contained a deep pit in which a number of artifacts were located. Among them were numerous obsidian blades and pottery sherds, two polishing tools made from deer antler as well as the head of a small ceramic figurine. The figurine's style corresponds to Rosa María Reyna Robles' C1 Tradition, Tlapacoya type E2 (1971:42, plate 113, numbers 17-21), commonly found in the Mexico and Puebla valleys during the Late Preclassic (García Cook and Merino Carrión 2005b:643). Figurines are rare in Cantona and often, as may be the case here, older types were used in construction fill. The most important part of this offering is a statue depicting an individual sitting with legs folded beneath the body. The statue, like those discovered at CBC 5, had been broken into pieces, the head clearly severed from the body. The individual's hands rested on his knees and fragments that most likely correspond to the shoulder were decorated with an incised, checkered-like pattern which may represent scarification (García Cook, personal communication). The individual was also wearing a helmet-like headdress with a flat top and it is possible the statue served as a base for a brazier, urn, or other object. Around these objects a large amount of ash and carbon was also discovered. The deposition of these elements at the summit of the temple pyramid may correspond to the time period associated with the sharp change of government that occurred around 600/650 A.D., as evidenced by the burials and similarly destroyed statues found at CBC 5. If the C¹⁴ dates associated with the U71-1 pit correspond to those known for the *coup d'état*, it would further prove that acts of violence associated with the change in leadership in Cantona occurred throughout the Acropolis and that a large number of constructions were affected.

2.3.10 Architectural Unit 72

This architectural unit, located to the south of CBC 5 and neighboring Architectural Unit 71, is aligned following an east-west axis and is composed of a stepped temple pyramid on its eastern end and a sunken plaza bordered by walls to the west. Three of the burials located at the summit of the temple pyramid consisted of irregularly arranged concentrations of human bones, sometimes combined with animal bones or other elements. One offering, located inside a *cista*, and associated with obsidian blades used in bloodletting rites contained two human skulls, one facing east

and another facing west. These appear to have been burnt *in situ* as the surrounding area contained a large amount of ash (García Cook, Martínez Calleja and Zamora Rivera 2005:55-58).

2.4 Review of Offerings and Finds at Cantona's Temple Pyramid Groups

The data collected and put forth above and included in the table in the annex show that the majority of human burials located at the summit of temple pyramids at Cantona were either found in seated flexed or semi-flexed positions or as irregular bone concentrations. Of the total burials in the structures reviewed, 32 were in a flexed or semi-flexed position while 35 burials consisted of irregular concentrations of human bones, often containing more than one individual. Eight burials consisted of individual skulls or groups of skulls, of which only two examples were clearly recorded as having been burnt. Among these, three skulls had facial orientations towards the nadir, meaning they were deposited face-down, while two skulls had facial orientations towards the south, one towards

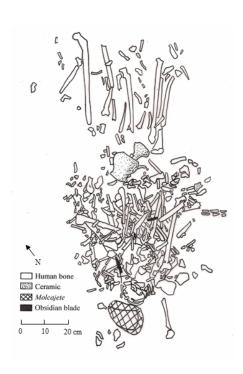


Figure 13. Burial with dismemberment and partial exposure to fire. Burial included 3 skulls, articulated lumbar vertebrae and articulated right elbow joint with sawed humerus, radius and ulna. Burial 16, U71-1. (Drawing: author).

the south-west and another towards the east. This contrasts with the data obtained from the flexed/semi-flexed individuals whose bodies were overwhelmingly oriented towards the north, north-west and west. Of the twenty-three bodies located in temple pyramid summits only, eight had unspecified orientations while six were turned towards the north, four towards the northwest and one towards the northeast. The facial orientation of individuals seated in flexed/semi-flexed positions are predominantly towards the nadir, two face the zenith, while the rest are oriented in the direction of the body, meaning predominantly north and north-west. It is likely the skulls with facial orientation towards

the nadir were originally oriented towards the same position as the body but fell forward during the burial or decomposition process. Although some of the flexed/semi-flexed burials also showed traces of burning and cut marks, these are few relative to the total number of these finds. Among the total irregular burials however (Figure 13), seven of them included bones that displayed cut marks as well as traces of dismemberment. The bones from one burial were found to have been boiled, another contained a skull whose skin had apparently been flayed, and at least sixteen burials contained burnt bones (see appendix for more details).

In Temple Pyramid Group assemblages, burnt bones were easily identified by their color, ranging from black to blue-white or light gray in color. Studies by Guillon (1986) and Buikstra and Swegle (1989) determined that these color changes when exposed to a flame occur only in bones with the flesh still attached or that have been recently defleshed (green bone). The bones from the Cantona burials therefore were not dry bones – which crack and become light brown on the exterior when burnt. This effectively eliminates the possibility that they represented secondary burials of individuals who had died a long time before being exposed to fire. The presence of almost uniformly black long bones, which Buikstra and Swegle categorize as "smoked", in burials such as Burial 6 from U71-1 is especially telling as such uniformity in color only occurs in recently defleshed bone³ (Buikstra and Swegle 1989:252). Since no textual or iconographic evidence exists that refers explicitly to ritual defleshing, it is possible that defleshing falls under the broader practice of human consumption, a possibility also entertained by Medina Martín and Sánchez Vargas (2007:110) in their examination of human osteological material from Calakmul and Becán in Campeche. Further examples of cannibalism at Cantona have been identified by Talavera, Rojas and García (2001) through an examination of cut marks, and boiling and burning practices.

Burnt human remains were often found associated with ash and, in some cases, carbon. This indicates the bones may have been burnt *in situ* and the ceremonies that prefaced their burial were likely carried out in the ceremonial complexes and temple pyramid summits where they were found. These rituals would have included the working

³ Because skin and muscle are of varying thickness and do not cover the bone evenly, when fleshed samples were exposed to fire "parts of the bone became smoked only after the remainder was calcined" (Buikstra and Swegle 1989:252).

of bones to make tools, plus cooking through defleshing, boiling and burning, as well as human consumption.

A more detailed osteological analysis of each burial located in Cantona's Temple Pyramid Groups would provide a clearer view of who these individuals were, but the current data available offers a few glimpses. Because many of the bones are fragile and incomplete, it is difficult to determine the sex of individuals, especially in the field where measurements could not always be taken. A very general overview however, seems to indicate that the majority of human burials were male although a lesser number of females were also present. The individuals represented in the irregular burials represent a wide range of ages. To take the finds at the summit of temple pyramid U71-1 as an example, many of the long bones had unfused epiphyses, indicating they belonged to individuals who were at the very oldest 26 years of age. In certain mandibles or mandible fragments the third molars were not present and in one case were in the process of growing in at the time of death. This reinforces the presence of young individuals – between 15 and 35 years of age - among the temple pyramid remains. Infants and children were also represented among the temple pyramid finds, as in the case of Burial 3 in Architectural Unit 72 or Burial 9 in CBC 5. The frequency of pre-pubescent children at temple pyramid summits is not as elevated as that of adolescents or young adults and no young children are included in the finds of individuals in flexed or semi-flexed positions. The individuals whose remains were buried at the summit of temple pyramids at Cantona were not only youths and young adults. On the summit of U71-1, mandibles and skulls belonging to older individuals were located. On one particular skull the sagittal suture was worn smooth and in two mandible examples, the tooth wear was that of individuals over forty-five years old (as based on descriptions from Lagunas Rodríguez and Hernández Espinoza 2007:64-66). In one instance, the front teeth had fallen out and the mandible itself was significantly worn. The presence of cranial deformation, predominantly tabular oblique, in the skulls of certain burials may indicate individuals who had a certain social standing. Heads with cranial deformations are found in skull burials, irregular burials and in flexed/semi-flexed cases. Whatever the meaning of cranial deformation, whether it was social status, role in the community, ethnicity or something else entirely, it must have been a characteristic determined at the birth; the process of cranial deformation involved strategically pressing a newborn's head between boards, forcing the skull, whose bones are not yet fully fused, to take on a desired shape. At a very young age, the skulls of these individuals were permanently modified in a way that served to visually set them apart from people who had not had this procedure performed.

In summary then, the individuals whose bones are located at the summit of temple pyramids at Cantona appear to represent a wide population range. Both male and female individuals are present and ages range from infants to the elderly. Despite this wide age group, the majority of individuals seem to have been adolescents and young adults. Skulls showing cranial deformation are also present, indicating that the individuals implicated in the ritual acts at temple pyramid summits belonged to certain social groups whose membership was attributed at birth.



Figure 14. Worn and broken mano y metate from U71-1. (Photograph: author).

Grinding tools such as *manos*, *metates*, *molcajetes* (mortars) and *tejolotes* (pestels) were also frequently featured in burial and ritual contexts. The examples located at the summit of U71-1 were smoothed down by repeated use, indicating that these elements had been

utilized for a considerable period of time before being buried at temple pyramid summits (Figure 14). Animal bones also feature in the assemblages related to Cantona temple pyramid finds, especially deer scapulae. The meat from these bones may have been eaten as a part of the ceremonies acted out at the summit of the temple pyramids, but it is also possible that it was the scapulae themselves and not the meat which was sought out for temple pyramid rituals. In other regions of the world including China, Japan and parts of North Africa, scapulimancy – the art of reading the cracks that form on burnt shoulder blades – was a known practice. Divination using bones was also common among the Athabascan and Algonquin groups in North America (Kroeber 1948:477-478). It is possible deer scapulae served a similar role as divinatory tools at Cantona. Along with

these finds, ceramic sherds and prismatic blades used in ritual bloodletting were also among the most frequent elements discovered on the summit of temple pyramids.



Figure 15. Flexed burial with ceramic pot offering (left). Temple Pyramid U71-1, Burial 17. (*Photograph: author*).

From the data available for Cantona therefore, it appears that temple pyramid summits were the loci for a number of rituals involving the decapitation, dismemberment, defleshing, boiling and in certain cases, consumption, of human individuals. Other rituals included the burial of seated. flexed individuals at the summit

of temple pyramids. Because of the positions of these individuals, found flexed in a tight ball where their chin neared their bent knees, it is probable they were bound in this position as a type of mortuary bundle before being buried (Figure 15). Although the facades of temple pyramids are oriented towards a range of directions, the flexed/semi-flexed burials' almost constant orientation towards the north/northwest indicates that this direction carried a particular significance in relation to these burials. No children are included among the burial of flexed, seated individuals and the flexed individuals were not exposed to fire. It appears that these burials represent a separate mortuary practice, one that was much less violent than those observed among the other Temple Pyramid Group finds.

2.5 Cantona Iconography and its Association with Temple Pyramid Group Burials

The data indicate that the structures of the Temple Pyramid Groups were part of an integrated whole composed of religious and civic buildings where a large number of ceremonies and symbolic actions were carried out. A number of these ceremonies included the decapitation, dismembering, defleshing, burning and likely consumption of human individuals. A less violent pattern of mortuary treatment involved burying adult individuals in a flexed, seated position. Having established the types of actions these ceremonies involved based on the archaeological record, the question that begs to be asked is under which circumstances and for what reasons were these actions carried out? In many cases, text or iconography that refers to rites or religious ceremonies offers invaluable insight into the reasoning behind ritual actions. In the case of Cantona, however, very little iconography has been found and none of it directly represents the acts alluded to by the Temple Pyramid Group discoveries. The broken and defaced sculptures and polished ruler's batons found in pits at temple pyramid summits are likely the result of a political overthrow and do not explain the ritual conduct represented by the large majority of the Temple Pyramid Group finds. Other elements, however, linked to finds which predate the *coup d'état*, offer slight hints about Cantona's ritual beliefs. Among these elements is a Tlaloc effigy vessel, discovered at the pyramid summit of Cantona Ballcourt Complex 5. The vessel represents the God of Rain, and suggests that some of the ritual practices at Cantona were related to petitions for water. The presence of a large conch shell, a marine artifact thought to have been used as a trumpet to call

forth rain clouds located with CBC 5 Grave 3 also helps directly to associate the bones of dismembered individuals with water-related rites. Closely associated with rain is wind, whose representative deity, Ehecatl, was depicted as a duck in the Postclassic Period. Α few duck representations have also surfaced at Cantona, among which is included a sculpted



Figure 16. View of Cerro de las Águilas from the summit of the temple pyramid of Cantona Ballcourt Complex 5. (Photograph: author).

basalt slab found at CBC 5 and a carved greenstone pendant located at U71-1. A carving of the sun was also found at CBC 5 as well as another slab on which a representation

made with red pigment of a young maize plant was found (García Cook and Merino Carrión 1997:25). Taken together, these discoveries infer a preoccupation with water and agricultural fertility associated with Temple Pyramid Groups, and the rituals practiced in these spaces were likely to have been linked to those concepts. The theme of fertility is further reaffirmed the phallus sculptures located in the Central Plaza.

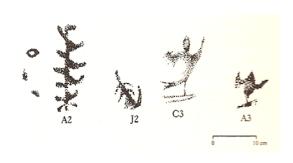


Figure 17. Rock painting of maize plants in different stages of growth, Cerro de las Águilas. (From Morales Vigil 2004:117).

Another source of Cantona iconography comes not from the city itself but from a tall hill called el Cerro de las Águilas situated 300m to the southeast of the city's edge (Figure 16). Used as a quarry and as a settlement for some time, a prehispanic road links the Cerro to Cantona and uniform terraces and lookout

points encircle its hillsides. What makes the Cerro of particular interest is that it is decorated with a number of red rock paintings. Érika Morales Vigil (2004) analyses the rock paintings and concludes that the paintings date from Cantona I and II, the periods during which the Temple Pyramid Groups were in use. According to Morales Vigil, the images painted at the Cerro de as Águilas show maize plants at different stages of growth (Figure 17). If Morales Vigil is correct in her interpretation, then the repeated image of growing maize in sculptures and in rock paintings along with representations of divinities associated with wind and rain from the Temple Pyramid Groups, serve to underline the importance of regeneration and agricultural fertility among Cantona's inhabitants.

Iconography from Cantona during occupational periods I and II appears to focus especially on themes of fertility, water, and the growth of staple crops. The worn down *mano* and *metate* and *molcajete* and *tejolote* located in Burial 16 from U71-1 and another *mano* found in Burial 20 in CBC 5 provide weak hints that the mortuary treatment of bodies at Cantona's Temple Pyramid Groups was associated with agricultural rites. Besides this possible connection, Cantona's burial finds and small sample of iconography provide very little detail in and of themselves as to the ideology behind the

temple pyramid rites. In order to better understand the belief system in which these practices were enacted, Cantona's archaeological record must be compared with that of other neighboring sites where more iconographic evidence is available. This comparison will allow the determination of whether Cantona's ritual practices have parallels elsewhere and help provide clues as to the reasons why such practices were carried out.

Table II. Summary of Finds from Temple Pyramids at Cantona

Table II.a. Summary of Temple Pyramid finds associated with the Central Plazai

S			vith cut with o aving
Associated Elements	None	- Ceramics - tranchers	- 48 Deer scapulae with cut marks - 2 Prismatic blades with heat fractures - 19 tranchets with no indications of ever having been used - 1 elliptical knife
Description	 Human bones present evidence of cannibalism 	- Group of human skulls and long bones	- Boiled human bones - Human bones with cut marks
Facial Orientation	Unspecified	Unspecified	Unspecified
Skeletal Position/ Orientation	Unspecified	Irregular	Unspecified Unspecified
Age	Unknown	Unknown Unknown	Unknown
Sex	Unknown	Unknown	Unknown
Quality of Preservation	Unspecified	Unspecified	Unspecified
Burial Location Minimum Number Number of Individuals	2	Unspecified	Yramid, Unspecified Unspecified lest pit
Location	Pyramid, 2 cista 2	Pyramid stairs	Pyramid, Test pit 1
Burial Number ¹	[1]	[2]	ত

Table II.b. Summary of Temple Pyramid finds at Cantona Ballcourt Complex $\mathbf{1}^{ii}$

Burial Number	Location	ocation Minimum Number of Individuals	Quality of Preservation	Sex	Age	Skeletal Position/ Orientation	Facial Orientation	Description	Associated Elements
Ξ	Test pit 3		Unspecified	Unknown	Unknown	Not Present	Unspecified	- Isolated human skull	- Brazier fragments - Ocelocuauhxicalli - Tlachichuca type ceramic
									not

⁴ Since not all sources provide the burial number of the remains in question, they are presented and numbered here in the order that they appear in the source's text. Because these numbers may not correspond to the numbers given to the finds in the field, they appear in [] brackets. Numbers without brackets refer to the burial number given during excavation.

With Burials [2] and [3]: -Limestone fragments similar to those used for scepures	 - A large Tlachichuca type ceramic pot - A miniature vase - A small seashell - A small brazier 	ગ	JC	-Tlachichuca ceramics	With Burials [7] and [8]:	-2 Mancuernas style ceramic vessels
NW, towards - Lower limbs extended in Wit the ballcourt front of individual while - Lir back is 'resting' against sim north wall of the well scep	- Skeleton was complete - A cera - A - A - A - A - A - A - A - A - A -	- Collection of burnt None bones to the west of Well 3	- Long bone, rib, skull and None vertebrae fragments		- Human skull Wit	- Human skull -2 Man
NW, towards the ballcourt	NW, towards the ballcourt	Not Present	Not Present	Unspecified	South	Southwest
Seated in semi-flexed position	Flexed, leaning to the right	Irregular	Irregular	Irregular	Not Present	Not Present
Unknown	Unknown	Unknown Unknown	Unknown	Unknown Infant, 4(?) Irregular years old	Unknown	Unknown
Unknown Unknown	Unknown	Unknown	Unknown Unknown	Unknown	Unknown Unknown	Unknown Unknown
Unspecified	Unspecified	Unspecified	Unspecified	Unspecified	Poor	Poor
3 1	3 1	3 1	3 1	3 -	3 1	3 1
Test pit 3	Test pit 3	Test pit 3	Test pit 3	Test pit 3	Test pit 3	Test pit 3
[2]	[5]	<u>4</u>	[2]	[9]	[2]	[8]

Table II.c. Summary of Temple Pyramid finds at Cantona Ballcourt Complex $\mathbf{5}^{\text{iii}}$

Burial Number	Platform Number	Minimum Number of Individuals	Burial Platform Minimum Quality of Number Number of Preservation Individuals	Sex	Age	Skeletal Position/ Orientation	Facial Orientation	Description	Associated Elements
_	2	_	Unspecified	Unknown	Unknown Unknown	Fœtal position	North	- Skeleton in foetal position - Feet located under south stair balustrade	- Small black vessel
13	3	_	Unspecified	Unknown	Unknown	Unknown Unknown Anatomical position, no orientation	Unspecified	 Found in anatomical position, although hands, feet and legs were missing 	- 2 ceramic vessels
48	At stair	_	Poor	Unknown	Unknown Unknown Irregular	Irregular	Unspecified	- Concentration of long	- Red ceramic pot

	base							bones and ribs	
				Burials Reco	vered on To	emple Pyramid	Burials Recovered on Temple Pyramid Summit (CBC 5)	5)	
Burial Number	Location	Minimum Number of Individuals	Quality of Preservation	Sex	Age	Skeletal Position/ Orientation	Facial Orientation	Description	Associated Elements
4	Element 1	7	Poor	Unknown	Unknown	200	Unspecified	- Concentration of cut and burnt bones	I large pot with three broken limestone sceptres Three intentionally broken basalt sculptures with faces destroyed Deer and dog bones Grinding tools
S	Grave 2	2	Unspecified	Unknown	Unknown	Not Present	Unspecified	- Contains 2 skulls, leg long bones and vertebrae	Animal bone fragments, including an eagle(?) skull I shell bead Incense pot
o o	Pyramid summit	-	Unspecified	Unknown	Infant	East-West	Unspecified	- Body found in flexed dorsal position	Found beneath cantera slab with incised lines Small jade pectoral placed on pelvis Sceptre Sceptre Lobsidian prismatic blades
13	Pyramid summit	_	Unspecified	Unknown	Unknown	Seated in flexed position	Unspecified	- Only one half of individual found, appears to have been cut longitudinally - Located outside of Grave	None
61	Above mud floor covering pyramid surface	=	Unspecified	Unknown	Unknown	Seated, in flexed position	Unspecified	- Located directly to the East of Tomb 3	- Surrounded by tepezil stone - 2 obsidian blades - 1 metate - 2 metlapil
20	Above		Unspecified	Unknown	Unknown	Irregular	Not Present	- May have been	- Thick cylindrical cantera

Unknown
Unknown

- Small black ceramic vase - Deer antlers	- One individual found holding Ocotitla vessel in hands	- Red ceramic cajete - Black ceramic pot - Ceramic vase	- Grinding tools - Base of a sculpture	None	- Small polished black pottery vessel	- With Burial 39: A vessel showing Tialoc effigy - With Burial 24: basalt anthropomorphic cuaukxicalli -With Burial 25: Ocotitla vessel With Burial 29: 2 Ocotitla cajetes - With Burial 30: tall ceramic vessel with thin walls representing a human
- Body axis follows SW- NE axis - Appears to have been tied in seated position	- One individual is very burnt, the others are not	- Body axis follows East- West axis - Appears to have been tied in seated position	- Body oriented along East-West axis	1	- Body reclined back along North-South axis	- Burials clustered in groups along a north-south axis on the eastern edge of the pyramid
Facing nadir	Unspecified	West	Facing down	East	Facing down	Unspecified
Seated in flexed position	Seated in flexed position oriented S-N, NE- SW, S-N	Seated in flexed position	Seated in flexed position	Seated in flexed position	Seated in flexed position	6 burials seated in flexed position, 5 burials found flexed on their backs, 3 others flexed and on stomach or right side
Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Опклоwп
Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Unspecified	l and 2: Good 3: Poor	Unspecified	Unspecified	Poor	Unspecified	Unspecified
_	3	-	1	-	1	15
Element ²	Pyramid Summit	Element 3	Element 3	Element 3	Element 3	Pyramid Summit
	41	44	45	46	47	24, 25, 26, 27, 28, 29, 30, 33, 34, 36, 41, 40, 41,

² The term "Element" was used by the excavators here to designate a tomb-like structure

Table II.d. Summary of Temple Pyramid finds at Cantona Ballcourt Complex 61

Burial	Location	Location Minimum Number of Individuals	Quality of Preservation	Sex	Age	Skeletal Position/ Orientation	Facial Orientation	Description	Associated Elements
	Pyramid Summit	Unspecified	Unspecified	Unknown	Unknown	Unspecified	Unspecified	Unspecified	- Obsidian prismatic blade - Sawed epiphysis, perhaps
and a river	Pyramid Summit	Unspecified	Unspecified	Unknown	Unknown		Unspecified Unspecified Unspecified	Unspecified	- Skin polishing tool
en en	Pyramid Summit	Unspecified	Unspecified	Unknown	Unknown	Unknown Unknown Unspecified Unspecified Unspecified	Unspecified	Unspecified	Obsidian prismatic blade Obsidian prismatic blade Tube of human bone, Derhans used as a case.

Table II.e. Summary of Temple Pyramid finds at Cantona Ballcourt Complex 7^{1}

ents	tic blades used in
Associated Elements	Deer scapulae Obsidian prismatic blae Grinding tools Falciform knife used in heart sacrifice
Description	- Bones with cut marks
Facial Orientation	Unspecified
Skeletal Position/ Orientation	Unspecified
Age	Unknown
Sex	Unknown
Quality of Preservation s	Unspecified
Burial Location Minimum Number Number of Individuals	Unspecified
Location	Pyramid Summit
Burial Number	Ξ

Table II.f. Summary of Temple Pyramid Finds at Cantona Ballcourt Complex 82

ts	8	rectly burial: t
Associated Elements	- Ceramic fragments - Lithic elements - Limestone bead	- In the cista, not directly associated with the burial: - I large ceramic pot
Description	- Burial consisting of burnt long bones - Bones were piled by looters in the East of the pit	- A mandible and a collection of burnt bones integrated in the pyramid fill
Facial Orientation	Unspecified	Unspecified
Skeletal Position/ Orientation	Irregular	Irregular
Age	Unknown	Unknown
Sex	Unknown	Unknown
Quality of Preservation	Unsepecified	Unsepecified
Burial Location Minimum Number Number of Individuals		
Location	Test pit 12/cista 1	Test pit 14/ cista 2
Burial Number	Ξ	[2]

Table II.g. Summary of Temple Pyramid Finds at Cantona Ballcourt Complex 93

Burial Number	Location	Burial Location Minimum Number Number of Individuals	Minimum Quality of Number of Preservation Individuals	Sex	Age	Skeletal Position/ Orientation	Facial Orientation	Description	Associated Elements
Ξ	Test pit 8/cista 1		Unspecified	Unknown	Unknown Unknown	Flexed, laying on right side along North- South axis	Not Present	- Body found in anatomical position, except the skull which was missing - Appears to have been burnt in situ	- 2 carbon samples - Obsidian point and scraper - Mosaic bracelet with green and white stone incrustations - In the Cista, not directly associated with burial: . 3 vases and one cajete . 6 small pots . A stone polisher
									A marina chall

³ Although located in the Southern Zone, CBC 9 is not in the Acropolis. Rather, it is one of the secondary civic-religious centers that existed throughout the site (García Cook, Martinez Calleja and Zamora Rivera 2005:21).

Table II.h. Summary of Temple Pyramid Finds for Architectural Unit 12^2

Burial Number	Location	Location Minimum Number of Individuals	Quality of Preservation	Sex	Age	Skeletal Position/ Orientation	Facial Orientation	Description	Associated Elements
	Tomb 1	-	Poor	Unknown	Unknown	Irregular	Unspecified	- Group of human and animal bones found within the first 30 cm of the Tomb	- Shell and worked shell fragments - Obsidian prismatic blades
	Tomb I	-	Unspecified	Unknown	Unknown	Irregular	Unspecified	- Found underneath stone 'cap' - Individual appears to have been cut into pieces, sections of long bones, pelvis, ribs and a few vertebrae were located	- Ceramic piece with a rectangular base resembling an urn
	Tomb 1	_	Unspecified	Unknown	Unknown	Irregular	Unspecified	- Found underneath stone - 2 Tlachichuca style ceramic vases - Individual appears to have been cut into pieces - Obsidian prismatic large stone earspecture of the control of the control of the control of the ceramical of the ce	- 2 Tlachichuca style ceramic vases - 1 Mancuernas style pot - Obsidian prismatic blades - 1 green stone earspool - 2 treen stone beads

Table II.i. Summary of Temple Pyramid Finds for Architectural Unit 71

Surial Sumber	Burial General Number Layer	Minimum Number of Individuals	Quality of Preservation	Sex	Age	Skeletal Position/ Orientation	Facial Orientation	Description	Associated Elements
	m	-	Poor	Unknown	Infant	Irregular	Unknown	- Burial consists of long bones and an infant skull with traces of having	- Located in portico of cista - 2 miniature pots - 2 cajetes

- 13 Prismatic blades - 1 Greenstone bead	None	- 2 pots, one Tlachichuca type - Obsidian point - Brazier fragments	None		Associated Elements	- Small clay vase, wedged in space between rocks
	- Located above the east wall of the cista - Mixture of burnt human long bones and animal bones	- Located in SW corner of cista - Contains burnt leg long bones and cranial fragments	- Found seated in a niche in eastern cista wall -Includes feet, distal 1/3 tibias, fibias, complete pelvis, proximal 1/3 femurs, and arm ulnaradii; as though cut in half horizontally and the top half taken away	Burials Recovered on Temple Pyramid Summit (U71-1) During the August - December 2009 Field Season	Description	- Traces of flaying on skull, with cut marks along arm long bones - Body not in anatomical position; leg long bones collected and placed diagonally over pelvis - Sternum found with perforation
	Unknown	Not Present	Not Present	he August - De	Facial Orientation	Facing down, skull on E-W axis
	Irregular	Irregular	Seated in flexed position facing NW	71-1) During t	Skeletal Position/ Orientation	Irregular
	Unknown	Unknown	Unknown	d Summit (U	Age	21 +
	Unknown	Unknown	Unknown	emple Pyrami	Sex	F?
	Poor	Poor	Poor	Recovered on To	Quality of Preservation	Medium
	-	-	_	Burials	Minimum Number of Individuals	_
	-	-	_		General Layer	-
	5	m	4		Burial Number	-

- Aguilas incense burner - Prismatic blades - Possible jade perforator (may have filtered to lower level where it was found)	- Large number of prismatic blades	- Prismatic blades	- Prismatic blades and obsidian plaque	- Ash mixed in with earth around burial - Prismatic blades - Oliva shell beads with perforation, possibly a necklace	None	- 2 ceramic pots (Types: Poleo and Tlachichuca) - Stone receptacle (for grinding pigment?)	- 1 Carbon sample
- Bones burnt and exposed to varying degrees of heat, very fragmented - Individuals not in anatomical position	- Burial consists of burnt fragments of cranial, tibia and other human bone	- Burial consists of small fragments of burnt cranial and other human bone	- Individual in flexed seated position	- Bones dispersed and fragmented except for femurs found in matching pairs - Foot bones found un anatomical position, possible were deposited with flesh holding them together - All bones burnt; dark grey in color	- Bone fragments with no burnt marks, mixed in with bones from Burial 6	- Burnt bone fragments in three concentrations	- Concentration of burnt bones including cranial
Skull 1: E- W axis, facing zenith Skull 2: E- W axis, facing down	Not Present	Not Present	North	Not Present	Not Present	Not Present	Not Present
Irregular	Irregular	Irregular	S-N axis	Irregular	Irregular	Irregular	Irregular
Unknown	Unknown	Unknown	Adolescent under 15 years old	Unclear, 2 adults and 2 children	Unknown	Unknown	Unknown
1M? 1F?	Unknown	Unknown	M ?	Unknown	Unknown	Unknown	Unknown
Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor
74	-	_	_	4	_	-	_
_	_	-	-		_	_	-
61	m	4	9	9	7 and 8	6	0

	s - 2 prismatic blades	None	of None	- 9 rounded river rocks - 2 Ceramic pieces not native to Cantona:1 vase with annular base and incised decoration, and 1 pot with high walls and horizontal incisions	Obsidian scraper e	es - Prismatic bades - Molcajete and tejolote s - Mano and metate - Tlachichuca type pot - Mancuernas type vase - Located directly to the NE of a small cista
and pelvis fragments	- Burnt bone fragments including cranial, vertebrae and rib fragements	- Concentration of cranial and possibly humerus fragments - Located near SW wall of tomb	- Three concentrations of burnt cranial bones and mandibles	- Bone fragments including one long bone and ribs - located directly below Burial 12	Tabular erect cranial deformation Leaning against large rocks placed around head and legs	- Concentration of bones in non anatomical position, leg long bones organized along NE-SW axis - Articulated foot bones and lumbar vertebrae suggest cut into pieces and buried while flesh still onesent
	Not Present	Not Present	Not Present	Not Present	NW, seated with arms down by sides, legs semi-flexed in front	Present in one skull: facing down, pointing North
	Irregular	Irregular	Not Present	Irregular	WW	Irregular
	Unknown	Unknown	Unknown	Unknown	21 +	One individual: 50 +
	Unknown	Unknown	Unknown	Unknown	Е.	Unknown
	Poor	Poor	Poor	Poor	Poor	Poor
	_	_	_	-	_	რ
	_		2	1	m	-
	=	12	13	14	15	91

	- Tlachichuca type ceramic pot	- Seventeen animal claws, possibly from a mountain cat	- Located in bottom of fine, ash-filled pit along with a carbon sample - Associated with a vase not native to Cantona	- Prismatic blades, a pottery shard	- 2 Prismatic blades - 1 stone perforator
-NW area of concentration has burn marks, possible fire made nearby	- Arms found crossed in front of pelvis and legs bent, knees brought up to chin (possibly tied in bundle)	- Skull found crushed by weight of rocks and earth above - Possible tabular erect deformation -Burnt at high temperatures	- Burnt bone fragemnts, mostly longbones in poor condition with a few skull fragments	- Individual skull with no associated bones, upper molars very worn - Slight tabular erect cranial deformation	- Three skulls with differing degrees of preservation - Have been burnt at high tem peratures - One skull; tabular oblique cranial deformation
	North	Facing down, pointing North	Not Present	Facing down, skull oriented East	One oriented east, facing down. Another vertical, facing north
	Seated in flexed position	Not Present	Irregular	Not Present	Not Present
	35 +	Adolescent or adult	Adolescent or adult	45+	One individual : 33 +, others unknown
	M -3	Unknown	Unknown	Unknown	One individual: F, others unknown
	Poor	Poor	Poor	Medium	Medium-Poor
	-	-	-	_	n
	-	2	m	_	٣
į	3	<u>∞</u>	6	50	21

Table II.j. Summary of Temple Pyramid Finds for Architectural Unit 722

Associated Elements	- Poleo style ceramic vase - Obsidian blades	- Deer scapulae - Tlachichuca style pot containing 2 obsidian blades - Green stone ear spool	- Mancuernas style pot - Obsidian prismatic blades	- Obsidian prismatic blades
Description	- Small fragments of human bone mixed with offerings	- Human bone fragments mixed with offerings	- Cranial fragments located in and around Mancuernas style pot - Infant long bones (femur?) combined with other elements	- Appear to have been burnt and large amounts of ash are found around the find
Facial Orientation	Not Present	Not Present	Not Present	One skull facing east, the other
Skeletal Position/ Orientation	Irregular	Irregular	Irregular	Not Present
Age	Unknown	Unknown	Infant (?)	Unknown
Sex	Unknown	Unknown	Unknown	Unknown
Quality of Preservation	Poor	Poor	Poor	Unspecified
Minimum Number of Individuals	1	_	-	2
Location	"Cúmulo" on pyramid summit	"Cúmulo" on pyramid summit	"Cúmulo" on pyramid summit	Cista on pyramid summit
Burial Number	Ξ	[2]	[3]	<u>4</u>

Talavera, Jorge, Juan Martín Rojas and Enrique García. 2001. Modificaciones culturales en los restos óseos de Cantona, Puebla: un análisis bioarqueológico.

Colección Científica. INAH, Mexico

3. Culture, Ideology and Mesoamerica

3.1 Concepts of Culture and Ideology

In order to compare Cantona's Temple Pyramid Group finds with elements known from neighboring cultures, the term "culture" must first be properly defined. Within the context of this paper, culture is considered to be a man-made, historically-constructed framework of concepts, ideas, actions and behaviors passed on from generation to generation which provides a structuring base on which to form social interactions. Culture is organic in the sense that it is consistently being reaffirmed, recreated and/or redefined through the actions of the individuals which comprise it. There are an infinite number of ways culture can be manifested ranging from language spoken, conceptions of kinship, how to cure illness, to manners used to greet strangers or to how to properly hold a fork. As Kroeber (1948:344-345) notes, all the composing elements of culture interact with one another, becoming so indelibly intertwined that their separation, however necessary for discussing them, is artificial.

These indelible facets of culture, which are inculcated in members since birth, structure individual knowledge and action within a given framework. According to Pierre Bourdieu (1980:87-97), societal structures contribute to the formation of individual *habitus*; durable and transferable impressions and dispositions unique to each person and created through their individual social trajectories. Family, community, friends, education and past experience all contribute to the formation of individual *habitus*, which, like culture, is consistently being reworked and reinforced. People, it must be remembered, are thinking, living beings with the capacity to analyze situations and to react to stimuli. Their reactions, however, are framed by the structure within which they exist and "they draw upon that framework in producing their action at the same time as they reconstitute it through that action" (Giddens 1979:144). Individuals from the same society share a number of common characteristics in their *habitus*-forming experience. This commonality enables them to predict (to a certain degree) how their peers will react

to certain circumstances, producing a culturally created but seemingly natural 'common sense' which allows for (generally) smooth social interactions⁴.

3.2 Ideology, Ritual and the State

One of the ways in which culture is manifested, and one of the ways in which Bourdieu's habitus is formed, is through ideology and its accompanying rituals. Since it appears that the actions carried out at the summit of Cantona's temple pyramids – which were civic and ceremonial constructions – were conducted within an ideological and ritual context, it is fitting to examine these two terms before continuing with the discussion of the Temple Pyramid Group finds. These inter-related notions are shaped by one another and are difficult to separate. Ideas and practice, according to Hodder and Hutson (2003:164), are used by groups to make sense of the world. Since ideology is a set of ideas, and rituals are types of practice that express ideology, these two concepts together can be considered as knowledge and actions individuals use to interact meaningfully with their social and natural surroundings. It is through the creation of ceremonies, architecture and symbols that ideology is made tangible. When these are shared among groups, they become key ways in which social consciousness is manifested and reproduced (Geertz 1973:55-86). Going beyond thoughts, rituals and the symbols they involve require the action of participants, giving thus a physical form to abstract ideas.

The term 'ritual' refers to an incredibly wide and varied possibility of action. Bell (1997:102-129) cites four general types of ceremonial rites; rites of passage, calendrical rites, rites of exchange or communion, and political rites. In all their numerous forms, these rituals participate in the creation and maintenance of order; rites of passage highlight social changes in individuals' lives while calendrical rites provide a cultural scheme with which to understand the passage of time, often related to measurable, seasonal changes in the natural environment. Rites of exchange and communion incorporate ways whereby people are able to petition powerful spirits or divinities in the

⁴ Disagreements of course, still occur but both parties will generally turn towards culturally-sanctioned behaviors and concepts to support their side of an argument.

hope of obtaining those entities' favor. The final category, political rites, incorporates a loose group of ceremonies that "specifically construct, display, and promote the power of political institutions" (Bell 1997:128). It is crucial to note that these ritual categories are not mutually exclusive and in fact contain a great deal of overlap. A combination of any or all of these categories can be practiced by any given group at a given time. Since at this point in the discussion of the ceremonies conducted in Temple Pyramid Groups at Cantona, the ideological framework in which the rites were conducted is not known, it is important to be aware of the wide range of possibilities within which the ceremonies may have been conducted.

Enmeshed with ideology and ritual practice are sacred symbols. These elements, which are "dramatized in rituals or related in myths, are felt somehow to sum up, for those for whom they are resonant, what is known about the way the world is, the quality of the emotional life it supports, and the way one ought to behave while in it" (Geertz 1973:127) regardless of how mundane or elaborate they may appear. Religious symbols carry meaning beyond their physical make-up and it is through their associated sense that they become emotionally and spiritually charged. The recognition of a symbol by a group gives it meaning and transforms it into a powerful object. Its potency as an experienceordering entity and as an image that can easily be grasped and understood by a group of people who are perhaps otherwise unrelated, is what gives a symbol its power. Taken together, ideologies, ritual practice and the recognition of symbols contribute to the creation of a 'worldview' which will be understood here in accordance to Geertz's definition as a peoples' "picture of the way things in sheer actuality are, their concept of nature, of self, of society. It contains their most comprehensive ideas of order" (1973:127-128). Because ideology, rituals, and symbols are able to represent and enact an understanding of the world, the members of society who have access to these symbols and actions are among a group's most important and powerful.

In a Marxist analysis of state societies (which the majority of Mesoamerican pre-Columbian societies were), ideology is created and manipulated by those in power as a means of assuring their continued control over a larger group. For Bourdieu, state ideology is able to infiltrate the minds of individuals through the concentration of economic, cultural, informational and symbolic capital as well as through the control of physical force. Having reunited these numerous forms of capital, the state, which represents the dominant members of a given group, redistributes it through government institutions such as school and the military. By means of these channels, state-controlled cultural codes are subtly incorporated in individuals' *habitus*, becoming so natural that they are nearly impossible to question. In this way, cognitive structures created through an individual's formation within a state-run society are understood by those individuals not as a state-imposed manner of thinking but rather as the simple and inherent order of things (Bourdieu 1994:101-119).

A quick parenthesis concerning state leaders should be made before continuing. In the discussion above it is easy to understand the actions of state leaders purely in terms of maintaining the status quo. In this view, shrewd, level-headed governors simply go through the motions required of them in religious or culturally valued ceremonies in order to keep up their appearance in front of the populace and, as a result, are able to maintain their power and influence. Although this situation may accurately describe certain historical cases, it is difficult to imagine that, in many scenarios where rituals conducted by leaders were considered necessary for the well-being of the group – especially exceedingly painful ones such as the Mayan and Veracruz examples of self-perforating one's penis or running a spiked cord through one's tongue – that the leaders themselves did not also believe in the value and necessity of their actions.

So far, culture and ideology have been portrayed as belonging to a self-perpetuating, closed system whereby dominant regimes use and manipulate widely-recognized powerful symbols in order to maintain not only their social standing but also the perceived natural order around which society is structured. Individual actions reaffirm the established order, thus perpetuating it. This description is not, however, entirely accurate as cultural systems are neither static nor closed. As Anthony Giddens (1979:69-70) points out, human actions have unintended consequences which contribute to social change. Along with these unintended consequences, groups are formed by fluctuating internal social relationships and by the constant and unavoidable contact with their surroundings. The incorporation of a purported rational, indisputable, natural order of things in a society, which Jean and John Comaroff (1991) call *hegemony*, is never as

all-encompassing as it may appear at first glance. To begin with, hegemony is uneven amongst individuals and regions. Rather than an event, the Comaroffs view hegemony as a process in which order is always being constructed over pre-existing forms of thinking and acting so that the dominant party must consistently adjust itself in order to uphold its support by subsidiary groups. These regimes run the risk of losing power when individuals' lived experiences do not correlate with that which is represented by the dominant group's worldview. In such cases, previously unquestionable concepts become potential points of discussion and contention which can give rise to societal changes (1991:25-27). Subgroups and local agents are not always in agreement with "official" versions of history or reality and the possibility exists of there being different means of understanding the world (Hertzfeld 1997:10-11, Hodder and Hutson 2003:158-160). Herein lies the paradox of governance; groups in power use ideology, history, rituals and symbols to create an illusion of a constant, maintained stability while all the while redefining and altering their use of symbolic, economic, technological and cultural capital to address the needs and desires of subordinate groups.

These theories have had a far-reaching influence on the manner in which archaeological data is collected and interpreted. The constant interplay between social factions and the recognized role of individual agents as participating in the construction of culture has led recent archaeological theorists to take into consideration what Lynn Meskell calls "archaeology of the individual and identity". In this view, archaeological focus shifts away from studying overarching ideologies and worldviews and concentrates on agents themselves, aiming to gain insights on their individual perceptions, interactions and choices (Meskell 1999:5-7). While research conducted in this manner certainly provides valuable new insights into the multilayered reality of any social group, it is not always possible given the inherent limitations of the archaeological record. In the present study of Cantona, discussions of ideology, ritual, symbols and worldview will be that of the dominant group as the data available does not allow otherwise. Although it is understood that individual members of Cantona society would have experienced and interacted with the dominant ideology in unique ways, it will be assumed in the present study that the majority of social agents, ranging from rulers and priests to merchants, artisans and laborers shared and contributed to – at least from 150 B.C. to 550/600 A.D.,

during the use of the temple pyramids⁵ – a common Cantona-wide worldview in which sacred symbols were easily identified and ritual actions were recognized as essential for the maintenance of social and cosmic order.

3.3 Cultural Contacts: Why put Cantona in Context?

Cultural change and processes do not always stem from internal disjunctions between lived and represented experience. Domestic dynamics are coupled with external influences to create an active world whereby concepts and objects are forgotten, replaced, adapted and incorporated. The direct and indirect transmission of ideas and objects from one culture area to another is one of the largest influences in what Gordon F. Ekholm terms the "culture historical process". (G. Ekholm, 1971:55-56, Kroeber 1948:344-385).

Even when studying a specific cultural body, it is important to realize that no group exists within a void. A society and the members which make it up consistently interact amongst themselves, with the environment and with other groups. The past, either real or mythical, is built upon and contributes to the conceptualization of a "self" and an "other", key in the creation of individual and group identity. For Geertz (1974), culture is created by social entities attempting to explain the world in which they find themselves. He stresses that in order to understand a culture, one must attempt to do so from the actor's point of view. Taking this position will allow investigators to better explain the culture they are studying by placing it within the framework inside which it was constructed. In a study of Bronze Age Cyprus, Bernard Knapp (1988:135) remarks that archaeologists must take into consideration technological and socioeconomic developments but also the demographic situation and historical condition of peoples in

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⁵ Although unable to account for individual thoughts and actions, the archaeological record does indicate that a violent overthrow of Cantona's government occurred around 600/650 A.D., whereby theocratic institutions seem to have been replaced by a much more militarized form of rule. The causes that led up to this change are still unclear although the movement towards greater militarization – which was more or less contemporary with the decline of Teotihuacan – is well documented throughout the highlands for this period as evidenced by sites such as Xochicalco. Cantona's new governing format must have been at least partially successful in incorporating its ideology into individual's daily lives as following the *coup d'état* the city grew to reach its highest known population level. Moreover, no further evidence for later violence or drastic ruling change exists for the next four hundred years until Cantona's decline and abandonment around 1000 A.D.

order to better understand the religious ideologies of a prehistoric group. By adopting an approach that aims to understand the discoveries made in a more complete fashion, one must study not only the object in question but also the context in which it was found, creating, as Ian Hodder and Scott Hutson explain, a back-and-forth between the "part" – which comprises objects as well as actions – and the "whole" – meaning the historical context in which the "part" is formed" (Hodder and Hutson 2003:195).

In the Mesoamerican case, at the time of the Late Preclassic Period and the Classic Period, during which Cantona's temple pyramids were built and used, one cannot consider the "whole" as simply the town or the culture being studied directly. During this period, each region was linked to others by complex networks of local and long-distance exchange, the payment of tribute, the formation of alliances, and declarations of war. As on the roads of Medieval Europe, a wide array of people would have undoubtedly been traveling Mesoamerican routes: ambassadors, artisans, acrobats, religious figures, warriors, merchants, pilgrims, healers and beggars all shared the paths and throughways between towns and regions, traveling a little or very far, but always bringing news, objects, and ideas from elsewhere. Gordon Ekholm (1971:55) notes that the constant flow of people between groups and territories made it such that town inhabitants – or at least town leaders – would have had very precise knowledge of what was occurring outside of their borders. The daily life and interworkings of Cantona would have been influenced by the internal interaction of dominant entities and subgroups but would also have been marked by events external to the city. The study of Cantona's material culture, which in this case will focus especially on temple pyramid finds must not only concentrate on the discoveries themselves but also on the social dynamics that made their production possible and gave meaning to the material objects (Tilley 1989:188-189).

This concept is especially valuable in the study of Cantona because, as mentioned earlier, there are no written records known for the site and existing iconography is extremely limited. When present, the two mediums of text and image, besides providing invaluable information as to the who, when and where (and in some cases, why) of actions can also indicate dress worn, food and drink consumed, props used, etc, that may not be as easily gleaned from other sources. Despite the relative absence of these sources in Cantona, the city grew within a dynamic world of regional interaction whereby

warfare, tribute, alliances, trade and the movement of populations permitted the flow of objects and ideas to and from areas sometimes separated by vast distances. Many Mesoamerican sites contemporary to Cantona are rife with imagery and, in some cases, textual accounts, which shed light on political, social, and ritual events. In order to better understand the archaeological site of Cantona and the rituals and acts carried out there, it is necessary to know what was occurring regionally and interregionally at the time.

The second reason why the study of neighboring polities is so valuable when looking at Cantona is the existence of the so-called 'Mesoamerican Civilization'. This concept, defined by Paul Kirchhoff in 1943, is based on the idea that Mesoamerican cultures, despite their apparent differences, share a number of common characteristics. These commonalities, probably established in part by the constant inter-regional contact between areas, formed an underlying cultural current, a core 'Mesoamerican-ness', for which each Mesoamerican society was both a source and a tributary. Cantona, as a large city located on the edge of a major trade route between Highland Mexico and the Gulf Coast, would have contributed to, and been affected by, the flow of information between areas. As such, it is possible that a number of pan-Mesoamerican traits would have been present, at least to some degree, at Cantona, and that these would be observable in the archaeological record.

3.4 The Mesoamerican Civilization

In his original publication, Kirchhoff identifies 43 cultural traits he considered typically Mesoamerican. These include cultivating maguey and using it to make sweetener, the alcoholic drink *pulque* and paper, grinding and consuming corn, working obsidian, building stepped pyramids, covering walls with stucco, using a calendrical counting system whereby 13 numbers combine with 20 signs to create 260-day cycles, human sacrifice and bloodletting, hieroglyphic writing, the creation of accordion-style books, clear military classes, and the using of warfare to obtain prisoners of war (Matos Moctezuma 2001:100-101). Although later investigations led to the discarding of some of Kirchhoff's proposed points, the idea that the cultures which flourished from central Mexico through northern Honduras shared similar elements that set them apart from

other regions persists today and is held by most scholars. The presence of these common cultural traits and a partial mutually held worldview make it possible to understand Cantona through a comparative analysis of archaeological data from neighboring areas.

At the root of a common Mesoamerican identity is the unique way in which Mesoamerican groups conceived and lived their world. Other non-Mesoamerican peoples in both North and South America also ate corn and beans, wore cotton clothing and lived in stratified societies, and yet these are not classified as participants in the Mesoamerican culture. In discussing a few of the points that contribute to the creation of the Mesoamerican culture area, it is important to note that it is not these elements individually but the total sum of their presence that allows for the consideration of a Mesoamerican Civilization.

The organization of social groups among Mesoamerican cultures followed a common pattern where territories were organized around central cities. These acted as hubs of commerce but also as the most important civic and religious centres of the region. Regional centers exacted the payment of tribute from their dependent regions where goods were collected and redistributed, and surpluses were stored in the event of a food shortage or an emergency situation (Matos Moctezuma 2001:102-106). By the early Classic Period and even before, these central places were identified by the presence of monumental architecture, usually taking the form of stepped pyramids and superimposed platforms. These constructions marked the most important administrative and spiritual zone of the town and high levels of artisanship, sculptures, paintings, and fashioned objects were often on display here. Monumental art and architecture, which was rich in religious and sacred themes, publicly reinforced group ideology and worldview by associating it directly with the most powerful members of society. An elite social class, comprised of spiritual and religious leaders, led the city either by acting as a united council or as advisors to the ruler (Cowgill 2001, Duverger 1999:85-86). Mesoamerican leaders were recognized as being endowed with the ability to communicate with divinities or powerful spirits. Through a series of often painful or mind-altering rituals, as well as by the means of offerings and human sacrifice, leading individuals were able to enter a spiritual realm where interaction with the supernatural was made possible.

Within the Mesoamerican conception of their universe, both natural and manmade elements were infused with a multitude of powerful forces that could influence the course of human lives. The world which they created was polyvalent and multi-layered whereby an obsidian plaque could represent the night, a mirror, the divinity Tezcatlipoca, as well as fire due to its volcanic origins (Saunders 2001:222). Jade, besides being a rare and beautiful stone, was symbolic of water and fertility (Proskouriakoff 1974:3). Human beings and divinities were in constant interaction by means of ritual offerings and sacrifice. These will be discussed in more detail further on but it suffices to say for the moment that within the Mesoamerican worldview humans and divinities were as interreliant as life and death itself. Drawing on acute observations of the natural world, human survival in the Mesoamerican view was only possible through the death of individuals who, in giving up their last breath, fed into the uninterrupted cycle of birth, consumption and mortality according to which the world worked. Associated with the Mesoamerican worldview is the ritual 260-day calendar. This method of counting time is one of the very few examples of this kind known in the world to date, and knowledge and use of the calendar stretches from the Central Highlands to the mountainous Zapotec area and to the Maya region. The calendar's age and origins are unclear although recognizable examples of specific calendar day signs found in Monte Albán date back to 500 B.C. (Duverger 1999:23-38). The notion of cyclicality is also present in Mesoamerican counting systems as the 260-day ritual calendar articulates with a second calendar, the 365-day solar calendar to form 52 year periods. At the end of each 52 year time span, the calendars are set back to the beginning and ready to count a new period.

Continual renewing cycles were the basis for much of Mesoamerican ideology. Time moved in repeating cycles because the entire world order was cyclical. Plants, animals and human beings were held together by the inevitability of death, consumption and regeneration that permitted the growth of new life which then contributed back into the cycle. Aztec mythology, recorded in the colonial era texts such as the *Leyenda de los Soles* recounts how, at the beginning of time, gods had sacrificed themselves in order for the world to be created. In the *Leyenda de los Soles* the weak god Nanahuatl throws himself into a burning pyre in order to rise again as the sun. To move across the sky

however, he needs blood sacrifice to which all must comply if the world is to be maintained (Rose 2007:44-47).

The creation of the earth and of man was also only possible through the sacrifice of gods. In Aztec legend, to create man, the god Quetzalcoatl journeyed to the land of death to obtain the bones left by fish beings from a previous creation. Outwitting Mictlantecuhtli, the god of death in order to obtain them, he then ground the bones into dust. The gods mixed their own blood with this dust and from this paste were able to fashion modern people. A similar story existed in the Maya region although the meal used to create man was obtained from corn rather than ground bones.

The creation of the earth was also achieved through violent sacrifice. As the deities Quetzalcoatl and Tezcatlipoca went out to create the earth and people, their eyes set upon a great beast called Tlaltecutli whose monstrous appetite for human flesh was so great she was represented with gnashing teeth on her joints as well as with a giant maw. Quetzalcoatl and Tezcatlipoca agreed they must destroy Tlaltecutli if they were to see their creation through. Taking on the shape of two great serpents, they grabbed the monster and tore her apart, throwing her lower half to the sky while her upper portion became the earth. The other gods, upset by the violent dismembering of their fellow divinity, consoled Tlaltecutli by creating the bounty of the earth from her body. Her mouth became caves and rivers, her nose mountain peaks and her hair was fashioned into trees and flowers. Maize and all other plant life needed for human survival were derived directly from her body. Despite these changes, Tlaltecutli remained hungry for the flesh of people and ultimately, only bloodletting and sacrifice were able to keep her content and producing the products on which people depended (Taube 1993:37-39).

Although these myths are known from colonial-era accounts, they trace back to a much more distant past and iconographic evidence indicates that a worldview very similar to that articulated by indigenous groups at the times of the conquest was well established in the Classic Period (Taube 1993:44-45). In this view, supernatural forces had sacrificed themselves for the creation of the natural world as well as the human race. By their self-sacrifice and donation of blood, these powers had put in motion the cycle of life and death (and life as a result of death) that ordered the world. Human beings, who sustained themselves with the fruit of the earth and the effort of the divinities, must then

themselves feed into the cycle, nourishing the gods though bloodletting, sacrifice, and death. Only in this way was the cycle complete and the perpetuity of the world order maintained.

Another aspect of Mesoamerican life tied to both social organization and worldview was warfare. Warfare was practiced in Mesoamerica from the Preclassic through the Postclassic Period and at the time of the conquest, the Aztec empire was engaged in a series of guerras floridas, or flowery wars, against their Tlaxcalteca adversaries. Drawing from conquest and pre-conquest texts and references, it is known that Mesoamerican warfare had various objectives. One of these was to obtain tribute lands in which the victorious group could effectively demand a portion of the vanquished region's resources. This also served to expand the contacts and trade networks available to the winning party who would have thus reaped large economic benefits. In conjunction with the more practical and economic justifications of warfare, combat in Mesoamerica was also highly symbolic. Reilly and Garber believe that for the Preclassic Period Olmec, as well as for later Mesoamerican groups, war was often conceptualized as "supernatural battles waged between the spirit companions of opposing elites" (2003:1470). Warfare also allowed for the capture of prisoners of war. These individuals were not killed on the battlefield but rather were brought back to the winning side where they were humiliated, tortured and eventually sacrificed. These sacrifices were essential to assure the continued functioning of the universe and were offered to divinities in an attempt to insure rain, good harvests and success in chosen endeavors. It is not clear to what exact extent warfare figured among different Mesoamerica groups at different times and it is evident that there was much variation in its practice through space and time. Nevertheless, the pictorial representations of warriors and battles indicate warfare was a ubiquitous practice which was being very prominently featured. War-related scenes were incorporated into monumental architecture and imagery in the Early Preclassic Period and evidence of warfare-related sacrifice dates back as early as the Late Preclassic. The earliest representations of warfare were highly stylized and symbolic but the images depict similar messages of one-on-one combat in which the winning party clearly dominates its adversaries who are killed afterwards (Cowgill 2001:21, Reilly and Garber 2003:127, Sheets 2003:287-299).

Interaction with other polities was not only achieved through warfare and tribute but also through exchange. Economic exchange between groups served to stabilize access and availability to resources required to meet the needs of individual families. It also allowed for the accumulation of wealth and luxury objects within a society and contributed to the reglementation and management of foreign affairs (Hirth 2001:98-99). Kenneth G. Hirth (2001:104-113) proposes various models of economic exchange, all of which may have existed in Mesoamerica. In these models, exchange between zones containing different resources permits inhabitants of various regions to have access to a wide range of products. These exchanges may have been carried out according to a concentration-redistribution model by which resources are collected in a central place and then sent out to where they are needed, but many goods may have changed hands in marketplaces – public squares are known to have existed in Teotihuacán, Monte Albán, Cholula, Mayan cities, Tzintzuntzan and other cultural centers. At the time of Spanish arrival, full-time merchants, called pochtecas, traveled widely throughout the Mesoamerican area, moving exotic and local goods between regions. Although there is no direct archaeological evidence supporting the presence of such merchants before the Postclassic Period, the evidence of early long-distance trade leaves the possibility open. Exchange not only encompasses the flow of material goods but also includes the movement of individuals including ceremonial visits, marriages and alliances which contribute to the movement of ideas as well as objects.

It is within this dynamic environment that Cantona grew and thrived. As a large city with access to valuable resources and located along a well-established trade route, the development of Cantona would have naturally been influenced by the events going on beyond its borders. The Mesoamerican regions developing and growing during the Classic Period included the Central Mexican plateau, the valleys of Puebla-Tlaxcala, the Gulf Coast, Oaxaca, and the southern Maya region. In these areas common rituals and worldview were articulated in slightly different ways endowing each sphere with a

distinct cultural flavor. Located at the crosshairs of two key Mesoamerican regions – the Central Highlands and the Gulf Coast, the site would have undoubtedly incorporated a number of characteristics of the Mesoamerican civilization and its ideology. One such

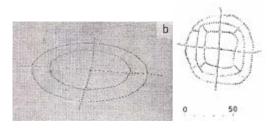


Figure 18. Pecked Cross Symbols from Uaxactun (left) and Teotihuacan (right). (From Aveni, Hartung, and Buckingham 1978:268).

example is what Aveni, Hartung, and Buckingham (1978) call "Pecked Cross Symbols", referring to a pattern of small circular pits incised in stone slabs (Figure 18). The pits are generally organized in a circular shape intersected by a cross and have been alternately interpreted as a

calendar, an orientation device or a ritual game similar to patolli played by the Aztecs. Examples of Pecked Cross Symbols occur at least 29 times in the Classic Period highland sites of Teotihuacán, Tepeapulco and Tlalancaleca and exist as far south as Uaxactun in Guatemala. Excavations at Cantona have also uncovered Pecked Cross Symbols in various locations throughout the site including walkways and temple pyramid summits. The presence of these widely distributed symbols in Cantona indicates that the city was very much a part of the Mesoamerican cultural sphere and incorporated commonly-held concepts into its worldview. Just as Bourdieu's individual habitus is created by the interplay of lived experience and exterior influences, so is cultural production the result of both internal and external histories, events and contacts. Born and raised within a structure, individuals, despite the infinite variety of actions available to them, are still limited by the socially constructed framework that organizes their thought process. The same might be said for cultures such as that of Cantona whereby the actions of citizens, rulers and subgroups combine to form Cantona society which in itself is organized in accordance to the shared 'common sense' of the Mesoamerican worldview.

This common organization and experience of the world, unique to Mesoamerica, stretches for a period of over 2,000 years (assuming, as many scholars do, that it was present among the Olmec civilization and continued to be a major force at the time of the conquest). During this long time span, certain aspects of the Mesoamerican worldview were emphasized to greater or lesser extents by different groups living in different

regions. This broad, pan-Mesoamerican worldview must now be concentrated to focus on how this worldview was articulated during the time period that Cantona's temple pyramids were in use. The following three chapters will focus on three regions of particular interest to Cantona; the city of Teotihuacán, the Puebla-Tlaxcala region and Gulf Coast. Each chapter will describe why the region in question was chosen for comparative analysis before focusing on two specific topics; the site or region's iconography and ideology and the human remains found in ritual settings. Although iconographic representations are limited in Cantona, such images are extremely important to consider when they do occur. These depictions were often made by people who had participated in and/or witnessed the ceremonies represented and the images carry their creator's message and views about the world. Since ideology plays an important role in maintaining social and political order, iconography and public monuments commissioned by state leaders are key in articulating the established worldview (Nagao 1989:83-85). The data will limit itself to the Late Preclassic and Classic Periods when the temple pyramids in Cantona were being constructed and used, and during which the majority of the human offerings were made. Through an understanding of the contemporary neighboring areas of Cantona, a more comprehensive analysis of the site's Temple Pyramid Group finds may be made which can contribute to more detailed knowledge of Classic Period Mesoamerica.

The Valley of Mexico: Teotihuacán

4.1 The Importance of Teotihuacán

At its peak, Teotihuacán was the biggest Classical Period city in Central Mexico (Figure 19). Located in the highland plateau, near Lake Texcoco where the Aztec capital of Tenochtitlan would later be founded, the city's influence extended east to the Gulf of Mexico, west towards Oaxaca and south through the Maya region. Hundreds of years after its abandonment, the city of Teotihuacán still continued to captivate minds as the Aztec rulers of Tenochtitlan considered the ancient ruins as sacred. (The name Teotihuacán was given to the city many years after its abandonment and means "place where the gods were created" in Náhuatl).

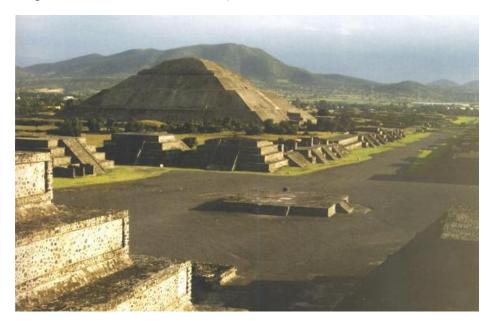


Figure 19. View of the Pyramid of the Sun and the Avenue of the Dead taken from the Pyramid of the Moon, Teotihuacan. (From Dehouve and Vié-Woher 2008:145).

Unlike Cantona, which was built on a dry, rocky lava flow, Teotihuacán was located on marshland near the junction of the San Juan and San Lorenzo rivers, to the northeast of Late Texcoco. The town was established around the year 1 A.D., right before Cantona began to enter its first period of substantial growth. From 1-150 A.D. during the Tzacualli Phase, Teotihuacán's largest monumental structures – the Pyramid of the Sun

and the Pyramid of the Moon – were founded. Over time, these buildings were modified and enlarged. In the hundred years following the Tzacualli phase, the Ciudadela complex, which includes the awe-inspiring Feathered Serpent Pyramid (also known as the Temple of Quetzalcoatl) grew to be the religious, cultural, political and economic center of Teotihuacán. A long causeway, known today as the Avenue of the Dead, ran along an north-south axis among the administrative and religious buildings of the city center, effectively dividing the city into four quadrants along with the east-west running San Juan river. The following centuries led to further growth of Teotihuacán which was entering the phase of its greatest extent around 450 A.D. During that time, the city grew to become the largest in Mesoamerica, home as many as 125,000 inhabitants. Due in part to its monumental size, Teotihuacán's influence stretched north and south of the city's limits, and was felt in the northern town of Ixtepete as well as far into the southern Maya area. There, Teotihuacán seemed to have maintained a particularly tight relationship with the city of Kaminaljuyú in modern-day southern Guatemala, which may have been conquered by the great northern city (Matos Moctezuma 1990:18-94).

Farmers, laborers, artisans, merchants, priests, military personnel and government rulers all shared the space delimited by Teotihuacán. One of the most interesting features of the city is the presence of foreign neighborhoods, the most well known being the Zapotec barrio, located in the western section of the city. These inhabitants were artisans and low-status manufacturers of pottery and obsidian tools. Another neighborhood, known as the Merchants' Quarters is believed to have housed a group of settlers from the Gulf Coast. Maya and Gulf Coast pottery was found in the Tlamimilolpa barrio and may indicate the presence of other non-Highland groups living in Teotihuacán (Matos Moctezuma 1990:120-121). The exchange goods Teotihuacán is best recognized by include censers, Pachuca obsidian and Thin Orange ware, a unique ceramic type. Thin Orange however, was actually manufactured in Puebla and may have been given to Teotihuacán as tribute. The control of select towns in regions such as Puebla, Tlaxcala, Hidalgo and Querétaro rather than the wide-spread dominance of large geographic areas, favored Teotihuacán's control of certain important trade routes and the expansion of the city's influence. Distant Maya region leaders seem to have adopted aspects of Teotihuacán style imagery as a means of legitimizing their power, and the site of Matacapan in Veracruz has been identified as a Teotihuacán enclave (Smith and Montiel 2001:258-266). Further Teotihuacán contacts with the Gulf Coast are evidenced by the presence of pyrite discs found at the Pyramid of the Sun decorated with Gulf Coast motifs and anthropomorphic figures in the form of jaguars and birds (Rattray 1997: 21). These animals, as will be discussed in the section below, played key roles in Teotihuacán representations.

4.2 Iconography and Ideology

Unlike the smooth stone walls of Cantona, Teotihuacán's constructions were decorated with elaborate sculptures, and brilliantly painted scenes covered the interior and exterior of homes and monuments. Stone and clay figurines also feature prominently in Teotihuacán assemblages and convey important information about the ritual and daily lives of the inhabitants of the great city. It appears from this wide variety of sources that the inhabitants of Teotihuacán worshiped a large pantheon of deities. One of the most frequently illustrated divinities is the goggle-eyed god of rain, called Tlaloc by the Aztecs, and known as the Storm God in much of the literature about Teotihuacán. This was a polyvalent deity depicted in a number of ways including a feathered serpent, a bird or a jaguar. Birds were also often associated with water-bearing rainclouds, and the jaguar's roar was likened to the clap of thunder announcing the arrival of a storm. In Teotihuacán imagery, these three animals are found in richly decorated contexts showing freely flowing water and lush plant life. The divinity Yacatecutli, a representation of the agricultural cycle found in Teotihuacán, has been identified by Laurette Sejourné (in Matos Moctezuma 1990) as being another manifestation of Tlaloc. Besides the close ties the Storm God had with agricultural fertility, the god was also linked to elite power, shown in marching procession with high status priests and ritual performers. Other deities belonging to the Teotihuacán pantheon include Huehueteotl, the Old God of Fire, depicted in sculptures as a seated, hunched old man with a wrinkled face. The crown of his head is often flattened or carved into a hollow bowl-like shape where a brazier was placed. Chalchiutlicue, a water goddess, was also present, as was the flayed god of spring Xipe Tótec, represented by clay heads showing priests who donned the skin of sacrificial

victims in celebration of this divinity (Matos Moctezuma 1990:125-127, Pasztory 1993:54-56).

Some of the most prolific and well-documented sources of not only Teotihuacán beliefs but also ritual actions come from mural paintings. These highly detailed images, often on a red background with bright yellow, red, blue, green, white and black painted scenes are among the most stunning examples of Mesoamerican iconography. The Tlalocan mural at Tepantitla is one of the best known of the Teotihuacán murals. The image is split in two panels that run the length of a closed four walled room (Figure 20). The bottom panel depicts worldly human activities while the top panel shows ritual and divine actions. In the bottom panel,

"[...] a figure shedding two tears and crowned with a branch is singing (symbolized by the scroll issuing from his mouth). Beneath him a spring (with a frog perched in the center?) disgorges a long stream, irrigating a series of cultivated fields and filling other fountains on its way [...] before rising into a kind of pyramid of waves in which some figures are seen swimming and playing" (Matos Moctezuma 1990:179)

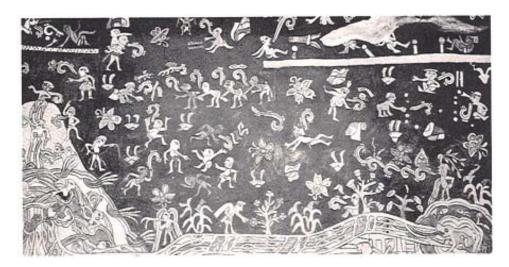


Figure 20. Tepantitla Mural, Bottom Panel. (Replica, Museo Nacional de Antropología, Mexico City). (From Matos Moctezuma 1990:178).

A number of other human figures wearing loin cloths pepper the scene, singing and interacting in a seemingly playful, carefree manner by their clearly abundant fields and crops. A second interpretation sees the scene depicting Tlalocan, the fertile paradise home of the god Tlaloc where people who died watery deaths were destined to go in the afterlife (Matos Moctezuma 1990:179).

The mural's upper panel (Figure 21) shows a scene whose interpretation is still contested. In the center, a figure wearing an extremely elaborate bird headdress, spreads its arms widely, spilling large drops of water from its hands. Above the figure rises a lush flowing tree surrounded by singing birds. Two attendants flank the figure, one on either side. They wear the same bird headdress as the central figure and are shown holding a pouch and scattering seeds. Matos Moctezuma (1990:179-181) describes the images as a celestial scene in which the god Tlaloc is the protagonist. Other experts in Teotihuacán art, however, such as Esther Pasztory and Janet Catherine Berlo interpret the central figure as the "Great Goddess", a female deity who wears the skirt and blouse typical of Mesoamerican women's dress. Representations of similarly clad divinities appear throughout Teotihuacán imagery, sometimes depicted as benign figures while shown elsewhere as fearsome claw-bearing destructive beings (Berlo 1992). Although the exact nature of the figures in the Tepantitla mural is still unclear, the images clearly show a



Figure 21. Tepantital Mural, Top Panel (Replica, Museo Nacional de Antropología, Mexico City). (Photograph: Isabelle Meehan).

ritual or divine scene whereby the pouring of water and sowing of seeds by elaborately depicted actors allow for agricultural abundance, and by association, expressions of carefree joy.

Other scenes related to rainfall and agricultural fertility are found elsewhere in Teotihuacán. In a room adjacent to the Tlalocan mural, a painting shows priests wearing elaborate headdresses in the shape of crocodile jaws parading one behind the other, each holding a pouch and scattering seeds. Flower-laden scrolls depicting speech or singing emanate from their mouths. A similar scene was found at Casa Barrios (Matos Moctezuma 1990:114-127, 179). In the Jaguar Patio stylized jaguars are shown wearing plumed headdresses and blowing into equally plumed conch shells from which drops of liquid fall. Similar conch trumpets were presumably used in rituals to call forth rain clouds and water. Their ocean origins naturally associate shells with water, and when cut in half the visible spirals bring to mind the swirling wind that prefaces a storm (Uriarte 2010:119).

Associated with the frequently depicted scenes and symbols of agricultural plenty, depictions of sacrifice and warfare are also present in a number of Teotihuacán representations and some cases show priests wielding sacrificial knives. The image of the human heart is ubiquitous in Teotihuacán art, appearing time and time again in a number of contexts, often shown recently extracted and dripping three large drops of blood. Hearts are represented alone or in clusters, sometimes associated with sacrificial knives or in front of an open-mawed animal. Unlike in other Mesoamerican sites, where the sacrificial victims are depicted leading up to the sacrificial act, no images of victims appear in Teotihuacán art. To whom the hearts belong seems unimportant as long as the hearts are present. Other depictions such as that of two coyotes sharing the ripped limbs of a sacrificed deer, whose open heart is clearly visible in the center of the image "represent sacrifice as part of the natural order of things" (Pasztory 1993:48).

Individuals, ornately decorated with images of butterflies, feathered serpents and other animals are also often shown holding shields and darts – the battle equipment of a Mesoamerican warrior. No clearly depicted battle scenes are known for Teotihuacán but

warfare imagery is prevalent and war is alluded to through a number of artistic double meanings and metaphors in Teotihuacán imagery (Headrick 2003).



Figure 22. Detail of Feathered Serpent Pyramid Facade with Feathered Serpent (right and left on alfarda) and Serpent with Scaly Headdress (center). Conch shells and an undulating feathered serpent decorate the talud. (Photograph: author).

Stone was another key medium Teotihuacán artists utilized for the production of objects and symbols. A stone disk depicting a skull with feathered rays found at the Sun Pyramid is thought to represent the setting sun. the Quetzalpapalotl Palace, access ramps and pillars depict ornate plumed serpents and birds carved in bas-relief (Matos

Moctezuma 1990:181). Perhaps, however, the most stunning example of Teotihuacán stonework can be seen at the Feathered Serpent Pyramid (Temple of Quetzalcoatl), whose construction began around 150 A.D. within the large complex known as the Ciudadela (Figure 22). Various interpretations have been offered by leading scholars about the identity of the two intertwining serpents that decorate the temple's facade. One of the serpents clearly represents the Feathered Serpent divinity, whose face emerges from the sculpted *talud-tablero* that encircle the structure and from the ramp that frames the central stairway. The conch shells and watery marine elements that accompany the scene further reinforce the idea of fertility that is associated with the serpent. In other iconographic contexts, the Feathered Serpent is associated with military images, sacrifice, and political authority, which may have also been aspects underlined by the temple pyramid's iconography. The exact identity of the second serpent is still unclear although according to the interpretation of Saburo Sugiyama, the creature wears a scaly headdress with curved fangs, related to Teotihuacán symbols of divine authority. The

headdress is that of the primordial crocodile on whose back the world rests. The creature references the underworld which was understood by Mesoamericans as a dark, watery realm (Sugiyama 1992, 2005). Karl Taube, who also interprets the scaly head to be a headdress, has given the animal the name War Serpent, citing similar crocodile-like headdresses found on Teotihuacán ceramics depicting mortuary warrior bundles as well as on Maya representations of warriors found on stelae and vases (2000:269-273). These two interpretations may not be as distinct as they first appear since warfare and the associated sacrifices and bloodshed were often conducted in homage to the gods and as offerings to ensure the perpetuity of life through death. Aside from its stunning exterior, which was hidden behind a plain covering of stone shortly after its construction, the human remains found associated with the Feathered Serpent Pyramid, as well as those known from the Pyramid of the Sun and the Pyramid of the Moon offer great insight onto

the ritual practices associated with temple pyramids at Teotihuacán.

Among the many examples of Teotihuacán iconography, one mural shows clear ritual treatment of human remains. In the Temple of Agriculture on the west side of the Avenue of the Dead in Teotihuacán, a scene,

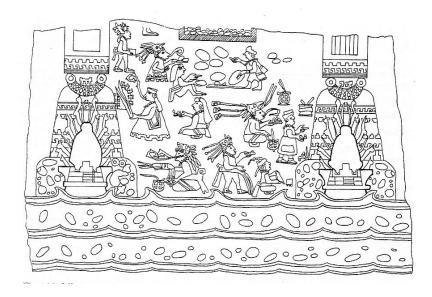


Figure 23. Mural from the Temple of Agriculture (Replica, detail. Museo Nacional de Antropología, Mexico City). (From Matos Moctezuma 1990:180).

probably painted in the Early Classic Period, around 300 A.D. shows two identical mortuary bundles being burnt in funeral pyres in front of mirrored temples (Figure 23). Various elaborately dressed individuals attend to the pyres, offering plates of food, numerous objects and tied bundles. In the back of the scene, a woman appears to be preparing large *tortillas* for the occasion. Below the temples, two levels of water carrying seeds flow past, perhaps depicting an irrigation canal or aqueduct. In Hasso von

Winning's (1987:43-46) interpretation of the image, the structures behind the burning bundles are colossal sculptures representing the same water and fertility divinity that appears on the upper panel of the Tlalocan mural at Tepantitla. The Temple of Agriculture scene, however, was painted with a different compositional style than that usually observed in Teotihuacán murals. In addition, the eleven figures shown on the mural do not appear to be natives of Teotihuacán. They have been identified by Beyer (in von Winning 1987:45) as originating from Veracruz based on their gestures, dress, and offerings which include quetzal feathers and balls of *hule* – the rubber obtained from certain Gulf Coast trees. Along with these foreign products, local objects such as seeds and tortillas are offered, and the tripod cylindrical vase that is used in the ritual are also typical of Teotihuacán pottery. If Beyer's identification is correct, the ritual actors in the scene are Veracruzanos who lived in Teotihuacán. They represent certain elements of their homeland in the nature of their dress, offerings, and ritual performance, but also incorporate aspects of their new city as they burn pyres in front of Teotihuacán deities.

Based on the analysis of the murals, sculptures and artistic representations found at Teotihuacán, a number of themes can be seen as repeated and interwoven. Water as the life-bearing liquid and source of agricultural fertility is consistently represented either directly in the form of water drops or indirectly in the shape of conch shells and the Storm God. Blood, the other essential life-liquid is equally well represented, frequently associated with extracted human hearts. Warfare, soldiers, and politico-ritual authority are also alluded to in the form of butterflies and ornate headdresses. Teotihuacán's pervasive contacts with other regions in Mesoamerica and the city's eclectic nature is exemplified in the Temple of Agriculture mural which depicts individuals from Veracruz engaged in a ceremony in which mortuary bundles are burnt on pyres in front of Teotihuacán deities. In the following section actual human remains found in temple pyramids will be discussed in order to better understand the ritual and ideological beliefs of Teotihuacán.

4.3 Human Burials Associated with Monuments and Temple Pyramids

Along with the rich iconographic imagery that has been discovered at the city of Teotihuacán, a large number of monument and temple pyramid finds help shed light on the rituals and beliefs of the inhabitants of this large city. Human remains, associated to the Terminal Preclassic/Early Classic Periods have been found in the Old City of Teotihuacán and are generally dated to around 1-150 A.D. These include 12 male individuals, bundled in seated, flexed positions found by Cook de Leonard in the substructure of a temple pyramid in Plaza 1 of Oztovahualco, Teotihuacán. are associated with Tlaloc-style *florero* found at Teotihuacán (Rattray 1997:19-21). Further excavations and salvage projects, conducted in the northern area of the city turned up evidence of dismemberment and possible defleshing. Investigations by Rodolfo Cid located four dismembered individuals two of whom had cut marks made by prismatic blades on their bones, by an altar north of the Zapotec Barrio. Eight dismembered adults placed in a pit were also found by Sergio Gómez in the early 1990s. Decapitation has been found in the form of four skulls associated with a circular structure north of the Ciudadela as well as in the areas of San Francisco Mazapa and the La Ventilla B compound. Although these examples lack details and context, they demonstrate the wide range of human body treatment present throughout Teotihuacán (Sugiyama 2000:201-202).

The largest and best known temple pyramids at Teotihuacán are the Pyramid of the Sun, the Pyramid of the Moon and the Feathered Serpent Pyramid. Excavations conducted by Batres in the early 1900s discovered an infant burial at each of the four corners of three lower pyramid platforms at the Pyramid of the Sun (Sugiyama 2005:203). Five offerings were located by archaeological investigations at the Pyramid of the Moon, whose seven periods of construction began around 50-100 A.D. and continued through 400 A.D., after which the building remained in use until the collapse of the city around 600 A.D. The first offering was associated with the 4th construction phase of the structure which was contemporary to the Feathered Serpent Pyramid. The offering contained a 45 year old adult male found facing west in a seated position with his arms tied behind his back. This position implies he may have been sacrificed and deposited in

the construction as an offering. The man was richly adorned, wearing earspools and jade and was accompanied by a number of grave goods including shells from both the Pacific and Atlantic coasts, greenstone anthropomorphic figures, obsidian blades, projectile points, and crooked knives which Cabrera and Sugiyama interpret as symbolizing the lightning bolts wielded by the Storm God. The knives were organized in a cross shape around pyrite discs, with each knife pointing to a cardinal direction. It is possible that the arrangement of knives and disks was meant to represent the cosmos (Cabrera and Sugiyama 2010:63-64).

The next deposit-offering (labelled by the excavators as Deposit-Offering 3), contained four human skeletons in extended and semi-flexed positions, with their hands locked behind their backs, feet bound and with fibres near their mouths suggesting they had been gagged. The individuals were between 13 and 44 years old and the objects associated with them differed in accordance with age, the oldest among them wearing a nose ornament and a shell necklace representing a human mandible. Eighteen decapitated animal heads, belonging to canines and felines were also discovered, along with two seated greenstone figurines, obsidian and shells. Isotopic evidence indicates that these individuals had not grown up in Teotihuacán and it is very likely they represent prisoners of war who were often depicted as having their arms bound behind their backs (Cabrera and Sugiyama 2010:64).

A very large offering, deposited around 250 A.D., at the center of the phase 4 construction, was located within a walled-in chamber. It contained twelve individuals, split into two groups. The first group consisted of two people seated at the center of the offering and wearing earspools and greenstone and shell ornaments. In sharp contrast, the ten remaining individuals were located piled one on top of each other with their hands tied behind their backs. These had been decapitated and the heads were not found associated with the burial. Over fifty animals, mostly canines, felines and birds of prey were located with the offerings along with a large quantity of knives, sculptures and figurines which are unique in Teotihuacán (Cabrera and Sugiyama 2010:66-67).

Eighteen decapitated skulls belonging to young adults were located in a trench associated with the sixth construction period. The skulls were covered with a thin layer of red pigment and capped by large stones. Also associated with the construction of the

sixth layer of the pyramid was Deposit-Offering 5. In a deep, walled chamber, three adult men, aged 50-70 years old, 40-50 years old and 40-45 years old were found seated in lotus position, hands pressed against their legs and facing west. In iconographic representations, especially that of the Maya area, this posture was associated with the elite and with divinities and it is possible these individuals were high-ranking Maya dignitaries. Large pectoral plaques, similar to those worn by Maya nobility, crocodile and shell remains and greenstone figures seated in a lotus position were also found, adding weight to the Maya dignitary identification. Across from each individual was an animal comapanion – an eagle and two pumas – which were creatures held in high esteem by Mesoamerican societies (Cabrera and Sugiyama 2010:65-66).

The offerings associated with the Pyramid of the Moon tie the building to sacrifice rituals and warfare, as well as indicate foreign contacts and the presence of elite status members in Teotihuacán. Such finds are not unique, however, as the discoveries made at the Feathered Serpent Pyramid, which will be briefly summarized below, also point to ritual actions in which authority and sacrifice were prominently displayed.

Saburo Sugiyama (2005:87-243) discusses in detail the archaeological finds at the Feathered Serpent Pyramid. Human remains have been located at the summit of the temple pyramid as well as along the top of the stepped platforms that make up the construction's body (Figure 24). On the south side of the pyramid, two multiple graves were found. The first (Grave 190) contained the remains of eighteen individuals buried in a long trench. All of the individuals were male with the majority of them found in a flexed or extremely flexed seated position, facing southwards, away from the pyramid. Ten of these individuals had their arms tied to their bodies, seven of which had them behind their backs. These positions indicate the individuals, most of whom fall between the 13-20 years old age range and the 25-30 years old range, were bound at the time of burial and the presence of arms tied behind the back – a common manner in which prisoners of war were represented in other areas – suggests they were sacrificed captives. These individuals were accompanied with grave goods consisting of shell maxilla pendants, projectile points and protective back disk armor, all of which associates them with the military and suggests they themselves may have been soldiers. Two other

burials were located on either end of Grave 190, containing bodies flexed positions with their arms tied behind their backs. These individuals were also 25-30 years old. Grave 17, located to the south of Grave 190 contained eight female individuals about which little is known. Burials along the north face of the pyramid were organized in an almost mirror image to those found on the south side. Here, Grave 204 contained eighteen men in flexed positions

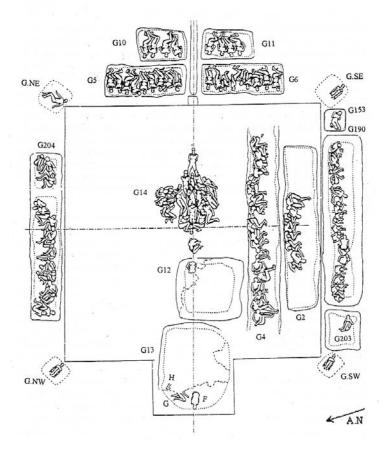


Figure 24. Position of bodies at the summit of the Feathered Serpent Pyramid. (From Sugiyama 2005:117).

with arms tied to their bodies or behind their backs. The majority of the bodies were facing north – away from the pyramid – and many were found lying on their right side. Two other graves, G.172 and G.1 were found on either end of G.204, also with flexed individuals. In front of G.204 was a trench containing eight female individuals, similar to those located in Grave 17.

On the east side of the temple pyramid (the side opposite the structure's main stairs), a mortuary pattern similar to the one found on the north and south sides was followed. Graves 5 and 6 together contained eighteen individuals, the majority were in flexed or semi-flexed positions and oriented upward towards the zenith, with their heads pointing west, towards the pyramid. These individuals, all male in age categories ranging from 13-42 years old, all had their arms tied behind their backs. Grave 10 and Grave 11, the east side equivalent of G.17 and G.16 of the south and north faces contained eight

female individuals in flexed or semi-flexed positions with hands tied behind their backs, also suggesting that these women were sacrificial victims. A single, flexed burial was also found at each of the four corners of the pyramid, three of which have their arms extended and tied to their bodies.

Six graves were located at the summit of the temple pyramid, all containing multiple individuals except for Graves 12 and 13. Grave 12, which may have contained an elite burial, predates the construction of the Feathered Serpent Pyramid and was looted in prehispanic times. Grave 13 is associated with one of the temple pyramid's substructures and contains a dismembered individual, where only the pelvis, spinal column and right ribs, located in anatomical position, were found. Graves 2 and 4, located along the south edge of the temple pyramid, follow the same pattern seen along the edges of the construction. In both of these instances, the preservation of Grave 2, along the very southern border of the top platform, contains eight female individuals, in age groups ranging from thirteen to thirty years old. These women were located in seated, south-facing positions, the majority with their arms tied behind their backs. Grave 4, closer to the summit center, contained 18 male individuals, predominantly between 35 and 42 years old. Like the others, they are also in seated or lateral flexed positions with arms tied behind their backs and facing away from the center. Also like the others, these individuals were buried with projectile points and back disks, making them a clearly identifiable military group. Graves 12 and 13, located near the center of the structure and in front of the stairs were looted and contained only four individuals between them.

Grave 14, located in the exact center of the Feathered Serpent Pyramid, stands out among the other finds. This grave contained twenty male individuals laying, for the majority, in extended position, facing the zenith with their heads pointing towards the east. These men were also older, predominantly between 35 and 42 years of age. The bodies were placed directly in the ground and were then covered with dirt and rocks, similar to the way burials were deposited in Cantona. Among these twenty individuals, none stands out as a potential central figure; rather the burial appears to contain a uniform group. Grave 13, due to its size and the position of the few individuals located who escaped the looting of the grave may have also contained a burial similar to that found in G.14. Since there does not appear to be a central figure in any of the graves

found at the Feathered Serpent Pyramid, the human remains discovered in this structure have been identified as a collective sacrificial burial. Bone analysis of all Feathered Serpent Pyramid burials show the individuals interred there were healthy and had enjoyed a balanced and complete diet, which suggests they were members of a well-fed elite class. The rich adornments and grave offerings also indicate that these individuals, at least at their burial, were of high status.

The mortuary plan at the Feathered Serpent Pyramid, evidenced by the large number of human dead and grave goods located within the construction, is believed by Sugiyama to have been dedicated to the deities featured on the pyramid's facade. The mass sacrifices conducted in association with the temple pyramid, however, were also a demonstration of authority. In order for the impressive sacrificial acts to have taken place, leaders had to have been able to organize not only the temple's construction but also the ritual execution and burial of at least 100 people within the structure (Sugiyama 2005).

In addition to the finds at Teotihuacán, other Central Mexican plateau sites indicate ritual decapitation and dismemberment were also practiced. In Preclassic Tlatilco, the burial of a young adult was located surrounded with disarticulated remains of other individuals including six children. An adult burial at Tlapacoya only had articulated femurs and tibias. Similar practices are known for the Classic Period such as in Coyoacán where a burial of three infants was found in which the torso and heads were in correct anatomical position but the arms and legs were disarticulated. In Cerritos, near the site of Teotenango, seventeen skulls were found surrounded by vertically placed forearms as well as detached feet (Ojeda Díaz 1989:52).

4.4 Valley of Mexico Summary

The iconographic data from Teotihuacán depicts scenes whereby elaborately dressed individuals and supernaturals perform rites dedicated to agricultural fertility where they are shown sowing seeds and conjuring rain for an abundant harvest. Warfare and human sacrifice is also alluded to in the representations of individuals wearing shield

and darts and the ubiquitous presence of bleeding human hearts. Mortuary bundles and funerary pyres were also created as shown in a syncretic scene with elements from both Veracruz and Teotihuacán at the Temple of Agriculture. The archaeological data associated with ritual complexes and temple pyramids complement the iconography as the majority of the burials at the main temple pyramids at Teotihuacán – namely those found at the Pyramid of the Moon and the Feathered Serpent Pyramid – represent the remains of sacrificial rituals⁶.

The deposits in the Pyramid of the Moon, the Pyramid of the Sun, the Feathered Serpent Pyramid, represent sacrificial rituals in which one or a number of individuals were interred during various construction phases of the structures. The meanings of these rituals are many. First, they are associated directly with the temple pyramids themselves - structures which are highly symbolic. Within much of the Mesoamerican area, temple pyramids were considered to be hallowed places and stood as a metaphor for sacred mountains where the celestial, earthly and otherworldly powers meet. The Postclassic association of mountains as receptacles of water and essential elements, called *altepetl* (water-mountain) in nahuatl, was also present in Teotihuacán as can be seen by the representation of the cave and mountain gushing water in the Tepantitla mural. A cave (either man-made or a natural one that was expanded), is located underneath the Pyramid of the Sun and canals running inside and through the pyramid would have conducted rainwater around the structure. It is possible these tunnels joined a natural spring that ran beneath the construction and further enhanced the notion of the structure as an altepetl – a fertile mountain containing water (Matos Moctezuma 2000:188-189). The pyramid constructions also mimic the naturally occurring mountainous landscape – the Pyramid of the Moon for example, is a scaled-down version of the Cerro Gordo located behind it. Placed near the banks of the San Juan River and covered in iconography that called to mind the watery underworld as well as storms and rainwater, the Feathered Serpent Pyramid and associated sunken plaza compound in front of it form an enclosed sacred

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⁶ Of all the burials located at the three main temple pyramids at Teotihuacan, only Deposit-Offering 5 of the Pyramid of the Moon, containing the three foreign dignitaries seems to have been an elite grave. Although it is not yet clear whether the individuals from this grave died naturally or were sacrificed, they clearly represent a mortuary pattern unlike that known for other deposits.

space. At the summit and sides of the temple pyramid, the mass sacrifices and outpouring of blood resulting from decapitations seem to have been part of offerings to the deities of water, wind and fertility that appear on the temple's exterior. Warfare is also represented in iconography at the Feathered Serpent Pyramid and the presence of warriors among the corpus of individuals sacrificed and buried at the temple pyramid summit suggests that battles also played an important part in the city's rituals.

The large scale sacrifices and human burials accompanied with status and exotic goods, as well as the mobilization of people required to build such large structures as Teotihuacán's main temple pyramids, point to the presence of a powerful elite authority in the city. As Sugiyama states "in Mesoamerica, militarism and human sacrifice were characteristically major institutions controlled by ruling groups" (2005:232). Powerful rulership is also implied by the presence of authority-wear, especially headdresses and nose pendants found in figurines, murals and on the Feathered Serpent Pyramid's facade. The distribution of artifacts, especially in the Feathered Serpent Pyramid's Grave 14, suggests that these were scattered during the ritual possibly in a gesture similar to that shown on another famous Teotihuacán image, the Tetitla mural. In the mural, a Great Goddess-like figure wearing an elaborate headdress, facial covering and earspools, spreads its arms wide to scatter precious objects such as shells and noseflares. In order to organize and enact the rites and ritual burials associated with the city's temple pyramids, a high degree of political and religious authority must have been wielded by Teotihuacán's governing class. Unlike what is observed in other Mesoamerican regions however, the names and personalities of the rulers and ritual actors themselves remain unknown. The impersonal and non-dynastic quality of the artistic representations at Teotihuacán unites the ritual actors in one homogeneous group which was, as McVicker puts it "unbound by time or space" (2007:77).

From the data available from Teotihuacán it can be concluded that in this large and influential city, rituals linked to temple pyramids and altars were elite-coordinated and sent a message of power and prestige to all who beheld the ceremonies as well as the awe-inspiring constructions they were conducted on. Burials involving large numbers of sacrificed individuals and ritual actions such as decapitation and dismemberment that would spill large amounts of blood were also practiced in neighboring areas such as

Tlapacoya, Coyoacán and Cerritos. In Teotihuacán, the ceremonies involved a large number of participants whose main actors were attired in intricate and imposing costumes possibly representing important deities. It is likely that similarly adorned ritual specialists participated and/or presided over decapitation and dismemberment ceremonies in the sites and towns nearby. At the root of these rituals lay the need for water to fill irrigation canals and allow for a harvest plentiful enough to support large population centers. Through rituals and human sacrifice, perhaps of individuals obtained through foreign warfare, the leaders of Teotihuacán and the Central Mexican plateau sought to ensure the presence of seeds, plants and rain, and by association, the agricultural foundation on which their society depended.

Puebla-Tlaxcala

5. 1 The Importance of the Puebla-Tlaxcala Area

The first and most important reason why this area is included in a discussion of the regions which influenced the growth of Cantona is that the city itself is located in the Puebla-Tlaxcala sphere. The natural geography of Cantona and its immediate surroundings is that of this highland region and differs greatly from the hotter and more humid Gulf Coast, which is just to the east of Cantona. In the Puebla-Tlaxcala area of the central highlands, trade routes from the central Gulf coast, Oaxaca, Guerrero and Morelos join and branch off, providing a crucial contribution to the cultural activity of the area (García Cook 1995:12). The Puebla-Tlaxcala region separated Cantona from Teotihuacán and served as a dynamic crossroad for many cultural influences whose impact was felt at Cantona.

The fertile volcanic earth in Puebla-Tlaxcala and generous streams fed by snow-capped volcanoes contributed to the area's rich soils and plentiful natural resources. The area has been continuously inhabited since the early Preclassic era and continues to be a verdant agricultural region. Around the year 100 B.C., at the very end of Tlaxcala's Tezoquipan cultural phase, and around the start of the construction and use of temple pyramids at Cantona, advances in hydraulics and construction had changed the shape of earlier Puebla-Tlaxcala cities and allowed for greater agricultural output. The priestly and artisan class had also increased in number and was supported by laborers and agricultural workers. Towns and cities grew during this time and plazas coupled with superimposed platform architecture became increasingly common. Red and blue stucco, balustrades and *talud-tablero* designs were also widespread throughout the Tlaxcala block (García Cook 1981:256-257).

An enormous eruption of the Popocatépetl volcano towards the later part of the first century A.D. caused the widespread destruction of numerous villages and towns along the mountain's flanks and the additional abandonment of many more population centers in the surrounding area. Spurred by the volcanic catastrophe, populations moved

away from established towns so that by the end of the Tezoquipan phase, much of the area's inhabitants had coalesced around sites such as Cholula, a city with growing interregional influence. Already inhabited before the wave of migration, Cholula became one of the largest Mesoamerican cities of the Classic Period though its size never reached that of Teotihuacán. The city became the regional center of the Puebla valley and held sway over large swaths of land to the north, east and south (García Cook 1995:14, Uruñela, Plunket and Robles 2009:140).

According to Angel García Cook, during the Tenanyecac phase (A.D. 100-650), population centers in the Puebla-Tlaxcala area fell into three general categories: those that were allies or satellites of Teotihuacán, those that were allies or satellites of Cholula, and those that managed to maintain a relative independence from the two larger centers. The inhabitants of the region that did not move to the larger and more important Cholula or Teotihuacán "gathered themselves into kingdoms or cacicazgos and fortified themselves to stay independent [of these two cities]" working to avoid becoming tributepaying satellite territories to the larger cities in the region (García Cook 1981: 262-263). Thus, in the wide area between Cantona, Cholula and Teotihuacán, there existed approximately only ten independent Tenanyecac cities, twenty-four independent towns or main population centers, and around sixty independent secondary centers. The remainder of the population lived in scattered hamlets and residential clusters. All of these population centers followed a similar organizational pattern in which each "belonged" to an independent cacicazgo and was associated with a larger civic and religious center. At the same time, population centers with ties to larger cities grew and new ones were established. In the section of the Teotihuacán Corridor running through Tlaxcala, twentyone cities and towns with ties to Teotihuacán existed and, in that area, the population increased greatly (García Cook 1981:268-269). Although Cantona appears to have maintained independence from the larger population centers of the Late Preclassic through Middle Classic Periods, information about these other towns and cities in the region serves to put together a more complete image of the world in which Cantona developed and evolved, and helps to interpret the ideological beliefs of the city.

5.2 Iconography and Ideology

5.2.1 Xochitécatl and the Late Preclassic Period

Located in the modern state of Tlaxcala, the site of Xochitécatl was an important Late Preclassic town, whose first period of use dates from 400 B.C. to 100 A.D. The site was abandoned in the Early and Middle Classic Period and was later reused and expanded in the Late Classic Period, from A.D. 650-900. The ceremonial precinct of the site, built during the first period of occupation, was constructed on the summit of the hill Cerro Xochitécatl and included three major buildings: the Building of the Serpent, the Pyramid of Flowers and the Building of the Spiral. This last construction predates the others and belongs to the Middle Preclassic (760-380 B.C.). A few stone elements located in Xochitécatl most likely belong to the Preclassic era and suggest the site was used as a religious center devoted to fertility. These works, depicting in turn a masturbating man, a skeletal woman with spread legs, and a Serpent Woman supernatural are similar to finds from other Late Preclassic Puebla-Tlaxcala sites such as Totimehuacan and Tlalancaleca. Two large water-holding vats were also associated with the ceremonial area of the site and one of them held four stone sculptures including a toad, a person with reptilian jaws and two anthropomorphic figurines (Serra Puche 2001:270-271). Along with these finds a large number of female figurines dating from the site's much later period of use, suggests the later rites conducted at Xochitécatl where especially linked to female fertility (Serra Puche 2001:256).

During the Late Preclassic through Middle Classic Periods, images of a Tlaloclike Storm God and as well as Huehueteotl, a divinity in the shape of an old man also appeared among assemblages from elsewhere in Puebla-Tlaxcala. Anthropomorphic and zoomorphic creatures became common and an image that García Cook (1981:259-260) interprets as a deity representing the dual ideas of life and death was found on a stela from the site of Tlalancaleca.

5.2.2 Cholula

The city of Cholula is the longest continually inhabited city in the Mesoamerican world with evidence of occupation dating from the Preclassic through the Postclassic and

continuing to the modern day. In the Classic Period Cholula's population grew rapidly and by 500 A.D. the citizenry numbered in the tens of thousands (Solanes Carraro 1995:26). Although the artistic styles of Cholula are strongly linked with those of Teotihuacán, the city was able to maintain its political, economic, and artistic independence from the larger metropolis, allowing for the development of its own iconographic traditions.

The main feature of Classic Period Cholula was the Great Pyramid, also known as Tlachihualtepetl or "man-made mountain". In its final stages, this building was much larger than the Pyramid of the Sun in Teotihuacán and was the largest pyramid in the world by volume. The temple pyramid was built in at least eight construction stages with a number of additional modifications, partial enlargements or the addition of smaller buildings. As it grew, the structure engulfed earlier constructions which were incorporated into its final mass (Uruñuela, Plunket and Robles 2009:145). Two



Figure 25. The Great Pyramid of Cholula with the modern-day Church of Our Lady of the Remedies at its summit. The Popocatépetl volcano is in the background. (Photograph: Luis Arturo García).

cosmological principles seem to have influenced the construction of the large temple pyramid – the first is its location above a natural spring associated with a carved out chamber, perhaps made to represent a cave. This is similar to the finds in Teotihuacán where the city's temple pyramids were also built in

association with caves and streams to represent an *altepetl* (water-mountain). The second characteristic is the construction's orientation 24-26° north of west. Oriented in this way, the pyramid's main facade would face the sunset on the summer solstice "with a temple on top of the pyramid illuminated by the last rays of light on the longest day of the year" (McCafferty 1996:5). The building may have also recalled the looming volcano in the background, whose perpetually smoking top dominates the western horizon (Figure 25).

The presence of monumental architecture at Cholula coincides with the arrival of migrants displaced by the earlier volcanic eruption and it is perhaps the sudden inflow of laborers and the creation of an ideological common ground between the old and new inhabitants of the city that spurred the construction of the Great Pyramid (Uruñuela, Plunket and Robles 2009:161-165). Throughout various stages of construction, the pyramid itself was not always symmetrical and smooth-sided as those in Teotihuacán appear to be. Rather the Great Pyramid often appeared as a large terraced mound complete with smaller plazas and connecting stairways. Many of these buildings were decorated with stucco and mural paintings and, as in Teotihuacán, these images offer glimpses into the ideology and ritual practice of the inhabitants of Cholula.

After the construction of the initial structure of Cholula's Great Pyramid, which occurred during the Late Preclassic/Early Classic Periods, the building was covered with a talud-tablero facade like those known from both the Preclassic Period in Puebla-Tlaxcala and the Classic Period in Teotihuacán. Like in these areas, the tableros were covered with stucco and were brightly painted. The stucco decorations of this early building, known as the Building of the Grasshoppers, were predominantly red, black and vellow in color, and depicted insect-like creatures identified by Marquina as butterflies with skeletal heads. Each depiction interlocks with its neighbors in a tessellated pattern that likely contoured the building (1970:39). Another interpretation, by Uruñuela, Plunket and Robles, sees the mural as representing "a series of skulls with crowned knots, separated by segmented diagonal elements that could represent caterpillar bodies" (2009:157). The skulls are painted using the same color palette but they are not identical - some are red while others are yellow, and their facial expressions vary. These differences suggest they may not have been painted by the same individual. Besides this well-preserved painting, there is another important iconographic feature associated with the Building of the Grasshoppers – although the base of the structure appears asymmetrical and random, the concentric organization of open space at the building's summit recalls the interior of a conch shell as well as a common swirling pattern called xicalcoliuhqui (Uruñuela, Plunket and Robles 2009:155-157). The organization of open space in this sacred pattern clearly links the structure with both wind and water.

Subsequent additions to the pyramid greater amplified its already imposing size and modified its outwards appearance. Built on top of the Building of the Grasshoppers, a construction stage containing nine platforms covered the previous structure. Stairs ran around the entire building, making it accessible from all sides. The steps also reinforced the cosmological aspects integrated into the pyramid construction: in the Mesoamerican worldview, the underworld had nine levels represented in the pyramid by the nine platforms and one section of the staircase on the north side had 52 steps which recalls the 52 years that it takes for the solar and ceremonial calendars to complete a cycle (Marquina 1970: 40-41, McCafferty 1996:6).

One of the well known murals from Cholula is the Drinkers (*Bebedores*) Mural (Figure 26). Located on both sides of the staircase of the Patio of the Altars, the Drinkers Mural measures 60m long and 2.5m in height. In brightly colored paint, it depicts around 100 anthropomorphic figures engaged in the ritual drinking of *pulque*, an



Figure 26. Drawing of Drinkers Mural (detail) showing a ritual drinker with attendant. (From McCafferty 1996:9).

alcoholic beverage made from the maguey plant. Many of the actors are shown wearing loincloths and elaborate headdresses while other, smaller individuals likely depict servants or attendants at the ceremony. Along with the drinkers, who make up the majority of the mural, zoomorphic figures are also depicted wearing feline and bird masks – the same animals which are often associated with warriors (Muller 1972:142). Among later highland populations, drinking ceremonies were associated with feasts dedicated to the divinities of alcohol and *pulque* as well as to Tlaloques or rain deities, and it is possible the Drinkers Mural depicts one such celebration (Vallin Magaña 1972:147-149).

The final building of the temple pyramid engulfed all the previous stages of construction and the exterior decorative work reinforced the use of the structure as both a political and religious edifice. Only a small section of the temple facade is preserved but

this portion shows that the temple pyramid's final stage had talud-tablero architecture where the tableros were decorated with interconnecting cut stone blocks, placed at an angle to each other and representing the straw fibers of a woven mat. Woven mat themes were often associated with nobility and political power among the Aztec and Mixtec and, in the Maya region, the mat house, or *popol nah*, was "a place of political council" (McCafferty 1996:6). In addition to representing authority by means of a woven mat, other powerful symbols were incorporated into the building's exterior surfaces. On the north side of the temple pyramid, other fresco paintings show diagonal lines painted in red, yellow, turquoise and black associated with starburst patterns which Acosta (1970a:47) interprets as a transversal cut of a conch shell. As in Teotihuacán, conch shells were likely associated with wind, water and the Feathered Serpent. The worship of a Feathered Serpent supernatural in Cantona is made evident in the Southeast Patio where a polychrome tablero decoration depicting a plumed serpent was found (Acosta 1970b:66). Associated with the final construction phases of the pyramid is the Patio of the Carved Skulls on the northeast platform of the pyramid. The patio contains a small pyramid-shaped tomb covered with plaster human skulls. The tomb covered the remains of a male and a female adults which date to the Late Classic/Early Postclassic Periods.

Found in conjunction with the temple pyramid was a number of independent stone monuments. These include stelae and altars decorated with volute carvings. Associated with the Patio of the Altars, a large carved stone head was found. The sculpture represents an individual with round eyes and a triangular nose, similar to those found on a similar head from San Juan Diuxi in the Mixteca area of Oaxaca. The facial characteristics present on the sculpture are representative of rain deities in various regions and the Cholula example likely shares this association (McCafferty 1996:10).

5.2.3 The Late Classic Period: Cacaxtla

The demographic changes that accompanied the decline of Teotihuacán allowed for previously small sites to grow and assert themselves. In Cantona these changes correspond to the shift from Cantona II to Cantona III which affected the use of Cantona's temple pyramids. A brief overview of the Late Classic Period site of Cacaxtla,

which is among the best studied sites for this time period in the Puebla-Tlaxcala area highlights the regional situation during the final stages of religious use of Cantona's temple pyramids.

The archaeological site of Cacaxtla, which incorporated and reused the previously mentioned Preclassic site of Xochitécatl, was occupied from the Preclassic through the Postclassic and began its strongest period of growth around 650 A.D., reaching its apogee in the 200 years that followed (Molina Feal 1995: 178-179). Architectural trends in the city indicate links with Teotihuacán, the central-northern Gulf Coast (El Tajín) as



Figure 27. Individual with conch shell. Building A, Cacaxtla. (From Foncerrada de Molina 1995a:189).

well as with southwestern Puebla and Oaxaca. Cacaxtla is perhaps best known for its stunning murals. The images, which have been stylistically dated to the Late Classic by Foncerrada de Molina (1995a:285-286) depict both ritual and battle scenes. Among the characters featured in the ritual scenes are the God of Rain (Tlaloc), the Feathered Serpent (Quetzalcoatl) and individuals adorned with jaguar and avian costumes. In the portico of Building II-1, richly adorned personages appear associated with supernatural elements such as a jaguar-spotted serpent or carrying a large conch shell from which a diminutive human figure emerges (Figure 27). These scenes all have an aquatic border, and other aquatic elements are frequently incorporated in the images. The expertly-drawn Cacaxtla murals combine a number of stylistic elements from different regions – the human figures, whose features, proportions and

fluid movements recall contemporary images known from the Maya area. They also wear elaborate headdresses and carry ceremonial bars resembling those of their Mayan counterparts, suggesting a relationship with the Maya region (Foncerrada de Molina 1995a:291-295). Cacaxtla painting, however, was also influenced by the populations in the Central Plateau and the use of borders appears to be carried over from Teotihuacán.

The murals also include symbolic elements and glyphs with both Maya and Highland features. This mixture of features in the murals suggests that after the decline of Teotihuacán, Cacaxtla evolved its own eclectic style, drawing from a number of sources to honor supernatural forces and commemorate historic events (Foncerrada de Molina 1995b, Kubler 1995). The exact identity of many of the individuals in the ritual scenes of the Cacaxtla murals is unknown but unlike the images from Teotihuacán, the Cacaxtla images appear to emphasize individual actors rather than communal timeless events. In Cacaxtla, glyphs associated with round discs, similar to those known in later codices, may represent alternately individuals' names, specific places, or dates. Like in Teotihuacán, however, watery elements, conch shells and feathered serpents are frequently repeated in Cacaxtla religious imagery. Allusions are also made to agricultural fertility: among the characters of the Building II-1's portico is an individual dressed in a jaguar costume. From the center of his stomach a young maize plant sprouts with leafy tendrils extending downwards towards the ground. The plant, emerging from the individual's stomach, draws a strong visual parallel to the intestines spilling from the

bodies of the vanquished warriors in the Battle Mural not far away.

In the Battle Mural, the difference in facial features between the two opposing sides suggests a clash between two ethnic groups (Figure 28). The differences in their uniforms and weaponry underline the

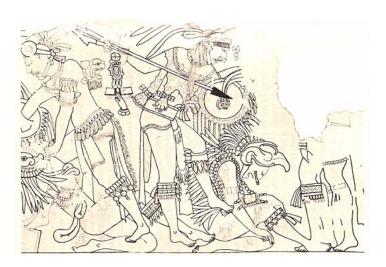


Figure 28. Battle Mural (detail), Cacaxtla. (From Foncerrada de Molina 1995a:201).

representation of two distinct camps: the victorious group is portrayed with recognizable highland characteristics while the vanquished party exhibits mayoid features. The battle is depicted in full action and the actors are endowed with a fluidity of motion rarely seen in Mesoamerican imagery. The warriors in the scene are adorned with precious and rare objects of jade and blue and green feathers (in the case of the mayoid individuals) and

jaguar pelts (in the case of the Highland group) suggesting all belong to an elite social class. Lombardo de Ruiz (1995:105-107) interprets the battle as a symbolic confrontation between two supernatural forces: individuals adorned with jade and quetzal plumes, associated with rain and the Feathered Serpent, die at the hand of men dressed as jaguars, an animal symbolically attached to the earth. It is only through this action, the "death" and absorption of the rain by the earth that the ground can become fertile.

Aside from the disembowelled vanquished warriors on the Battle Mural, human sacrifice by heart extraction as well as ritual bloodletting are also alluded to in Cacaxtla imagery. Glyphs representing bleeding human hearts similar to those drawn in Teotihuacán and in the Maya area are found repeatedly on the Battle Mural, sometimes appearing on top of soldiers' bleeding wounds. In the Maya region, a tie consisting of three knots was associated with the insignia of a bloodletting perforator divinity – this same three knot tie adorns the chest and wrists of Horn 3 Deer, one of the main warriors of the Battle Mural (Baird 1995:172-176). This element links the practice of ritual bloodletting to this elite figure who was clearly important enough to have his name explicitly stated in the mural.

Despite the relative lack of iconography data available from the Early and Middle Classic Period for Puebla-Tlaxcala, evidence from the Late Preclassic shows that fertility cults existed in sites such as Xochitécatl. During the Early and Middle Classic Periods, a Storm God similar to the one from Teotihuacán was also worshipped and the conch shell and Feathered Serpent, frequently attributed to wind and rain, were recognized as ritually powerful symbols. These elements continued to play a powerful role in the Late Classic Period in Cholula as well as in Cacaxtla where they appear on murals and facades evoking fertility but also authority.

5.3 Human Burials Associated with Monuments and Temple Pyramids

In Xochitécatl's Pyramid of the Flowers, thirty two burials were found, dating from every period of the site's occupation. Some of the individuals were adult women but the majority represented children and infants, two of which had been beheaded and had had their hands cut off (Serra Puche 2001:286-270). Another Xochitécatl burial reported by B. Spranz in 1973 contained an individual with dental mutilations and incrustations similar to those commonly found in the Maya area, opening the possibility that the burial was of a person originating from the south (López, Lagunas and Serrano 2002:93).

The majority of human remains that have been found at Cholula date from the Postclassic Period and are therefore not contemporary with those located at Cantona's Temple Pyramid Groups. Among the few known burials associated with previous time periods is the body of an adult male dating from the Late Preclassic Period located in the Southeast Plaza. The individual is approximately between 18-20 years old with intentional cranial deformation and dental mutilation whereby his upper incisors had turquoise incrustations and the upper canines, lower laterals and lower canines had incrustations of jadeite. This pattern is also well documented in the Maya area and López, Lagunas and Serrano suggest the individual may have been a Maya dignitary. In another case, the burnt bones of a child were located inside an altar. In general, the human burials in Cholula dating from the Classic Period were either in extended dorsal position or flexed and do not seem to have followed a specific orientation pattern. (López, Lagunas and Serrano, 1970, 2002:91-93).

A number of human burials were located at Cacaxtla and indicate a wide range of mortuary ritual acts. In the patio in front of the Battle Mural, twelve individuals were buried in front of the mural, including nine children whose bones showed traces of fire. Elsewhere in the patio, twelve other children were located, eight of whom were represented only by skulls and long bones. Eighteen other children were discovered in the rooms and porticos of El Palacio while forty individuals with evidence of mutilation were located in the Patio of the Rhombuses. Elsewhere, in the Patio of the Altars, more than 52 individuals were located. Among them were 41 primary burials of children, 11 secondary burials of children and a large number of isolated bones and fragments, predominately skull fragments and long bones. All of these finds had been exposed to fire and were found burnt. Further excavations of the passageway between Complex 2

and El Palacio, as well as in the Plaza Superior, located an additional 67 individuals, the majority of which were children, many of whom had been dismembered. Other bodies were accompanied by canines. Associated with all the burials mentioned above, obsidian blades and bone needles were abundant while scrapers, beads, pendants and zoomorphic figures were also found in high numbers. Among the discoveries were two tombs, one located in the Patio of the Altars and the other in the Sunken Patio. The Patio of the Altars tomb contained the remains of an individual in seated position surrounded by six skulls. The other tomb contained the remains of two dismembered children over six years old (Delgadillo Torres and Santana Sandoval 1995:56-68). On the side of Cerro de Cacaxtla, on top of which the majority of the site's structures are located, other human burials were discovered. One of them contained four skulls belonging to two women and two men accompanied by a tibia and a stone sculpture with Storm God (Tlaloc) attributes. Another nearby burial contained the body of an adult male found in a flexed position with a broken *metate* in the place of his feet. Associated with the body was the skull of an adult woman (Jiménez Ovando 1995:123-130).

The human remains of children linked directly to the Cerro de Cacaxtla structures are interpreted by Delgadillo Torres and Santana Sandoval (1995:69) as being offerings to Tlaloc since many post-conquest references report the indigenous practice of sacrificing children to the God of Rain. Besides being gifts to divinities, Delgadillo Torres and Santana Sandoval see the sacrificed individuals as dedicatory offerings linked to the completion of the constructions. The burials reported by Jiménez Ovando (1995:130) have also been interpreted as associated with the water divinity. Dismemberment and decapitation – evident in the finds, are often linked to the Rain God and the presence of an effigy representing Tlaloc supports the association of the sacrifices with rain and water.

5.4 Puebla-Tlaxcala Summary

At the beginning of the first century A.D., the Puebla-Tlaxcala area underwent dramatic demographic changes due in large part to the violent eruption of the Popocatépetl volcano. Migrations fueled the growth and expansion of cities such as

Teotihuacán in the central Mexican plateau and Cholula in the valley of Puebla while causing population shifts in the areas in between. The inhabitants of Puebla-Tlaxcala who were not directly allied or associated with one of the dominant cities, clustered in smaller defensive towns in order to maintain their independence. In Cholula, which benefited from a booming population, leaders were able to mobilize laborers to build imposing monumental architecture such as the Great Pyramid. This building reflected the Mesoamerican conception of altepetl seen in Teotihuacán, served important astronomical functions, and played an ideological role as its construction recalled the surrounding landscape, especially the tall smoking volcano responsible for the recent devastating catastrophe. In each of its stages of construction, the Great Pyramid was decorated with images of elite ritual actions (as in the Drinkers mural), of elements associated with divinities and agricultural fertility (conch shells and the Feathered Serpent) as well as authority (in the stone tablero with a mat design). In their time, each of these images served to reinforce the association between natural forces - whether in the form of springs, rainwater, mountains or volcanoes – and a dominant class which was able to evoke these energies.

In the rich images discovered at the Late Classic site of Cacaxtla, a similar iconographic corpus was found. The brilliantly colored and expertly created murals depicted a changing time when, after the decline of Teotihuacán, new sites and rulers asserted their power and influence by creating new styles of artistic representation influenced by a number of regions including the more southern Maya area. The core messages of the images, however, remained similar to those that existed in earlier times. Feathered Serpents, conch shells, warfare, bloodletting and ritual sacrifices were constantly alluded to. These elements were consistently associated with divinities as well as with elite characters who appropriated them in public iconographic representations. Through the manipulation and interaction of these sacred elements, rainfall and agricultural fertility were made possible.

The imagery from these sites was accompanied by discovery of ritual burial and sacrifice. Two possible Maya dignitaries, one from Xochitécatl and another from Cholula indicate, as in Teotihuacán, the presence of a wide network of interregional contacts and interactions between the *Altiplano* and outside areas. In the Late Preclassic Xochitécatl,

children were buried in association with the constructed temples. The large number of human remains discovered in the ceremonial precinct at Cacaxtla points to a series of rituals involving human sacrifice. Most of the discovered individuals were children, the majority of whom were dismembered, decapitated or burnt. The sacrifice of children was often associated with rites dedicated to the God of Rain and these rituals may have also been part of dedicatory rites conducted after the completion of the structures. The large presence of prismatic blades and perforators also suggests ritual bloodletting may have played a role in child sacrifice rituals.

The data from Puebla-Tlaxcala show that temple pyramids and ceremonial constructions were decorated with imagery representing important divinities and elements associated with rainfall, fertility and elite authority. In certain cases the ideology called to mind by the images was reinforced by ritual actions that took place on or near the ceremonial structures. These actions include ritual drinking as well as the carrying out of human sacrifice whereby individuals were killed and dismembered or burnt. As in the case of the Feathered Serpent Pyramid of Teotihuacán where over one hundred individuals were sacrificed, the large number of burials located both at Xochitécatl and Cacaxtla indicates the existence of a mortuary program which sanctioned the ritual killing and offering of numerous victims. As in Teotihuacán, these offerings appear to be associated with divinities that had the power to control natural elements, namely those related to water and agricultural fertility.

The Gulf Coast Region

6.1 The Importance of the Gulf Coast

In the history of the development of Mesoamerica, perhaps the best known Gulf Coast culture is the Olmec, which thrived 1000 years B.C. This group, sometimes considered the Mesoamerican "mother culture", is believed by many to be the founding source from which much of Mesoamerica's common ideology and worldview sprung. Although the mother culture theory is being called into question (there were, after all, a number of other groups that were contemporary to the Olmec who also contributed to the formation of the Mesoamerican cultural sphere) there is no doubt that the Olmec united a large geographic area whose monumental constructions, complex iconographic representations and glyphic writing system are among the earliest known in Mesoamerica. By the time period of interest to this paper – late Cantona I and Cantona II - many of the large Olmec cities such as La Venta and San Lorenzo had disappeared and new cities dotted the region. This era, sometimes called Epi-Olmec, is known through a growing corpus of archaeological data, especially new excavations of previously littleknown sites as well as the recent partial decipherment of Classic Period Gulf Coast glyphic writing. It is these Late Preclassic and Classic Period sites that will be focused on here.

During the Late Preclassic and Classic Period in the central Veracruz Coaxtla region, the architectural layout of sites shifted from the one previously known. Instead of consisting of short pyramids and large platforms arranged in groups, the layout of the new cities conformed to what Daneels (2008:200-210) calls the Standard Plan. In this architectural format, a pyramid stood at the north end of a plaza which was delimited on the east and west by long platform walls and closed off by a ballcourt to the south. Generally, this complex was also associated with a secondary plaza, one or more reservoirs, and a large platform. While the main plaza and reservoirs may have been used for ritual function, the secondary plaza might have had a more administrative purpose. The Standard Plan layout occurs elsewhere in Veracruz including in the Mixtequilla and

in the south-central Gulf Coast, although the complexes may be aligned on an east-west axis instead of running north-south. The emergence of this architectural style is of interest as it follows a pattern similar to that of the Cantona Ballcourt Complexes. Two differences exist, however, between the CBC and the Standard Plan architectural styles; in the CBC constructions, the plazas are enclosed by high walls and platforms, creating a "sunken" effect, and CBC ballcourts are located on lower ground than the main plaza or pyramid instead of being even with the temple pyramid as in the Standard Plan (Daneels 2008:212). Despite these differences, the utilization and repetition of a common pyramid-plaza-ballcourt layout in the civic and ceremonial constructions of these distant regions indicate that this pattern was widely recognized by numerous groups as a good or necessary way to organize and structure space. The organization of these constructions must have maximized the effect of the ceremonies that were conducted within them and it is possible to imagine that the rituals enacted in the CBCs and in Standard Plan layouts would have had points in common. The Gulf Coast region is especially interesting for the study of Cantona as the majority of Cantona's long-distance trade was conducted with this region. Pottery styles and shells from the Gulf have been found in Cantona and Zaragoza-Oyameles obsidian, the source exploited by Cantona, was also the main obsidian used in a number of central Gulf Coast sites such as Palo Errado. As it is clear that objects moved in large quantities between the two regions, certain ideologies and ritual practices were also likely to have been shared.

6.2 Iconography and Ideology

6.2.1 Late Preclassic/Classic Period Iconography with Text

Among the most telling artifacts dating from the Late Preclassic and Classic Periods on the Gulf Coast are those examples which include writing. New analyses of these scattered texts provide insight not only on Veracruz worldview and ritual practice but also help understand the cultural contacts maintained by some Veracruz cities. Three of the longest known Classic Period texts are those from the Tres Zapotes Stela C, the Tuxtla Statuette, and the La Mojarra Stela I. The Tres Zapotes Stela C is a carved stone slab containing both images and glyphs. On one side of the stela the profile of a man is

shown sitting cross-legged on top of a divinity's anthropomorphic head, which may in fact be a carved throne. The individual's position atop the divinity may indicate the supernatural's support of the figure who is possibly a ruling member of the elite (Wyllie 2008:230). On the back of the stela, inscriptions and a long count date – September 3, 32 B.C. – most likely mark a key event in the life of the individual depicted on the reverse side. Judging by the individual's body position, elaborate dress and his location on a throne, it is believed he represents a ruler. In context therefore, towards the end of Cantona I, as the city was on its way to reaching its first cultural apogee, elite figures in the nearby Gulf Coast were representing themselves as having the divine support of

supernatural entities. By about 200/250 A.D., Tres Zapotes was on the decline and a new cultural center to the north, located at Cerro de las Mesas was beginning to grow (Diehl 2004). In the following periods, similar representation of deity-ordained rulership would continue and carry through to sites such as El Tajín.

The Tuxtla Statuette is a 15 cm. tall greenstone figurine depicting a bald-headed priest wearing round earspools, a winged cape and bird-bill (possibly duck?) mask (Figure 29). Incised in the figure are 75 glyphs, including a long-count date of 162 A.D. Dating to around the same time, La Mojarra Stela 1

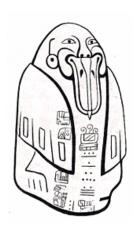


Figure 29. The Tuxtla Statuette. (From Diehl 2004:184).

is a 234 cm. tall stone with a deeply incised human figure which stands perpendicular to the viewer and wears an extremely detailed and elaborate costume. Accompanying the image are over 100 lightly incised glyphs, in writing unlike that known from other contemporary areas such as the Maya region. Two long count dates on the object indicate May 21st, 143 A.D. and July 13th, 157 A.D. The text has been identified as belonging to the Mixe-Zoquean family, similar to the language thought to be used by the Olmec and related to Mayan. Justeson and Kaufmann (2008) have begun to decipher some of the above-mentioned texts as well as these found on a potsherd from the site of Chiapa de Corzo, on two stone masks – one rendered in Teotihuacán style – and on three stelae (5, 6 and 8) from Cerro de las Mesas. The two masks have long count dates of 486 A.D., 528 A.D., and 533 A.D. Based on their readings, Justeson and Kaufman are able to

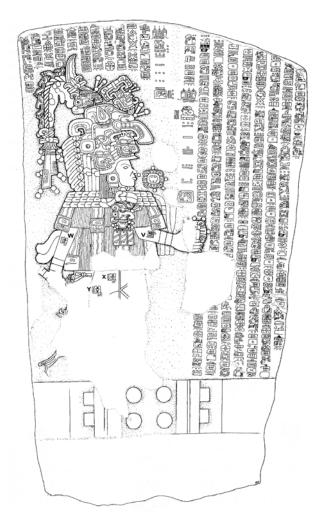


Figure 30. La Mojarra Stela 1. (Drawing: George Stuart, from Justeson and Kaufman 2008:161).

discern two types of Epi-Olmec text: historical narratives and ritual inscriptions. The La Mojarra Stela 1 (Figure 30) translation provided by these authors reads "His 'macaw power', his 'eccentric flint', and his pectoral stone memento brandished" in which the logogrammatic signs for 'macaw power' and 'eccentric flint' also resemble the objects the associated individual holds in his hands. The 'pectoral stone memento' on the individual's chest is adorned with a sculpted image of a divinity associated with rulers' ritual bloodletting ceremonies. This indicates that ritual bloodletting by rulers was practiced by the elite members of La Mojarra nobility. It

also indicates that the event in which bloodletting was performed was important enough to be commemorated on a large and well sculpted monument. The texts and accompanying stone engravings shed important light onto both the political and ritual spheres of the Epi-Olmec world. In the case of the Cerro de las Mesas stelae 5, 6, and 8, Justeson and Kaufman (2008:181) identify the single individual depicted on each one as a different ruler of the site. These politically important figures are shown in ritual contexts, wearing elaborate dress and acting out ceremonies described on their respective stelae, which often also involve bloodletting. As on Tres Zapotes Stela C, the later La Mojarra and Cerro de las Mesas images depict their principal characters as supported by supernatural powers – they stand on or are surrounded by the predatory maw of the earth monster – an anthropomorphized cave entrance that served as a portal between the light-

infused surface (and human) world and the dark, mysterious but powerful supernatural world below (Willey 2008:229).

Apart from indicating the presence of these key figures, textual and iconographic sources demonstrate the presence of foreign influences in the Gulf Coast as well as Gulf Coast importance in other areas. Stela 15 at Cerro de las Mesas depicts a figure wearing goggles and a buccal mask closely identified with the Storm God of Teotihuacán. The presence of Storm God iconography is known in the Gulf Coast as well as in the Maya region. Despite its foreign source, the deity appears to have featured in a number of local Epi-Olmec practices. The presence of Epi-Olmec text on a Teotihuacán-style stone mask also indicates the links between the Gulf Coast polities and the people of the Highlands (Justeson and Kaufman 2008:185-189). This discovery further fuels the concepts of diffusion put forth earlier in this thesis whereby the movement of people and goods between regions in Mesoamerica contributed to the flow of religious images and concepts. Cross-regional contacts and influences are further made evident in the Chapultepec Stone, a carved stone slab believed to have originated from the village of San Miguel Chapultepec, south of Mexico City. The stone depicts an individual whose pose and dress is almost identical to that observed on the Cerro de las Mesas stela 5, and it is possible these may represent the same person. More telling than the Chapultepec Stone's proposed place of origin however, are the glyphs that accompany the clearly coastal individual. The text written besides the image is not in the Gulf coast Zoquean language used on the other Veracruz sources and contains neither dates nor numerals. A number of possibilities exist that attempt to explain this inconsistency, including the idea that the stone was from another cultural group under Epi-Olmec control if not from Cerro de las Mesas itself. The monument could indicate the presence of an Epi-Olmec enclave in the highlands or the presence of Epi-Olmec elite individuals within a foreign territory, or, finally, that the combination of cultural elements included on the stone is the product of a shift from the Epi-Olmec tradition in favor of a new style sometime between 500 and 600 A.D. (Justeson and Kaufman 2008:186-187). The importance of interregional contact is also highlighted in Cerro de las Mesas Stela 4 which depicts a seated individual wearing a tall, wide-brimmed hat and holding a circular fan, accessories that are associated with long-distance merchants (Willey 2008:232). The presence of these

elements in a carved stela indicates their high social value and a possible position of influence and power associated with trade and travel to outside regions. These examples also clearly illustrate the permeability that existed between regional and cultural spheres in the Mesoamerican world and the many possible ways in which this cultural flow was manifested.

6.2.2. Ballgame Iconography and Sacrifice

The majority of the iconography known for the Classic Veracruz culture is carved in stone. Stone stelae, ballgame equipment and bas-relief decorations point to a corpus of ritual practices in which high status individuals travel between the natural and supernatural worlds, perform acts of bloodletting and human sacrifice, and interact with divinities. A large amount of Classic Period Veracruz iconography depicts ritual practices in relation to the ballgame and some of the most important sources of information are portable stone elements and bas-relief sculptures in which the game is shown. Ballgame iconography (considered in this case as scenes set in a ballcourt, depictions of ballplayers, and images on carved stone ballplaying equipment), is particularly important because the ballgame's ritual value in Veracruz was likely shared by the inhabitants of Cantona where 25 ballcourts were built, many within architectural ballcourt complexes similar to those found in the Gulf Coast. Although there existed many versions of the Mesoamerican ballgame (as can be observed in the differences in ballgame attire worn by players from the Gulf Coast as compared to the Maya region) and the wide range of sizes and shapes of the courts within Cantona suggesting different variations of the game were played even within the same site, the ballgame in all its forms is believed to have been heavily laden with symbolism. Ballgame iconography, where it is found, suggests the sport was closely tied to ritual travel between the humaninhabited world and the supernatural realm. A common subject symbolized in the game is the motion of the sun, climbing through the sky during the day and passing through the underworld at night. The constant course of motion between forces such as night/day and life/death is highlighted by the prominent place of human sacrifice in ballgame iconography. The death of a ballgame player at the end of the match, considered by some scholars to represent the death of the sun or moon at the end if its daily or nightly cycle,

is part of the ritual processes in which human sacrifice assures agricultural fertility, the prosperity of the society, and the maintenance of social order (Gillespie 1991:318-321, Uriarte 2000:30). Human sacrifice conducted by human and anthropomorphized beings is prominently depicted in ballgame iconography and on ballgame equipment.

Hachas, palmas and yokes are three elements of ballgame equipment from which a great deal can be understood about Gulf Coast ideology. Although probably made of cotton, wood, or other perishable materials when used in play, intricately decorated stone facsimiles of these objects have been found which detail many of the beliefs concerning the ritual aspect of the ballgame and provide a better understanding of Gulf Coast worldview. Images on palmas such as the Hammond Palma depict a winged human-vampire bat creature, descending onto a sacrificed victim. At the Late Classic Period site of El Tajín, vampire bat characters also appear in sacrifice and bloodletting scenes. The fact that these animals live in caves – unearthly regions believed to be the dwelling place of the gods – coupled with their attraction to, and consumption of, blood conferred onto them an association with divinities and the supernatural (Kampen 1978:116-119). Ritual sacrifice is also shown on a Late Classic palma from Coatepec in southern Veracruz depicting a man wearing a plumed headdress. In one hand he holds a sacrificial blade and grasps a severed head by the hair in the other hand. Another palma from Veracruz shows

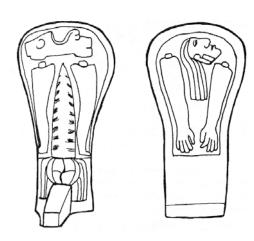


Figure 31. Veracruz *Palma* showing dismembered body. (From Gillespie 1991:336).

ritual dismemberment (Figure 31) – on one side a decapitated head and severed arms are shown while on the other side a pelvis and detached legs are depicted (Gillespie 1991:234-236). The association of ritual decapitation and dismemberment with divinity communication and agricultural fertility is articulated through the yoke, another ballgame equipment piece. The yoke is a large belt worn around the waist to protect the player's hips which are used to hit the ball. Stone examples of these have been

recovered, carved with images of anthropomorphic figures. Jaguars, powerful night-time predators often associated with the elite, were commonly represented while the toad, a

creature that lives in both land and water and was often associated with the Earth Monster, was also frequently portrayed on yoke iconography. Toads, which regularly shed their skin, were also conceptually linked with fertility and regeneration (Bradley 1997:65). The context in with the majority of the yokes have been found is unknown but it is likely that these ornate elements would have been associated with individuals of high social standing. If the stone yokes were ever worn, it was probably in a ritual context as their weight and size would have made them unusable as actual equipment for playing the ballgame. Jaguar imagery would have reinforced the individual's social status while the wearer of a stone yoke depicting a toad or earth monster, would have very literally placed himself at the frontier between two worlds, standing with his lower body entering the earthen netherworld while his upper body was still in the human world (Bradley 1997: 33-39, S. Ekholm 1991: 338-339, Wilkerson 1991: 45-71). Accoutred in this way, the role of elite members as communicators and travelers between the two mutually dependent realms would have been further enhanced.

6.2.3.The Late Classic Period: El Tajín

Along with inferences made by analyzing ballgame equipment, images of elite individuals engaged in ritual activity involving deity communication and human sacrifice have also been discovered along the Gulf Coast. The best known examples come from the Late Classic Period site of El Tajín. Although El Tajín's apogee dates to just after the decline in use of many of the temple pyramids at Cantona, the site's iconography offers valuable information about ritual practice related to decapitation and ballcourts in a time period very near that of interest at Cantona. El Tajín, situated in the northern-central region of the Gulf Coast contained, like Cantona, a large number of ballcourts (17 have been identified), predominantly located in the city's ceremonial center. Running along the borders of the site's Southern Ballcourt, bas-relief friezes recount an elaborate ceremony in a step-by-step fashion. The south-east panel, identified by Wilkerson (1991:58-59) as the first scene, shows the ritual's protagonist being dressed as a warrior and being handed a spear bundle by an attendant. The ritual importance of the scene is underlined by the presence of a skeletal deity in a vat of liquid who watches the action as well as that of two glyphs, one referencing the planet Venus and the other *ollin*, or

movement. In the scene that follows, musicians appear to beat out a rhythm as a figure wearing a bird (eagle?) costume raises its arms above the protagonist who is reclining, with crossed arms, on a table-like structure. The same divinities are present as in the first panel, accompanied now with the defleshed figure of Venus. The scene then shifts to a ballcourt whereby two individuals, dressed in ballgame attire, stand face to face with a ball at their feet. Two attendants stand by, one of them wearing a dog or rabbit mask. As before, the skeletal divinity present, although separated from the action by a tall plant stalk, likely representing maize. The fourth panel, on the northeast section of the wall,

depicts a human sacrifice taking place in a ballcourt. Here, the masked attendant has disappeared and three ballplayers are depicted on a court. One player pulls the arms of a second, seated player, behind his back while third ballplayer leans in to sacrifice the seated individual with a large blade (Figure 32). skeletal deity descends

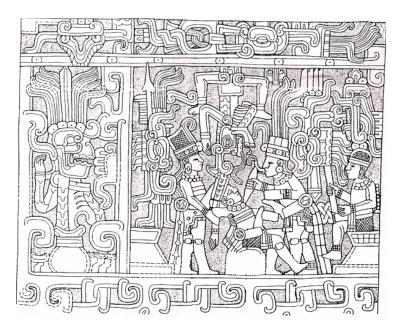


Figure 32. Sacrifice scene from the northeast panel of the Southern Ballcourt, El Tajín. (From Wilkerson 1991:61).

from above onto the sacrificial victim while an attendant, seated on the wall of the ballcourt, looks on (Ladrón de Guevara 2000, Wilkerson 199158-63).

The following scenes, on the north-central and south-central panels of the ballcourt, take place in a supernatural realm surrounded by symbolic glyphs that Wilkerson (1991:65) interprets as Venus and lunar glyphs and human femurs. In the first of these scenes, a standing individual holding a jug, who Wilkerson believes to be the sacrificed ballplayer from the previous scene, appears before a cohort of deities, two of which are seated on an elevated structure filled with liquid while a third lounges on the floor. The symbols attached to the divinities allow the two upper deities to be identified

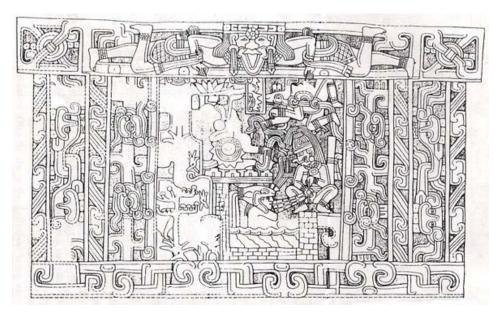


Figure 33. Image of supernatural being (center, squatting) performing ritual bloodletting by perforating his penis, Southern Ballcourt, south-central panel, el Tajín. (From Wilkerson 1991:66).

as the Rain God and the Wind God. The individual is requesting *pulque*, an alcoholic ritual drink made from maguey plants, from the present divinities. In certain myths, *pulque* was believed to come from a 'mountain of foam', in the same way water was thought to emerge from an *altepetl*. The final scene, on the south-central panel of the ballcourt, also takes place in an otherworldly setting. The jug-carrying individual has disappeared and the vat – presumably of *pulque* – on which the divinities were sitting, is now two-thirds empty. A divinity, similarly attired to the lounging deity on the previous panel, sits on his haunches in front of the vat opening and runs a spike through his penis. The blood from this action flows into the vat where it becomes *pulque*, replenishing what was taken. A character wearing a fish helmet stands inside the structure and receives the new liquid (Figure 33) (Ladrón de Guevara 2000: 38, Wilkerson 1991:67).

Although the details and the exact identities of the individuals involved are still unclear, the southern ballcourt panels provide valuable information about sacrificial rituals among the people of the Gulf Coast during the Classic Period. The ritual actions depicted involved a number of participants, all of whom were richly attired. The playing of musical instruments was involved in the preparation leading up to the ballgame, and *pulque*, an alcoholic beverage, was likely also to have been consumed. The main participants were surrounded by a number of attendants who aided them in their preparation and watched the ritual from the sidelines. After facing off on the ballcourt, a

player was sacrificed and an individual (perhaps the sacrificed player?) traveled into the domain of the gods. This elite access to the divinities' universe was also underlined in the jaguar, toad, and earth monster decorations of ballgame ceremonial wear. Once arrived, the traveler was granted an audience with the gods and was able to extract from them the precious elements they created and guarded. In order to provide for the needs of human beings, the divinities themselves needed to conduct acts of sacrifice to replenish what humans used, as seen by final ritual bloodletting scene. In the ideology represented by these ritual actions, all elements used by people have a precise source and in order to obtain them, something must be given in return. This rule, that offerings must be made to maintain stability, applies to deities as well as to humans and their mutual sacrifices serve to maintain the balance of the universe in which both exist. The sacrifice rituals depicted on the Southern Ballcourt at El Tajín were not single-event occurrences. Another image in the Temple of the Niches at the site, rendered in a later style, depicts a similar ballcourt scene in which a player, holding a sacrificial knife, has decapitated another. The streams of blood that emerge from the headless torso take the shape of snakes while the ball that lies at the feet of the players is shown as a skull (see Figure 37). A similar image from Aparicio, Veracruz, also shows a decapitated ballplayer with snakes emerging from his neck (Wilkerson 1991:57-63).

Aside from specific ballgame-related rituals whereby characters are able to communicate effectively with divinities, Gulf Coast iconography also sheds light onto the important elite individuals who were carrying out these rites. Unlike the impersonal images at Teotihuacán, bas-reliefs depictions at El Tajín glorifies the actions of individual rulers. Carved columns at El Tajín specifically recount the deeds of a ruler named 13 Rabbit. In one scene, (Figure 34) 13 Rabbit sits at the center of a large group with his arms crossed over his chest. His feet rest on a decapitated head and he is turning to face a disembowelment ritual occurring to his right. A lifeless body, whose head seems to be the one 13 Rabbit is stepping on, is laid out on a low table. The individual's innards rise from his stomach and entangle themselves on a scaffold showing maize plants. An attendant steps on the body while, behind him, an individual – most likely a warrior – holds two nearly naked captives, grasping one by the wrist and the other by the



Figure 34. Roll-out of scene from the Building of the Columns depicting 13 Rabbit (seated) overseeing sacrifice scene. (Adapted from Wilkerson 1991:52-53).

hair. To 13 Rabbit's left stands another attendant named 4 Axe who holds ballgame attire in his hands (Wilkerson 1991:52). Behind 4 Axe is an even larger number of retainers, many elaborately dressed with their names appearing above their heads who are also holding bound or struggling prisoners. It is probable that the other prisoners in line behind the sacrificed victim will suffer similar fates before the ceremony's end. 13 Rabbit's own involvement in obtaining the prisoners is underlined in his second appearance in the scene, this time as a soldier also grasping the hair of a captive (Wilkerson 1991:52-53). Certain prisoners are also accompanied by name glyphs, showing them to be fallen individuals of high rank. One prisoner in particular (5 Dog?) stands upright and wears an elaborate headdress despite having his arms tied behind his back.

In the scene on the column, the ritual being performed is tied to fertility, especially the growth of maize, which was symbolized and directly aided by the sacrificed victim's hanging intestines. The majority of the figures are turned, like 13 Rabbit, towards the decapitation and disembowelment scene indicating it to be the key event around which the scene is structured and over which the ruler is presiding.

6.3 Human Burials Associated with Monuments and Temple Pyramids

The high water table and heavy rains endemic to the coastal Veracruz region preserves bone poorly and the human remains found during excavations are often fragmented and difficult to analyse. Despite these challenges, some observations have been made concerning Gulf Cost human deposits. Excavations at several Classic Period mounds in the Mixtequilla Region in central-southern Veracruz by the Proyecto Arqueológico La Mixtequilla (PALM) uncovered a small number of human remains. An

excavated burial contained the remains of a poorly preserved male in his 20s or 30s placed in extended position with his arms at the sides. Charcoal was associated with the burial although the bones themselves were not burnt. A second burial in an associated mound contained the bones of a 50 year old female. The remainder of the excavations uncovered only small scattered bone fragments which may have belonged to burials that were disturbed or washed out by rainfall. Some bone fragments – those found in Mound 1055, had been burnt (Wheeler Smith 2001:247-252).

At Cerro de las Mesas, more evidence particularly related to temple pyramids was found. At the same site where images on stelae depict elite figures involved in bloodletting rituals, skull fragments show evidence of cranial deformation (Wheeler Smith 2001:247-248). Decapitation, especially prevalent in ballgame iconography, was also present among the human remains in the archaeological record. An offering found underneath a platform associated with one of the site's main pyramids contained:

"The body of an adult male, adorned with jade earspools and a lavish shell collar, [which] was deposited laterally in a flexed position. His head — with a fronto-occipital deformation and dental incrustations indicating an elite status — was separated from the body and placed facedown in a marine conch-shell. The shell was filled with cinnabar and contained a pearl, a small jade monkey head, and two jade beads. Associated with the burial was a simple stone yoke, a turtle shell with the engraving of a human head encircled by two serpents with volute-style eyebrows, seven shell rattles, two figurines, and eleven ceramic vessels..."(Daneels 2008:198).

Also associated with the burial were two other individuals, one headless and the other whose decapitated head was located near the body (Figure 35). This assemblage dates to around 100 B.C. – 100 A.D. and is one of the earliest known examples of a decapitation ritual associated with



Figure 35. Artist's depiction of Cerro de las Mesas burial based on excavation description and photographs. (From Daneels 2008:200)

a yoke and volute style decorations (Daneels 2008:198-199). This find of three decapitated individuals underlines the importance of beheading among Gulf Coast

rituals. The presence of goods such as jade carvings, rattles, figurines, and a large number of ceramics brings to attention the value of the deposit, and the yoke points to a clear association with the ballgame. It is possible the individuals themselves were ballplayers who were sacrificed in a ceremony related to the game.

6.4 Gulf Coast Summary

During the Classic Period the civic and ceremonial architecture of the Gulf Coast shifted towards a Standard Plan of architecture whereby temple pyramids and ballcourts were organized around a central plaza, often with other associated plazas and reservoirs. This pattern is similar to that found in Cantona's Ballcourt Complexes where it was repeated in at least seventeen cases. The importance of the ballgame in political and ritual ceremonies in the Gulf Coast is highlighted in the iconographic representations of the time period in which figures dressed as ballplayers play a central role. Many ceremonies, including ballgame rituals, involved the decapitation of players as is indicated both on carvings and among human remains. Unlike the timeless rituals displayed on Teotihuacán murals, many of the iconographic representations from the Gulf Coast clearly identify the actors either within textual accounts or by prominently featuring the individuals' names above their heads. The message being delivered in Veracruz iconography and text is similar to that in the Highlands despite the many differences in representational format between the two areas. In both regions, elite persons are represented carrying out vital ceremonies in which they represent, or are able to communicate with, supernatural entities who control natural forces. In these areas, human sacrifice is one of the ways in which deity communication was made possible, as shown in the panels of the South Ballcourt of El Tajín. Sacrifice and bloodletting also helped contribute to the maintenance of the natural order, the growth of crops and the replenishing of sacred liquids such as water and pulque. The scene in which 13 Rabbit watches over the decapitation and disembowelment of a captive reinforces the ruler's position but also shows how the sacrifice of the victim, whose bowels intertwine with maize plants, contributes to the cycle of life, death and regeneration that dominated the Mesoamerican conceptual understanding of the world. The large amount of blood spilt

by decapitation and dismemberment would have attracted ritually important creatures such as cave-dwelling vampire bats which are commonly represented on ballgame paraphernalia. Elite bloodletting, referred to on stelae from Cerro de las Mesas, as well as auto-perforations performed by deities, as shown on the El Tajín South Ballcourt panels, also served to reinforce the social order and replenish sacred elements and forces.

Through trade networks and possible warfare (13 Rabbit's victims may be prisoners of war), the inhabitants of the Gulf Coast were in constant contact with neighboring polities. Trade with Teotihuacán is evident by the presence of Zoquean text on Teotihuacán style masks found in the Gulf area as well as by Gulf Coast items found in the highland metropolis. A large number of Gulf Coast populations obtained the bulk of their obsidian from Cantona's Zaragoza-Oyameles source, and this product was most likely traded for coastal goods such as ceramics, conch shells and greenstone. A Teotihuacán enclave at Matacapan reinforces the connection between the highland and coastal lowland regions and the presence of a Veracruz image accompanied with non-coastal text in the valley of Mexico demonstrates the high complexity of group interactions. These inter-regional contacts fueled ideological exchanges as well, creating a similarly held worldview articulated through a gradation of possible ritual actions.

7.

Interpreting Human Remains and Ritual Body Treatment in Cantona within the Mesoamerican Context

The archaeological discoveries at Cantona's temple pyramids have uncovered a wide range of human mortuary treatment. This includes the burial of individuals in seated flexed positions, as well as remains indicating decapitation, dismemberment, defleshing, flaying, boiling, and burning. Having looked at ideology and ritual performance from areas surrounding Cantona, it can be seen that similar practices occurred to a varying degree outside the city's sphere. In the Valley of Mexico, Puebla-Tlaxcala and the Gulf Coast, ritual sacrifice and violent mortuary treatment were associated with demonstrations of elite authority as well as with fertility rites and the need for rain and a plentiful harvest. Tables I through III below indicate which ritual body treatments were common among the regions analyzed.

Table III. Differential Human Body Treatment in Cantona and the Three Comparison Zones. Indirect evidence of human body treatment including iconography and artifacts (Icon/Artf.) is included next to direct data from human remains (Hum. Rem.) for each region.

	Cantona		Valley of Mexico		Puebla- Tlaxcala		Gulf Coast	
Human Body Treatment	Icon/ Artf.	Hum. Rem.	Icon/ Artf.	Hum. Rem.	Icon/ Artf.	Hum. Rem.	Icon/ Artf.	Hum. Rem.
Mortuary bundle (tied, tightly flexed position)	-	X	Х	Х	-	-	Х	-
Burning mort. bundle	-	-	X	-	-	-	X	-
Arms tied behind back (Prisoner of War)	-	-	-	X	-	-	X	-
Buried in extended dorsal position	-	-	-	X	-	X	-	X
Seated in lotus position	-	-	X	X	-	-	X	-
Individuals cut in half	-	X	-	-	-	-	-	-
Human Skulls	-	X	X	X	X	X	X	X
Decapitation	-	X	-	X	-	X	X	X
Skulls exposed to fire	-	X	-	-	-	-	-	-
Flaying	-	X	X	-	X	-	X	-
Defleshing	-	X	-	X	-	-	-	-
Dismemberment	-	X	-	X	-	X	X	-
Bones exposed to fire	-	X	-	-	-	X	-	-

Boiling	-	X	-	•	-	-	-	-
Heart Extraction	X	-	X	-	-	-	X	-

Table IV. Traits in Common between Regions: Human Remains Only

	Cantona	Valley of Mex.	Puebla-Tlaxcala	Gulf Coast
Cantona	///////////////////////////////////////	///////////////////////////////////////	///////////////////////////////////////	///////////////////////////////////////
Valley of Mex.	5 (38.5%)	///////////////////////////////////////	///////////////////////////////////////	///////////////////////////////////////
Puebla-Tlaxcala	4 (30.8%)	4 (30.8%)	///////////////////////////////////////	///////////////////////////////////////
Gulf Coast	2 (15.4%)	3 (23.1%)	3 (23.1%)	///////////////////////////////////////

Total traits compared: 13

Table V. Traits in Common between Regions: Human Remains and Indirect Evidence

	Cantona	Valley of Mex.	Puebla-Tlaxcala	Gulf Coast
Cantona	///////////////////////////////////////	///////////////////////////////////////	///////////////////////////////////////	///////////////////////////////////////
Valley of Mex.	7 (46.7%)	///////////////////////////////////////	///////////////////////////////////////	///////////////////////////////////////
Puebla-Tlaxcala	6 (40.0%)	5 (33.3%)	///////////////////////////////////////	///////////////////////////////////////
Gulf Coast	6 (40.0%)	10 (66.7%)	5 (33.3%)	///////////////////////////////////////

Total traits compared: 15

As the tables demonstrate, no two regions had identical patterns of human body treatment in ritual contexts. It is evident that the lack of data and differential preservation of the archaeological record between regions skew the results in favor of better known and better conserved sites. This is especially noticeable in the case of human remains data from the Gulf Coast where bone conservation is poor due to the area's natural environment. For this reason, indirect evidence such as iconography is also included in an attempt to create a more representative analysis. Table III indicates that Cantona shared the majority of its human body treatment practices with the Valley of Mexico. This contradicts the architectural and trade route data which point to a much stronger connection between Cantona and the Gulf Coast. When looked at more closely however, it can be seen that the difference is in only one trait, defleshing, which is most commonly observed in bone remains and will thus be underrepresented in areas such as the Gulf Coast where bone does not preserve well.

Although there seems to be a greater social distance between the major highland sites and Cantona (Cantona's architecture, pottery and artistic representations appear to strive to break the aesthetic norms put forth by Teotihuacán and copied elsewhere), a clear difference between the regions does not appear when comparing ritual human body treatment. All regions amongst themselves shared on average 43.3% of their observed

traits with at least one other area. Key practices such as decapitation, flaying and dismemberment were present in all of the zones observed. The similarities that exist among regions are reflective of a relatively high level of commonly held ritual practices throughout the Mesoamerican area. The presence of similar items such as conch shells and Pecked Cross Symbols associated with ritual complexes (and often linked to sacrifice) in each of these regions further serves to underline the existence of a panregional belief system articulated in each area by means of comparable rites. It is within the context of this belief system that the ritual practices and human body treatment at Cantona can be examined.

7.1 Individuals in Flexed, Seated Position

The majority of individuals found at Cantona who were not disarticulated or dismembered were buried in a flexed position, often seated. The extreme degree to which these individuals were bent indicates they were most likely tightly bound in this position although no trace of cloth that could have been used for this purpose has been found. These burials are different, however, from the flexed burials located at Teotihuacán's Feathered Serpent Pyramid, whose arms were often tied behind their backs, a position that is indicative of prisoner status. The burials at Cantona have their arms by their sides or flexed in front of their torsos. Although this does not entirely discard the possibility that these individuals were prisoners of war, (prisoners' arms, after all, can be bound in a number of fashions), other possibilities should be investigated as to the identity of these individuals.

The creation of mortuary bundles was a common way of preparing the bodies of the dead throughout prehispanic history in central Mesoamerica. The Temple of the Agriculture mural in Teotihuacán shows the practice was carried out by natives of the Gulf Coast in the highland city. Excavations in Cholula also uncovered individuals interred in flexed positions who may have been buried as mortuary bundles. Aztec codices frequently depict the deceased as a seated flexed figure wrapped in a shroud and bound in place by cords. Franciscan friar Toribio de Benavente Motolinía, who arrived in the New World in 1524, wrote that individuals who died of common illnesses were



Figure 36. Mortuary bundle with offerings. Magliabechiano Group. (From Nuttall 1983:69).

carefully seated and swaddled in cloth and a stone was placed in their mouth, representing the heart. A painted mask was put over their head and the entire bundle was decorated with symbols related to the town's patron deity. The bundle was then cremated along with numerous offerings and the ashes were collected and safely stored (Chávez Balderas 2007:72-74). In the conquest-era Codex Magliabechiano at least four

mortuary bundles are represented in various scenes. The deceased individuals are of high or middle class status and their bundles appear richly adorned with feathers, tassels and bells (Figure 36). The family of the dead mourns and makes offerings of food and paper objects to the deceased. One portion of the text describes how one or two slaves were sacrificed in front of the bundle to serve as retainers to the dead (Nuttall 1983: 66). Individuals who had died in water-related accidents or of diseases such as dropsy, gout or scabies were also wrapped in mortuary bundles but were not cremated. Instead, they were directly inhumed, facing east, the direction of Tlalocan, the watery paradise their souls were believed to go to (Iguaz 1993:67, 71-72).

The data obtained from both Classic and Postclassic/Conquest Period examples show that individuals represented in seated flexed positions refer to either bound prisoners of war or high-ranking members of society who are wrapped in tight funerary bundles by their loved ones at death. Because the position of the arms in Cantona does not follow the conventional position for bound prisoners of war, it is probable this category does not represent sacrificed battle captives but rather deceased individuals who were bundled and buried as part of a funerary rite. The examples from Cantona, like those from Puebla-Tlaxcala, were not burnt as those depicted in the pyres from the Temple of Agriculture mural in Teotihuacán. A possible explanation for this is that the burning of human bones had a special significance in Cantona and was reserved for specific non-funerary rites. Because of the arm position and since a number of the seated

flexed individuals were discovered with a small selection of offerings, it is likely that Cantona's flexed, seated burials represent high-ranking individuals, perhaps priests or religious leaders who had lived and worked in the city's civic and ceremonial complexes. Talavera, Rojas and García have identified what they believe to be a domestic structure in one Temple Pyramid Group, inhabited by a priest (2001:122). They also believe that certain individuals buried in Temple Pyramid Groups in Cantona may have been priests or ritual actors (2001:100). Upon their death, these ritual actors were tied in a tightly flexed position and were inhumed in the ceremonial complex, possibly in the same temple pyramid where they themselves had once conducted rituals. In large majority, these individuals were placed facing north. Of the fifteen flexed burials found at temple pyramid summits whose body and facial direction was specified, eleven were turned either north, northwest or northeast. This north facing orientation is important as, in the Mesoamerican worldview, each of the cardinal directions was associated with specific colors, elements and supernatural places. Unlike the green and fertile east, towards which Tlalocan-destined mortuary bundles which were oriented, the north was associated with darkness and cold. Bernardino de Sahagún noted that the north was also the direction of Mictlán, the land of the dead and that

"...porque creían que a la parte del septentrión los difuntos se iban, por lo cual en la superstición que hacían con los difuntos cubiertos con las mantas y atados los cuerpos, hacínalos asentar vuelta la cara a septentrión o mictlampa. [...because they believed that the dead went towards the north, and in their superstition they covered the dead in blankets and tied them with cords, making them sit facing north or mictlán]." (Sahagún 1989:6:487, translation by the author)

Since the individuals found at Cantona follow the same orientation pattern described by Sahagún, it is proposed here that the human remains found in seated flexed positions at the summit of temple pyramids and in pyramid complexes at Cantona were high ranking individuals who were prepared for their final journey by being tied in a flexed position and buried facing the direction their soul would take in their voyage towards the realm of the dead.

7.2 Human Skulls

Among the assemblage of human remains associated with the temple pyramids and monuments at Cantona were a number of human skulls, found either isolated or in small clusters. Human skulls and decapitation are recurring elements throughout Mesoamerican iconography. In Teotihuacán, a large stone disk was located in the Plaza in front of the Pyramid of the Sun depicting the setting sun as a human skull with rays that were colored red (Matos Moctezuma 1990:181). In Cholula, the Building of the Grasshoppers depicted supernatural insect-like animals with human skulls while in the Patio of the Carved Skulls, a small structure was covered with plaster skulls. The skulls represented in the Patio of the Carved Skulls may be a plaster version of a tzompantli, or skull rack, which was common in the Highland region and the Gulf Coast at the time of the conquest. During the month of Toxcatl, the highland Nahua celebrated the most important religious event of the year. A young man who had been chosen to impersonate the deity Tezcatlipoca for the duration of the previous year was honored in a final ceremony before being sacrificed and subsequently beheaded. His head was then placed on a tzompantli and another youth was chosen to act as Tezcatlipoca until the following year's festival (Sahagún 1989:2:84).

Decapitations are also clearly represented in the iconography from Veracruz. The bas-relief sculptures from El Tajín show 13 Rabbit overseeing a scene of ritual sacrifice

in which he sits with his arms crossed, and his feet are firmly planted on top of the decapitated head of the sacrificial victim. In the Pyramid of the Niches from El Tajín players stand on a ballcourt where the ball has the shape of a skull. In the Gulf Coast, skulls and decapitation especially are associated with the ballgame, as noted in a large number of Veracruz

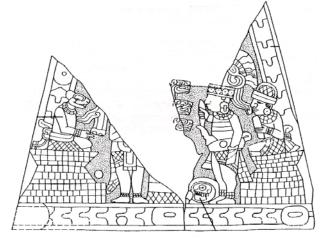


Figure 37. El Tajín Temple of the Niches ballgame scene. (From Wilkerson 1991:63)

ballgame equipment such as *hachas* and *palmas*. In these examples, decapitation and severed heads appear time and time again as can be seen on a *palma* from Coatepec. Torsos whose heads have been removed are also frequently depicted in ballgame scenes whereby the blood gushing from the headless necks takes on the form of snakes. In a ballgame scene from the Temple of the Niches in El Tajín (Figure 37) a sacrificer, holding a knife, stands next to a decapitated individual (identifiable by the three visible serpent heads presumably issuing from the neck). The ball rests at the scarificer's feet and is shown as a skull (Wilkerson 1991:63).

In the Maya region, where the ballgame was also played and featured in public art, the decapitation of ballplayers had mythological significance. In the Maya-Quiché Popol Vuh, a set of twins, Hun Hunahpu and Vucub Hunahpu, are lured into Xibalba, the realm of the Lords of Death who are angry at the twins for their loud ballgame playing above them. Tricked by the Lords of Death, the twins are sacrificed and buried in the ballcourt of the underworld. Huh Hunahpu's head is severed and hung in a calabash tree. The head then spits into the hand of Xquic, one of the daughters of the Lords of Death, impregnating her. Xquic flees the underworld and gives birth to another set of twins – the Hero Twins Xbalanque and Hunaphu. These two also descend into the netherworld to play ball with the Lords of Death. Through a series of events Hunaphu's head is decapitated and is presented as the ball for a ballgame tournament the twins had agreed to play against the underworld denizens. Xbalanque is able to return his brother's head to his body, substituting the "ball" (Hunaphu's head) with a calabash and thus enabling the twins to beat the Lords at the game (Taube 1993:56-60). As seen in these examples, human heads frequently replace the ball. Susan D. Gillespie believes that "...one way decapitation is related to the ballgame is that the ball, a necessary instrument of the game, is equated with a bodiless head, and it must be procured by removing someone's head, either symbolically or literally" (1991:326).

For the Aztecs, the head was linked to a wide range of concepts. The first is the association between heads and the cosmos where the word for "head" and that for "sky" were synonyms. The crown of the head and hair were especially valuable as these housed the *tonalli*, a portion of an individual's essence or soul. The head, along with the heart, was considered a seat of reason and faces were believed to show honor and worth. The

head was also the carrier of social status as it was decorated with jewels, headdresses, hairstyles, paint, etc. that determined an individual's position (López Austin 1984:184, 398).

Archaeological evidence of decapitation was located at Cerro de las Mesas, Veracruz, where individuals with severed heads associated with ballgame paraphernalia were found. In the Pyramid of the Moon at Teotihuacán, a burial dating from the early Classic Period contained ten decapitated individuals whose heads were missing from the grave. These ten appear to have been retainers accompanying the two central (non-decapitated) figures in the burial. Another deposit from the Pyramid of the Moon contained 18 severed heads. The frequent representation of decapitated heads in both the iconographic and archaeological record throughout the Mesoamerican region indicates that heads were widely regarded as having a high symbolic value and were often viewed as the seat of an individual's character.

The human heads found associated with temple pyramids at Cantona cannot be directly attributed to the ballgame although many ballcourts are located in the vicinity of the structures and it is possible many skulls belonged to ballplayers. Some of the heads at Cantona were discovered without the first few cervical vertebrae, which in a freshly decapitated individual remain attached to the base of the skull by the surrounding muscle. This may indicate that the temple pyramid skulls were buried after the flesh had been removed, either by artificial or natural processes. Some of the skulls had also been exposed to fire and it is possible the vertebrae became detached in the flames. One burial at the summit of the temple pyramid of CBC 9 included a body whose head had been removed. The individual was buried with a number of grave goods including a bracelet of green and white stone, possibly indicating elite status. Skulls were found isolated, in small caches of multiple heads or included with dismembered individuals. They do not appear to have been featured in tzompantlis or on the exterior of buildings or structures. Their high presence in ritual burial context however (or marked absence, as in the case of the CBC 9 burial where the head was missing) indicates that in Cantona, human heads and skulls possessed a unique symbolic value.

7.3 Dismemberment and Defleshing

A large portion of the bones found in the Temple Pyramid Groups at Cantona showed clear marks of dismemberment. Cut marks located by the epiphysis or along areas of muscle attachment are common traces of dismemberment (Lagunas Rodríguez and Hernández Espinoza 2007:136) and such marks appear frequently in Cantona human bone assemblages. Iconographical sources indicate that dismemberment was practiced in Classic Period Veracruz as images from a *palma* showing a mutilated body attest to. Other Classic Period sources from the Petén region also show the dislimbed bodies of prisoners of war or slaves. In the Codex Magliabechiano, human forearms appear among the offerings made to mortuary bundles (Nuttall 1983:67). Dismemberment is also



Figure 38. Image of Titli feast. Magliabechiano Group. (From Nuttall 1983:72).

alluded to in an illustration of a feast called Tititl which celebrated in the memory individuals who have died within the past three years. In this feast an idol that represents the deceased is made and adorned with colored paper and feathers. Offerings of paper, cacao and food is made to the idol while people play music and sing. Among the offerings drawn in the Codex

Magliabechiano (Figure 38) is a bowl containing a human arm (Nuttall 1983:71-72). Other conquest-era accounts of dismemberment can be found in Sahagún's *Historia General de las cosas de Nueva España* and illustrated in the Florentine Codex. In these sources victims of sacrifice are often dismembered after their death and their body parts are then distributed among important personages to be consumed (Sahagún 1989:2:96, 98, 104, 190). In one Aztec myth, Huitzilopochtli, the god of war, kills his jealous sister Coyolxauhqui, throwing her dismembered and broken body down to earth. The large stone disk representing Coyolxauhqui found at the base of the *Templo Mayor* in Mexico

City shows the splayed, beheaded, and dismembered body of the goddess as she is believed to have landed. Specific isolated body parts were also thought to be imbued with special powers. The bodies of women who died in childbirth were especially potent and Nahua soldiers believed that wearing the hair and the middle finger of the left hand of these women into battle would make them brave and protect them from harm. Thieves also coveted body parts from women who died in childbirth, maintaining that carrying the disarticulated left arm of these women would paralyze their victims who, although they might see what was happening, would be unable to stop the thieves (Sahagún 1989:6:410).

Iconographical representations of human bones also hint at dismemberment and defleshing. Human jawbones had strong symbolic value and many of the buried individuals at the Feathered Serpent Pyramid at Teotihuacán wore necklaces strung with pendants shaped like human jaws. In the Maya region, colonial accounts describe how warriors would detach the jaws of their slain enemies and remove the flesh so they could be worn as armbands (Miller 2007:180). In the El Tajín sculptures of the South Ballcourt, Wilkerson (1991:65) interprets a section of the scene's border as representing human femurs. Also in the El Tajín scenes, the divinity that rises from a large vat and observes the ballgame and sacrifice is entirely devoid of flesh, its skeletal torso, arms and head being the only thing visible. Detached and defleshed long bones, especially femurs, seem to have been held in special esteem throughout the Mesoamerican culture sphere. On the Battle Mural in Cacaxtla, members of the victorious army are shown wearing blood-spattered femurs hanging from their hips. This is similar to the festival of Ayacachipixolo, during which Aztec warriors displayed the fleshless femurs of their defeated and sacrificed captives in the patio of their homes as proof of their bravery (Sahagún 1989:2:113).

Among recovered human remains, femurs seem to have played an important part in both Cacaxtla and Cantona. They are depicted in the Battle Mural in Cacaxtla, and eight children found in a multiple burial were represented in the archaeological record only by their skull and long bones. Other Cacaxtla finds also contained high percentages of long bone fragments while yet another burial of a man and a woman on the side of

Cerro de Cacaxtla included an extra tibia. In Cantona, many of the burials found in

Temple Pyramid Groups contained a high number of long bones, especially femurs and tibias. In the burials located at the summit of U71-1 the only bones belonging to multiple burials that appear to have been handled with a specific order or arrangement in mind are femurs and tibias which were collected and placed together either horizontally or vertically in the grave. While in the excavation of U71-1 it



Figure 39. Dismemberment scene using hafted blades. Florentine Codex. (From Sahagun 1951, illustrations).

was relatively common to find isolated vertebrae and bone fragments in the pyramid fill, no isolated long bones were located. Rather, long bones appear to have been grouped in burial contexts whereby certain interments had a high representation of long bones present compared to other bones. Dismemberment was also present in the summit of U71-1 as well as in the pyramid of CBC 5. The flexed, seated body found in the wall of the *cista* in U71-1 was cut in half horizontally while muscle and soft tissue were still attached. The lower portion of the body was left in the wall while the upper part was taken away. A similar situation occurred in CBC 5 where a body was cut vertically down the middle and only one half was located.

Iconographic sources such as the Madrid Codex and the Borgia Codex show individuals carrying wood and obsidian axes while in the Florentine Codex an image shows a scene of dismemberment using clubs spiked with dark colored blades, most likely obsidian (Figure 39). In Cantona, rectangular and triangular obsidian blades of various sizes called *tranchet* have been found in the civic and ceremonial center, associated with burials and ritual offerings. An analysis by Juan Martín Rojas (in García Cook and Merino Carrión 2005a:318-319) of these instruments discovered thin parallel grooves on the stone, suggesting they had been hafted. A deposit from the summit of the temple pyramid of Cantona Ballcourt Complex 5 examined by Rojas contained a right femur from an adult male burial with an elliptical percussion mark on the proximal

epiphysis. The mark on the bone fits perfectly with a *tranchet*, allowing Rojas to conclude that human dismemberment by percussion in Cantona was most likely carried out using *tranchets* associated with the finds. As with decapitation, the dismemberment and defleshing of individuals would have shed a large amount of blood, which, as an essential life-giving liquid, would have been offered to the gods. In some instances, bones with cut marks had also been exposed to fire. In many of the conquest period texts, sacrifice and dismemberment occurred as precursors to human consumption, and it is possible a similar ritual took place in Cantona (see more details in chapter 8).

7.4 Flaying

Flaying, the removal of the skin, leaves very few visible traces and can only be identified by marks on bones that are near the skin's surface or that serve as a support for the blade. Signs of flaying therefore are visible primarily on the skull although they can also be present on the clavicles and scapulae (Medina Martín and Sánchez Vargas 2007:107). In Cantona, evidence of flaying exists on a number of human remains including a dismembered burial at the summit of temple pyramid U71-1. Within Mesoamerica, flaying was most commonly associated with the deity Xipe Tótec, or "Our Lord the Flayed One", a springtime deity linked to rejuvenation and agricultural fertility (Figure 40). Early representations of this divinity appear in the Late Preclassic Period in

south-central Veracruz where figurines wearing buccal masks of painted asphalt are present. The masks represent the flayed skin of the victim which, as described in later accounts, was worn by the participants in the Xipe ritual. The representation of the Xipe cult spread over time, and figurines changed from being hand sculpted to mold-made in the Classic Period.



Figure 40. Xipe Tótec Ritual. Prehispanic sculpture of individual wearing flayed skin on head and body. Museum der Kulturen, Basel. (From Dehouve and Vié-Woher 2008:183, 185).

These mold-made figures were also found in a wider expanse of the Mixtequilla region. In the Late Classic, the Xipe Tótec figurines were even more common and appeared further north in sites such as Chachalacas near Zempoala (Wilkerson 1979:197). Xipe Tótec representations were also present in Teotihuacán during the later period of the site's occupation and growth (Manzanilla 2001:232).

According to Spanish chronicler Bernal Díaz del Castillo, Xipe Tótec was still being worshipped along the Gulf Coast at the time of the conquest; Cortés and his party discovered the skinned remains of the Piñeda party which had arrived in Veracruz before them (Wilkerson 1979:105-106). Bernardino de Sahagún writes that during the feast of the month of Tlacaxipehualitztli, also dedicated to Xipe Tótec, captives were made to climb to the top of a temple pyramid where they were sacrificed by heart extraction. Their bodies were then rolled down the pyramid stairs where another group of specialized older priests, called *cuacuacuilti*, received the bodies to skin them and divide them into pieces to be eaten. The flayed skins were then distributed among the warriors who had captured the sacrificial victims. These warriors then wore them over their bodies for the remainder of the month as penitence for the deceased captive. The skins were worn for 20 days until the feast of Ayacachpixolo, at which time the warriors were allowed to remove them. These were then hidden in a cave by the warriors and also by sick members of the community who believed that helping to hide the victim's skins might cure their illnesses (Sahagún 1989:2:112). The eleventh month of the Aztec calendar, Ochpaniztli, included another ceremony whereby flaying was practiced. The month was dedicated to Teteoinnan or Toci, the mother of the gods. A woman who had been chosen to act as the goddess was richly adorned in clothing and ornaments representative of her divine status. She was then brought to a temple at night where she was decapitated and flayed. Her skin was worn by a youth who then proceeded to the temple of the Aztec god Huitzilopochtli where he sacrificed four captives (Sahagún 1989:2:91).

As can be seen by the examples above, the flaying of sacrificial victims has a long history in Mesoamerica. Since the earliest examples of Xipe and flaying are found on the Gulf Coast, it is probable that the cult originated in south-central Veracruz from which it then spread throughout the coast and to the highlands (Wilkerson 1979:108),

reaching Teotihuacán by the Middle to Late Classic Period. Since Cantona had clearly established ties with the Gulf Coast and osteological evidence from the site indicates that flaying was practiced, it can be presumed that the skinned victims from Cantona were sacrificed to a Xipe Tótec like divinity, associated with agricultural fertility and springtime renewal.

7.5 Boiling and Burning

Among the civic and ceremonial center finds at Cantona many of the cut and dismembered bones also showed traces of having been boiled or exposed to fire. The presence of boiled bones may indicate that individuals or parts of individuals were cooked for consumption, but boiling bones also makes them easier to work, and boiling was often a step in making bone tools (Medina Martín and Sánchez Vargas 2007:111, Talavera, Rojas and García 2001:25). Burnt human bones are not only found at Cantona. Discoveries in Cacaxtla include over 52 burnt individuals, predominantly children, found in the portico of the Palace. The burning of individuals is also detailed in codices and historical sources. In the highlands, on the first day of the tenth month, Xócotl Huetzi, the indigenous inhabitants celebrated *tlaxochimaco* in honor of the god of fire. In this celebration a number of captives had their feet and hands bound and were thrown into a large fire. They were removed while still alive and put out of their misery by heart sacrifice. A similar ceremony was carried out during the twelfth month, Teutleco, which celebrated the return of the gods from various voyages. Again in this feast, captives were partially burnt in a bonfire before being removed and having their hearts extracted (Sahagún 1989:2:90-92).

Among Central Highland and Maya groups, fire was considered a transformative element, capable of breaking down the barriers between the world of the living and that of the supernatural. Cremation by a well fueled funeral pyre – a mortuary practice which was common among the Aztecs – could break down a body in around ten hours, something that would take nature months, even years, to complete. In the context of a funeral pyre, fire and smoke often provided the means of communication between the human world and the deceased's soul which was traveling towards its final destination.

Elite individuals were often cremated throughout the Mesoamerican Postclassic world and their ashes often buried within a temple (Chávez Balderas 2007:127-132). In the Classic Period Maya region, smoke let off from the burning of blood-soaked bark paper and *copal*, a sweet-smelling resin, served as the means of communication between elites and their ancestors as well as with divinities (Schele and Freidel 1990:88-89).

From the archaeological discoveries made at Cantona, it is obvious that the exposure of bodies to heat was an important part of the ritual practices carried out in the city's ceremonial complexes. Boiled human bones were common and 27 adult skulls examined by Talavera, Rojas and García (2001:19) had all been boiled and skinned. Boiled bones are often the indication of cannibalistic practices and of tool making as bones that have been boiled are easier to work. In Cantona, both human consumption and bone tool making seem to have occurred and a number of boiled human bone utensils such as handles, ceramic polishers and awls have been found among Cantona's tool assemblages. Among the tools made at Cantona with human bone was an *omechicahustli*, a musical instrument that produces a high-pitched rhythmic sound when rubbed with another bone shard or wooden stick. This instrument was used in ritual events, predominantly those related to fertility. They were also used with funeral ceremonies for fallen warriors (Talavera, Rojas and García 2001:55-85).

In addition to boiling, a large portion of the human bones found associated with Cantona's Temple Pyramid Groups had been exposed to fire and had cut marks and traces of dismemberment and filleting. Unlike complete cremation, a process meant to eliminate the body by transforming it into ash, many of Cantona's burnt bone assemblages contained complete or only partially fragmented bone instead of the smaller splinters one might expect from a complete and intentional cremation process (Chávez Balderas 2007:146-147). The majority of the Cantona burnt assemblages contained more than one individual and there is as of yet no evidence for multiple cremations in Mesoamerica. These factors indicate that the burnt human assemblages at Cantona cannot be considered funerary cremations and are instead the result of a separate mortuary process in which bodies were exposed to fire as part of a ritual ceremony. This ceremony may have been similar to the Aztec celebrations of Xócotl Huetzi and

Teutleco. Another possibility is that the burnt bones are the result of cooking for human consumption.

7.5.1 Cannibalism

Through bloodletting and sacrifice, the ritual actors at Cantona were able to contribute to the balance between life and death that determined cosmic order. Another practice, however, enabled them to communicate directly with the powerful forces that had created and were maintaining the world as they saw it. Ritual cannibalism provided the way for priests and ceremonial actors to equate themselves with the divine and was one of the gateways used to access the realm of the supernatural. Iconographic evidence from both the Gulf Coast and the Maya area shows important ritual actors interacting with divinities. Maya elite, as shown in an example from Yaxchilan, were able to communicate with otherworldly beings though bloodletting and the burning of bloodsoaked paper. The deities manifested themselves in the volutes of smoke let off by the burning offering and the smoke opened the way for the leaders to communicate with the divinities. In El Tajín, the ballcourt mural shows how, through a ritual sacrifice, a human individual was able to enter the spirit world and was given an audience with divinities in order to obtain a ritual drink. A similar opening between the human and supernatural world was created through ritual cannibalism in Cantona.

The reasons for cannibalism are as varied as the cultures and situations in which it

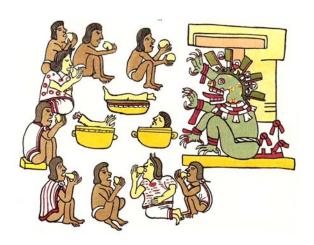


Figure 41. Ritual cannibalism in front of Temple dedicated to Mictlantecuhtli. Magliabechiano Group. (From Nuttall 1983:73).

is practiced. In Cantona, however, it appears to have been carried out in a ritual context by designated members of society who had access to the ceremonies being performed. As mentioned above, sacrificial rites are often understood as a process that allows communication between the actor and the supernatural being the sacrifice is dedicated to. Consumption by the ritual actors of the sacrificed

element, whether plant, animal or human, engenders an act of communion wherein sharing a meal forms a link between the human actors and the supernatural beings (Weber 1968:423). In Mesoamerican beliefs, the consumption of human flesh was an act ideologically associated with divinities (Figure 41). By consuming the flesh themselves, the actors elevated themselves to a divine status. In a discussion of the temples of the Aztec capital Tenochtitlán, Sahagún writes that

"El septuagesimosexto edificio se llamaba Acatl Yiacapan Hueicalpulli. Esta era una casa donde juntaban los esclavos que habían de matar a honra de los tlaloques, ya después de muertos luego los hacían pedazos y los cocían en esta misma casa. Echaban en las ollas flores de calabaza. Después de cocidos comíanlos los señores y principales. La gente popular no comía dellos [The 76th Building was called Acatl Yiacapan Hueicalpulli. It was a house where they gathered the slaves that they had to kill to honor the tlaloques, once dead they divided them into pieces and cooked them in that same house. They added squash flowers into the pots. Once cooked, the lords and principals ate them. The common people did not eat them.] (Sahagún 1989:2:188, translation by the author).

This description is especially telling for various reasons. First, it clearly associates human sacrifice and consumption to the honoring of tlalogues, water deities affiliated with the god Tlaloc. Secondly, it describes how both the preparation and consumption of the victims occurred in the same religious structure. This was probably also the case for the finds in Cantona's Temple Pyramid Groups where the sacrificed individuals were killed, prepared, eaten, and buried all in one location. Finally, the excerpt shows how the consumption of human flesh was restricted to the ruling class. In the ceremony described, only the nobles and principals were able to carry out the ritual and the communication with the divinities it involved. In both the Aztec and Cantona cases cannibalism did not occur solely in Temple Pyramid Groups however. The Florentine Codex includes multiple examples of cases where prisoners of war and slaves were sacrificed and divided among the warriors and ceremony attendees on location. The parts were then brought home by each individual to be prepared and consumed. Osteological evidence points to a similar practice in Cantona where certain structures and housing units not directly associated with a ceremonial precinct contained traces of cannibalism. In these cases, as in the Florentine Codex descriptions, the butchering likely occurred in ceremonial precincts such as Temple Pyramid Groups, and parts were then brought to residences to

be consumed (Talavera, Rojas and García 2001:92-96). It appears then that two sorts of ceremonies involving cannibalism took place, one, dedicated to the gods of water, where the victims were killed and consumed within the same Temple Pyramid Group and a second one where the victims were killed within a sanctified area but were then consumed in the homes of the participants. Nonetheless, both cases limit the consumption of human flesh to high-status members of society, giving them the capability to participate in a godly act.

7.6 Human Heart Extraction

Perhaps one of the best known sacrificial practices among prehispanic Mesoamerican populations is that of heart sacrifice. In this ritual, described in numerous occasions by Spanish conquistadors and missionaries, slaves and captives were bent backwards over a low stone pillar in front of a temple. Using a large obsidian blade, a priest would quickly cut the captive's abdomen in order to extract his still beating heart. The inert body was then rolled down the temple stairs while the next victim was being prepared. During the month of Etzalcualiztli, the hearts were placed in a stone receptacle and were ceremoniously offered to the sun or to Tlaloc, the Aztec god of rain (Sahagún 1989:2:130). The practice of heart extraction is known in detail because of conquest era accounts and codices commissioned or drawn by the Spanish themselves. No explicit image or description of the ceremony exists from prehispanic times although it is constantly alluded to in the ubiquitous presence of extracted human hearts in iconography dating at least as far back as Classic Period Teotihuacán. Heart extraction was likely also practiced in Veracruz (Kampen 1978:117). The discovery at Cantona of various anthropomorphic basalt *cuauhxicalli*, or vessels where extracted hearts were placed, along with the discovery of a falciform knife made especially for heart extraction, suggest that the practice also existed there.

7.7 Summary of Human Remains and Ritual Practice

Human remains and artifacts located at the summit of Cantona's temple pyramids and in the site's civic and ceremonial constructions indicate that a wide variety of practices were conducted within these complexes. Burials of flexed individuals oriented towards the north in temple pyramid summits may represent religious figures with the authority and prestige required to be buried within a sacred precinct. The position and orientation of these bodies are comparable to burial methods practiced among the inhabitants of the highlands at the time of the conquest. Such mortuary treatment was not typical for sacrificial victims but rather was reserved for adult members of society who had died of either accidental or natural deaths (Iguaz 1993). While the possibility that these individuals were sacrificed cannot be discarded, the position of their bodies and their careful orientation, together with the presence of grave goods associated with them suggest that, at least in death, these individuals were regarded with respect and treated with attention.

The mortuary treatment of flexed individuals contrasts with the remainder of the finds where evidence of sacrifice and the manipulation of human remains is prevalent. Decapitation, dismemberment, defleshing, flaying, boiling and burning all point to a number of ritual actions whereby the human body was broken down and used for sacred purposes. In Cantona, the actions mentioned above are not mutually exclusive as skulls were also sometimes exposed to fire and some dismembered bodies also showed traces of flaying. Representations and textual accounts indicate that, in Mesoamerica, each of these actions was linked to particular celebrations or specific divinities. All of them reinforce the interplay between life, death and the cosmic order and the need for water and sunlight for agricultural fertility and the associated social stability. It is through this optic that the offerings at Cantona can best be understood, as will be seen in the following chapter.

Towards a Holistic Understanding of Cantona's Temple Pyramid Groups

During the Late Preclassic through the Middle Classic Period (150 B.C. -600/650 A.D.), the city of Cantona grew into a large regional power, covering 700 ha and housing as many as 50,000 people. During that time, the city's Acropolis expanded to include the site's most important civic and ceremonial constructions incorporating temple pyramids, plazas, platforms and ballcourts, all surrounded by elite residences on the hillsides below. Cantona was actively engaged in local and long-distance trade, bringing in agricultural goods and products from nearby settlements and exporting Zaragoza-Oyameles obsidian to distant regions, predominantly to sites in Veracruz along the Gulf Coast. During this time of cultural growth, similar changes were occurring in neighboring areas. In the central Mexican plateau, the imposing and influential city of Teotihuacán was growing into the largest Mesoamerican city of its time, importing and exporting both goods and people while spreading an architectural and representational aesthetic that was emulated as far south as Guatemala. Following a catastrophic volcanic eruption the demography of the Puebla-Tlaxcala block was shifting, likely affecting the growth of Cantona and Teotihuacán but also of Cholula whose newly found regional importance was articulated in part by the construction of the Great Pyramid. Populations within this area aligned themselves with Teotihuacán or Cholula or remained independent fortified cities, as seems to be the case with Cantona. In the Late Classic, after the fall of Teotihuacán, fortified sites such as Cacaxtla became even more numerous, where warfare was clearly depicted. In the Gulf Coast, sites such as Cerro de las Mesas and, later in the Late Classic, El Tajín, were also growing and recording events and practices using both images and text. These three regions, which were in constant interaction, were also in continued contact with the northern, western, and southern regions of Mesoamerica, creating a flow of individuals and ideas which helped create and perpetuate a commonly held Mesoamerican worldview.

8.1 Bloodletting, Sacrifice and Fertility

The concepts of bloodletting and sacrifice as a means of obtaining and maintaining fertility and cultural stability were deeply embedded in the ideology of the Late Preclassic – Middle Classic periods at Cantona. Wielding powerful symbols such as obsidian blades and conch shell trumpets, elite actors carried out sacred rituals in enclosed ceremonial precincts in which bloodletting and sacrifice played key roles. In the Temple Pyramid Groups at Cantona, these bloodletting ceremonies are frequently represented by a large number of thin prismatic blades, maguey thorns, as well as sharp stone and bone needles. These items were used throughout Mesoamerica as bloodletters – instruments used to draw blood to offer to the gods. Historical texts describe how cloth or paper was drawn through the wounds to soak up the precious liquid. The friar Gerónimo Mendieta writes that during the celebration of Camaxtil by the native inhabitants of Tlaxcala

"[...] venía un maestro bien diestro en el oficio, y horadaba las lenguas de todos los principantes ministros del demonio con aquellas navajas que tenían santificadas y puesto sobre un paño limpio, dejabanles hecho a cada uno un buen agujero [...there came a master skilled in the trade, and he pierced the tongues of the principal ministers of the Devil with the blades that had been sanctified and put on a clean cloth, leaving them each with a large, neat hole]" (1945:112-113, translation by the author).

The blood was then collected and offered to the divinity. Besides the tongue, blood was often drawn from earlobes, arms, lips and genitals, as referred to in the Southern ballcourt bas-relief from El Tajín where a supernatural perforates his penis. This act, which is carried out by a divine figure, reinforces the concept of mutual sacrifice and interdependence between the human, natural, and supernatural worlds that characterize the Mesoamerican worldview. In Cantona, small clay receptacles were commonly found in ceremonial precincts and accompanying buried individuals. These are believed to have been used to collect blood obtained through bloodletting rituals (García Cook and Merino Carrión 2005a:305).

The offering of one's own precious life liquid was coupled with acts of human sacrifice that are well documented throughout Mesoamerican history. These acts have parallels in mythology where divinities used their own blood to create the human race and gave up their own lives to set the sun in motion. According to Mauss and Hubert (2002:14), sacrifice is a religious act which modifies the state of the person conducting the sacrifice as well as that of objects of interest to that person. In order for a sacrificial act to be effective it must be conducted, even if only for the duration of the ceremony, in an area that is sacred and by individuals endowed with ritual power. In a similar general format to the one experienced by initiates in rites of passage described by Victor Turner (1969), the sacrificer and the victim go through a series of states in which they are first sanctified and prepared for the ritual. This leads up to the performance of the ceremony, at which point both the actor and the victim are at their maximum distance from the profane. The point of junction between the supernatural and human world is the offering itself which acts as the necessary element bridging the sacred and the worldly (Smith and Doniger 1989:190). At this heightened moment in the ceremony, the division between human and divine becomes blurred and the conduit that allows for communication between these two worlds is open. Finally, the ceremony is concluded with the exit of the actors from their heightened spiritualized state (Mauss and Hubert 2002:19-49); in Mesoamerica the ritual actor returns to the human world, while the remains of the sacrificial victim are discarded.

In the Mesoamerican world, offerings to divinities including human sacrifices were conducted not only to communicate with the gods but also to nourish them. In Mesoamerican ideology, death was seen as a necessary step in a natural cycle. In order to survive, human beings ate the fruits of the earth throughout their lives, and in turn, the earth fed on them after their death. Dying was understood as "being eaten by the earth" (López Austin 1984:357-358). A well-fed earth was able to provide fertile soil and abundant crops which could be harvested and used to nourish a growing population. In and of itself, however, rich soil was not enough to ensure a good harvest. Multiple factors such as sunlight and rainfall also played a crucial role in crop growth and production and rites specifically dedicated to these elements were frequently carried out.

Among the Nahua, heart sacrifice was especially associated with sun and rain worship and, in Teotihuacán, human hearts often appeared in iconography with rain-related supernaturals. Hearts and decapitated heads were among the offerings at the Temple Pyramid Groups at Cantona and also appear to be ideologically linked to agricultural fertility at this site.

The sacrifice of children is also especially related to rain. During the Aztec month of Atlcahualo (also known as Cuahuitlehua),

"[...] se mataban muchos niños. Sacrificábanlos en muchos lugares en las cumbres de los montes, sacándoles los corazones a honra de los dioses del agua para que les diesen agua o lluvia. A los niños que mataban componíanlos con ricos atavíos para llevarlos a matar, y llevábanlos en unas litras sobre los hombros, y las literas iban adornadas con plumajes v con flores. Iban tañendo, cantando v bailando delante de ellos. Cuando llevaban a los niños matar, si lloraban y echaban muchas lágrimas, alegrábanse los que los llevaban, porque tomaban prognóstico de que habían a tener muchas aguas este año. [...many children were killed. They sacrificed them in many places on the summit of mountains, extracting their hearts in honor of the gods of rain so they would give them water or rain. The children who were killed were dressed in great finery when brought to their death, and they brought them on litters on their shoulders, and the litters were adorned with feathers and flowers. They went playing instruments, singing and dancing in front of them. When they brought the children to be killed, if they cried or shed many tears, those that were bringing them rejoiced because they took it as an omen that they would have a lot of water this year]" (Sahagún 1989:2:81, translation by the author).

The multiple children's burials containing dismembered and burnt bodies at Cacaxtla was also interpreted by Delgadillo Torres and Santana Sandoval (1995:69) as being offerings to the divinities of water. The dismembered and burnt burials at Cantona, which often contain the bones of children or young adults, were also likely to have been offerings to the god of rain. Among the few iconographic representations found at Cantona is a Tlaloc-style effigy vessel as well as images on stone slabs representing the sun or ducks. Ducks were associated with Ehecatl, the duck-billed Aztec deity of the wind, who was one of the many representations of Quetzalcoatl. The same association of ducks with wind and water was likely to have existed in Cantona. The much earlier Tuxtla Statuette shows a priest adorned in a duck costume and wearing a bill, indicating duck

supernaturals were already present in the pantheon of deities being worshipped during the Late Formative and Classic Period. These items suggest that deities of the sun, wind and water worshipped throughout Mesoamerica were also venerated in Cantona, and the sacrifices and rituals carried out in the ceremonial precinct of the city were most likely dedicated to these important supernaturals whose participation was needed for an abundant harvest. The existence of a fertility cult in Cantona is attested to with the presence of the nine phallic sculptures discovered in the Central Plaza. Representations of phalluses are also known to have existed in the Huasteca region of Veracruz and are associated with both human and natural regeneration.

In addition to decapitation, dismemberment, and heart extraction it appears through iconography at El Tajín and Cacaxtla that ritual disembowelment was also linked to fertility and agricultural well being. In the depictions from both these sites, intestines of victims, whether in a battle field or in a ceremonial complex, are likened to young maize plants and in El Tajín, a sacrificed individual's bowels are draped over a scaffold on which maize grows. A similar association may have also existed in Cantona where, as it has been seen, human sacrifices involved the taking apart of human bodies, including the removal of organs such as the heart. Evidence indicates that another practice in Cantona included removing the skin from the face and scalp (if not from the entire body), a ritual affiliated with Xipte Tótec and springtime regeneration.

It appears therefore that the ceremonies conducted at the summit of the temple pyramids were to foster deity communication and fertility, especially the obtainment of water necessary for plentiful harvests. Unlike the mass sacrifices discovered at Teotihuacán's Feathered Serpent Pyramid and in front of the Battle Mural in Cacaxtla, which have been interpreted as remnants of single, large, dedicatory events, the differing burial depths and lack of clear spatial organization or patterning among the human remains at Cantona tell of rituals that were less grandiose than other large-scale sacrifices but that were more constant and repeated over time. Although the exact dates are difficult to determine, the finds at Cantona's Temple Pyramid Groups show a steady use of the structures over a period of approximately five hundred years. During that time, repeated acts of bloodletting and sacrifice, as part of a vital fertility cult, were enacted in these

sacred precincts which would also serve as tombs for the priests who acted, and perhaps even lived, in them. Similar to those from Teotihuacán and Cholula, the leaders from Cantona remain anonymous and it is possible the site was governed by a council or by select leading families rather than by one central figurehead. Elite members of Cantona's ruling class controlled the access to Temple Pyramid Groups and civic and ceremonial areas such as the Acropolis. In these secretive spaces, they enacted sacred rites aimed at maintaining the community's prosperity.

8.2 The Temple Pyramid Groups

The civic and ceremonial structures that filled Cantona's Acropolis and existed on other elevated points throughout the city were sacred locales where elite actors conducted ceremonies dedicated to sustaining the social order and the group's wellbeing. Chapters 2 and 3 of this work describe the layout and location of temple pyramids and their associated structures at Cantona. Chapters 4, 5 and 6 mention how temple pyramids were conceptually linked to mountains and sources of fertility in Teotihuacán, Puebla-Tlaxcala and in the Gulf Coast. This belief also extended to the Maya region and in each of these areas, temple pyramids appear to have been associated with a source of water as well as (in certain cases) a cave. As of yet there is no direct link between Cantona's temple pyramids and caves or sources of water although the sacred aura that existed around these constructions is evident. In Cantona, temple pyramids and religious complexes were constructed on elevated topographic points, the Acropolis being the highest area of the site. From the summit of any of these temple pyramids one had a wide view of the city, malpais and farmland that stretched below. From these vantage points one can also track the movement of storm clouds and rain as circular wind patterns move them across the area (Figure 42). This feature may have been especially valuable when considering that many of the rituals which were conducted at the summit of temple pyramids were performed to obtain rain and water.

Despite their prominent location, access to the temple pyramids and the ceremonial complexes was restricted by checkpoints and narrow streets prohibiting the massive inflow of people into any one structure at anytime. In the Acropolis, the streets

causeways and were also designed for secrecy – where streets were raised or followed the ground level elsewhere in the site, the walkways in the Acropolis were sunken and bordered by high walls, obscuring walkers from view but also restricting visibility civic into the and



Figure 42. View of Cantona site ruins, *malpaís*, and surrounding area with the Pico de Orizaba in the background from the Acropolis. (*Photograph: author*).

ceremonial building complexes (Martinez Calleja 2004:136). The marked dominance of noted structures such as Cholula's Great Pyramid or Teotihuacán's Pyramid of the Sun, Moon or Feathered Serpent Pyramid does not seem to have been as prevalent in Cantona where no single structure in the Acropolis stood out prominently above the rest. In their totality, however, the ceremonial complexes and temple pyramids seem to have been recognized as structures worthy of respect. After Cantona's *coup d'état* and the society's move towards a more militarized state, the temple pyramids, symbols of the previous regime's political and religious authority, were not destroyed nor razed. In certain cases, the staircases seem to have been dismantled but even in these cases, the structures themselves remained standing. Despite the city's rapid growth, the pyramid complexes' construction material was not recycled into other building projects and a level of respect towards them seems to have been maintained (García Cook, personal communication).

Through their continued use during the Late Preclassic and Classic Periods as sacred precincts where valuable religious ceremonies were practiced and important dead were ritually buried, Cantona's temple pyramids and associated structures accrued a valuable position within the social memory of the city's inhabitants. Social memory associated with specific locations is "defined and maintained through action [whereby...] spatial landscape and the shared ritual experience become the basis for collective

memory that transcends personal memories" (Cannon 2002:192). This collective feeling towards the Acropolis ceremonial constructions as sacred places may have lived on past their moment of use, as happened with the Great Pyramid of Cholula where, even abandoned and overgrown, the construction maintained its aura of sacredness. Ballcourts were also located within the civic and ceremonial center – in the Gulf Coast, these constructions served as portals connecting the worldly and supernatural world (Taladoire 2000:27). The sense of ritual space associated with these constructions may have transcended their boundaries and contributed to the atmosphere of power and sanctity that surrounded the elite civic and ceremonial constructions. A number of the Acropolis' structures continued to be used well into the Late Classic Period and leading up to the decline of Cantona as a major population center. It is possible that the new rulers of the site sought to transfer some of the inherent power of Cantona's sacred temple pyramid precincts to themselves by utilizing the same buildings, although the data remain inconclusive. Nonetheless, during the Late Preclassic and Early/Middle Classic Periods it can be seen that the temple pyramids at Cantona were elite structures imbued with a sense of sacredness. Although it is still unknown whether water or springs ran beneath or near the temple pyramids, the ceremonies that were conducted there and in associated constructions were dedicated to water and fertility rites conjuring the very same rainstorms whose motions can be observed from the pyramid summits.

8. 3 Final Thoughts and Future Investigation

From the data available, it can be determined that the social practices conducted within the Temple Pyramid Groups at Cantona were dedicated to maintaining fertility and the existing social order. The rituals were likely conducted by elite members who had access to the temple pyramids, plazas and ballcourts of the civic and ceremonial areas of the site. The artifacts obtained from archaeological investigation at Cantona, especially the pottery sherds, are morphologically similar to the Tenanyecac objects from Puebla-Tlaxcala, with other items bearing resemblance to Gulf Coast ware. Cantona's architecture, however, is greatly different from that observed in the symmetrical, stucco-covered and brightly painted monuments from Tenanyecac or the influential

Teotihuacán. The discoveries at Cantona appear to contradict the notion that all Mesoamerican groups were working to emulate the style coming out of the great central city of Teotihuacán – a style that did in fact greatly influence a number of areas abroad. Although Cantona and Teotihuacán would have clearly known about each other as they shared the same exchange corridor with the Gulf Coast, it seems that in this case that geographical proximity did not correlate directly with architectural similarity. It appears that rather than copy Teotihuacán style, the inhabitants of Cantona were doing just the opposite – distancing themselves from the large central city. Indeed, evidence indicates that Cantona shared many more characteristics with the Gulf Coast, which was, after all, an important trading partner.

This study has focused on the human remains located within the civic and ceremonial constructions from the Late Preclassic to Middle Classic era in Cantona. In order to better understand these remains within the community's view of death and of the human body, a study of domestic burials and household ritual practice at Cantona would provide points of comparison between elite ceremonial actions and common practices. Data on body positioning, orientation, location, offerings and treatment would enable future insight onto how common inhabitants of the city understood life and death and how their views fit in (or did not fit in) with that represented by the temple pyramid finds.

The research here also focuses on the temple pyramids and structures located within the Acropolis. The city, however, contained a large number of secondary temple pyramids and plazas throughout its expanse, presumably of less importance than those located in the Acropolis. A study of the finds in these locations would also provide valuable information as to the ways in which the dominant Cantona ideology was applied in various areas and among various demographics throughout the city.

Despite the differences that may or may not have existed between social groups within Cantona, rain, the essential element, elusive and unpredictable, was required for the survival of the community. Those who could establish contact with the forces who controlled it, and could then conjure it, were among the most powerful of the society.

These religious figures were so linked to the temple pyramids where they performed their acts that they were often buried there after their death. Through acts of ritual decapitation, dismemberment, defleshing, flaying and human consumption, these individuals were able to maintain the covenant with the gods and ensure agricultural fertility for the society in which they lived.

Works Cited

Acosta, Jorge R.

1970a Sección 3. In *Proyecto Cholula*. Ignacio Marquina, ed. pp. 47-55. Serie Investigaciones No. 19, INAH, Mexico.

1970b Patio Sureste. In *Proyecto Cholula*. Ignacio Marquina, ed. pp. 57-66. Serie Investigaciones No. 19, INAH, Mexico.

Aveni, Anthony F., Horst Hartung, and Beth Buckingham

1978 The Pecked Cross Symbol in Ancient Mesoamerica. *Science* 202:267-279.

Baird, Ellen T.

Estrellas y guerra en Cacaxtla. In *Antología de Cacaxtla, vol. 2*. Ángel García Cook and Beatriz Leonor Merino Carrión, eds. Lorena Mirambell Silvia, cord. pp. 140-190. INAH, Mexico.

Bell, Catherine

1997 Ritual Theory, Ritual Practice. University of Chicago Press, Chicago.

Berlo, Janet Catherine

1992 Icons and Ideologies at Teotihuacán: The Great Goddess Reconsidered. In *Art, Ideology and the City of Teotihuacán*. J.C. Berlo, ed. pp. 129-169. Dumbarton Oaks, Washington, D.C.

Bourdieu, Pierre

1994 Raisons Pratiques: Sur la théorie de l'action. Éditions du Seuil, Paris.

1980 Le sens pratique. Editions de Minuit, Paris.

Bradley, Douglas E.

1997 Life, Death and Duality: A Handbook of the Rev. Edmund P. Joyce, C.S.C. Collection of Ritual Ballgame Sculpture. Snite Museum of Art Bulletin, University of Notre Dame, South Bend.

Buikstra, Jane E. And Mark Swagle

Bone Modification Due to Burning: Experimental Evidence. In *Bone Modification*, Robeson Bonnichsen and Marcella H. Sorg, eds. pp. 247-258. Center for the Study of the First Americans, University of Maine, Orono.

Cabrera Castro, Rubén and Saburo Sugiyama

Fouilles de la Pyramide de la Lune. In *Teotihuacán: Cité des Dieux*. Felipe Solís, General Commissioner. pp. 59-67. Musée de quai Branly and Somogy Éditions d'Art, Paris.

Cannon, Aubrey

Spatial Narratives of Death, Memory and Transcendence. *Archaeological Papers of the American Anthropological Association* 11:191-199.

Carballo, David M. and Thomas Pluckhahn

Transportation corridors and political evolution in highland Mesoamerica: Settlement analyses incorporating GIS for northern Tlaxcala, Mexico. *Journal of Anthropological Archaeology* 26:607-629.

Chávez Balderas, Ximena

2007 Rituales funerarios en el Templo Mayor de Tenochtitlan. INAH, Mexico, D.F.

Comaroff, Jean and John Comaroff

1991 Of Revelation and Revolution: Christianity, Colonialism and Consciousness in South Africa. University of Chicago Press, Chicago.

Cowgill, George L.

2001 Clásico Temprano (150/20-600d.C.). Arqueología Mexicana 47: 20-27.

Daneels, Annick

Ball Courts and Politics in the Lower Cotaxtla Valley: A Model to Understand Classic Central Veracruz? In *Classic Period Cultural Currents in Southern and Central Veracruz*. Philip J. Arnold III and Christopher A. Pool, eds. pp. 197-223. Dumbarton Oaks, Washington D.C.

Dehouve, Danièle and Anne-Marie Vié-Woher

2008 Le Monde des Aztèques. Riveneuve, Paris.

Delgadillo Torres Rosalba and Andrés Santana Sandoval

1995 Los enterramientos humanos de Cacaxtla, Tlaxcala. In *Antología de Cacaxtla, vol. 2.* Ángel García Cook and Beatriz Leonor Merino Carrión, eds. Lorena Mirambell Silvia, cord. pp. 56-77. INAH, Mexico

Diehl, Richard A.

2004 *The Olmecs: America's First Civilization.* Thames and Hudson, London.

Duverger, Christian

1999 La Méso-Amérique : Art et Anthropologie. Flammarion, Paris.

Ekholm, Gordon F.

Diffusion and Archaeological Evidence. In *Man across the Sea: Problems in Pre-Columbian Contacts*. Carroll R. Riley, J. Charles Kelley, Campbell W. Pennington, Robert L. Rands, eds. pp 54-59. University of Texas Press, Austin.

Ekholm, Susana M.

1991 Ceramic Figurines and the Mesoamerican Ballgame. Dans *The Mesoamerican Ballgame*, Vernon L. Scarborough et David R. Wilcox, eds. pp 241-249. University of Arizona Press, Tucson.

Foncerrada de Molina, Marta

1995a La pintura mural en Cacaxtla. In *Antología de Cacaxtla, vol. 1*. Ángel García Cook and Beatriz Leonor Merino Carrión, eds. Lorena Mirambell Silvia, cord. pp. 285-304. INAH, Mexico

1995b Pintura mural en Cacaxtla y cosmopolitismo Teotihuacáno. In *Antología de Cacaxtla, vol. 1.* Ángel García Cook and Beatriz Leonor Merino Carrión, eds. Lorena Mirambell Silvia, cord. pp. 305-338. INAH, Mexico.

García Cook, Ángel

2009 El formativo en la mitad norte de la Cuenca de Oriental. *Arqueología* 40: 115-150.

2004 Cantona: ubicación temporal y generalidades. Arqueología 33: 91-108.

2003 Cantona: The City. *Urbanism in Mesoamerica/El Urbanismo en Mesoamérica*. William T. Sanders, Alba Guadalupe Mastache and Robert H. Cobean, eds. pp.311-343. INAH and The Pennsylvania State University, Mexico D.F. and University Park.

1995 Cruce de caminos: Desarrollo histórico de la región poblano-tlaxcalteca. *Arqueología Mexicana* 13:12-17.

- The Historical Importance of Tlaxcala in the Cultural Development of the Central Highlands. In *Supplement to the Handbook of Middle American Indians, vol. 1, Archaeology*. Jeremy A. Sabloff, ed. pp 244-276. University of Texas Press, Austin.
- ---- and Beatriz Leonor Merino Carrión
 - 2005a Sobre tres elementos líticos con carácter ritual: navajas de autosacrificio, navajas con cresta y cortadores o *tranchet*. In *Reflexiones sobre la industria lítica*. Leticia Gonzáles Arratia and Lorena Mirambell, coords. pp. 299-323. INAH, Mexico.
 - 2005b La cerámica del Formativo en Puebla-Tlaxcala. In *La Producción alfarera en el México Antiguo*. Beatriz Leonor Merino Carrión and Ángel García Cook, coords. pp. 575-649. INAH, Mexico.
 - 1998 Cantona: Urbe Prehispánica en el Altiplano Central de México. *Latin American Antiquity* 9: 191-216.
 - 1997 Proyecto Arqueológico Cantona: Informe de la segunda temporada de campo, noviembre 1996 a febrero de 1997. Archivo Técnico de la Coordinación Nacional de Arqueología, INAH, Mexico.
 - 1996a Investigación arqueología en Cantona, Puebla. Arqueología 15: 55-78.
 - 1996b *Proyecto Arqueológico Cantona: Informe General, 1993-1996.* Archivo Técnico de la Coordinación Nacional de Arqueología. INAH, Mexico.
- ---- and Yadira Martínez Calleja
 - 2008 Las vías de circulación interna en Cantona. Arqueología 38: 125-160.
- ----, Yadira Martínez Calleja and Mónica Zamora Rivera
 - 2005 Proyecto Arqueológico Cantona y del Norte de la Cuenca de Oriental: "Informe de los trabajos en campo llevados a cabo en la temporada 2004". Archivo Técnico de la Coordinación Nacional de Antropología, INAH, Mexico.
- Geertz, Clifford
 - 1974 "From the Native's Point of View": On the Nature of Anthropological Understanding. *Bulletin of the American Academy of Arts and Sciences* 28:26-45.
 - 1973 The Interpretation of Cultures. Basic Books, New York.
- Giddens, Anthony
 - 1979 Central Problems in Social Theory: Action, Structure and Contradiction in Social Analysis. University of California Press, Berkeley.
- Gillespie, Susan D.
 - 1991 Ballgames and Boundaries. In *The Mesoamerican Ballgame*. Vernon L. Scarborough and David R. Wilcox, eds. pp. 317-345. The University of Arizona Press, Tucson.
- Guillon, François
 - 1986 Brûlés frais ou brûlés secs? In *Anthropologie physique et Archéologie: Méthodes d'études des sépultures.* H. Duday and J. Masset, eds. pp. 191-193. CNRS, Paris.
- Headrick. Annabeth
 - Butterfly War at Teotihuacán. In *Ancient Mesoamerican Warfare*. M. Kathryn Brown, Travis W. Stanton, eds. pp. 149-170. Altamira Press, New York.

Hertzfeld, Michael

1997 *Cultural Intimacy*. Routledge, New York.

Hirth, Kenneth G.

2006 Obsidian Craft Production in Ancient Central Mexico: Archaeological Research at Xochicalco. The University of Utah Press, Salt Lake City.

2001 El Intercambio. In *Historia Antigua de México, Vol. IV: Aspectos fundamentales de la tradición cultural mesoamericana*. Linda Manzanilla and Leonardo López Luján, eds. pp. 97-143. INAH, Mexico.

Hodder, Ian and Scott Hutson

2003 Reading the Past: Current Approaches to Interpretation in Archaeology, third addition. Cambridge University Press, Cambridge.

Iguaz, David

Mortuary practices among the Aztec in the light of ethnohistorical and archaeological sources. *Papers from the Institute of Archaeology* 4:63-76.

Jiménez Ovando, Roberto

1995 Entierros humanos prehispánicos en la zona arqueológica de Cacaxtla, Tlaxcala. In *Antología de Cacaxtla, vol. 2*. Ángel García Cook and Beatriz Leonor Merino Carrión, eds. Lorena Mirambell Silvia, cord. pp. 122-139. INAH, Mexico.

Justeson, John and Terrence Kaufman

The Epi-Olmec Tradition at Cerro de las Mesas in the Classic Period. In *Classic Period Cultural Currents in Southern and Central Veracruz*. Philip J. Arnold III and Christopher A. Pool, eds. pp. 159-194. Dumbarton Oaks, Washington D.C.

Kampen, M.E.

1978 Classic Veracruz Grotesques and Sacrificial Iconography. *Man (New Series)* 13:116-126.

Knapp, Bernard A.

1988 Ideology, Archaeology and Polity. *Man, New Series* 23:133-163.

Knight, Charles L.F. and Michael D. Glascock

The Terminal Formative to Classic Period Obsidian Assemblage at Palo Errado, Veracruz, Mexico. *Latin American Antiquity* 20:507-524.

Kroeber, A.L.

1948 Anthropology. Harcourt, Brace.

Kubler, George

1995 Eclecticismo en Cacaxtla. In *Antología de Cacaxtla, vol. 1*. Ángel García Cook and Beatriz Leonor Merino Carrión, eds. Lorena Mirambell Silvia, cord. pp. 339-359. INAH, Mexico.

Ladrón de Guevara, Sara

2000 El juego de pelota en El Tajín. *Arqueología Mexicana* 8:36-40.

Lagunas Rodríguez, Zaid and Patricia Hernández Espinoza

2007 Manual de Osteología. INAH/ENAH, Mexico.

Lira López, Yamile de la Cruz

1982 Un Estudio Estratigráfico en el Sitio Arqueológico de Calahuite, Veracruz: TESIS que presenta para obtener el grado de Licenciada en la Carrera de

Antropología con especialidad en Arqueología. Universidad Veracruzana, Xalapa.

Lombardo de Ruiz, Sonia

1995 Las pinturas de Cacaxtla. In *Antología de Cacaxtla, vol. 2*. Ángel García Cook and Beatriz Leonor Merino Carrión, eds. Lorena Mirambell Silvia, cord. pp. 94-121. INAH, Mexico.

López Alonso, Sergio, Zaid Lagunas Rodríguez and Carlos Serrano Sánchez

2002 Costumbres funerarias y sacrificio humano en Cholula prehispánica. UNAM, Mexico.

1970 Sección de Antropología Física. In *Proyecto Cholula*. Ignacio Marquina, ed. pp. 143-152. Serie Investigaciones No. 19, INAH, Mexico.

López Austin, Alfredo

1984 Cuerpo humano e ideología: Las concepciones de los antiguos nahuas, vol.1 UNAM, Mexico.

Manzanilla, Linda

2001 La zona del Altiplano central en el Clásico. In *Historia Antigua de México, vol. 2: El horizonte Clásico*. Linda Manzanilla and Leonardo López Luján, coords. pp. 203-239. Miguel Ángel Porrúa, Mexico.

Martínez Calleja, Yadira

Proyecto Arqueológico Cantona y del Norte de la Cuenca de Oriental y Proyecto Especial Cantona: Informe técnico de los trabajos realizados durante la temporada de campo Agosto de 2008 a marzo de 2009. Annex 5 of the *Proyecto Arqueológico Cantona y del Norte de la Cuenca de Oriental, Informe de la temporada de campo 2008.* Archivo Técnico de la Coordinación Nacional de Arqueología, INAH, Mexico.

2004 Cantona: avances et resultados en el estudio de su patrón de asentamiento. *Arqueología* 33: 125-138.

Marquina, Ignacio

1970 Pirámide de Cholula. In *Proyecto Cholula*. Ignacio Marquina, ed. pp. 31-46. Serie Investigaciones No. 19, INAH, Mexico.

Matos Moctezuma, Eduardo

2001 Mesoamérica. In *Historia Antigua de México, vol. 1: El México antiguo, sus áreas culturales, los orígenes y el horizonte Preclásico*. Linda Manzanilla and Leonardo López Luján, eds. pp. 94-119. INAH, Mexico.

2000 From Teotihuacán to Tenochtitlan: Their Great Pyramids. Scott Sessions, trans. In *Mesoamerica's Classic Heritage: From Teotihuacán to Aztecs*. Davíd Carrasco, Lindsey Jones and Scott Sessions, eds. pp. 185-194. University of Colorado, Boulder.

1990 Teotihuacán: The City of the Gods. Andrew Ellis, trans. Rizzoli, New York.

Mauss, Marcel and Herni Hubert

2002[1899] Essai sur la nature et la fonction du sacrifice. Electronic copy by Jean-Marie Tremblay, Cégep de Chicoutimi. http://classiques.uqac.ca/classiques/mauss_marcel/melanges_hist_religions/t2_sacrifice/sacrifice.html. Consulted April 2010.

McCafferty, Geoffrey G.

Reinterpreting the Great Pyramid of Cholula, Mexico. *Ancient Mesoamerica* 7:1-17.

McVicker, Donald

2007 Images of Violence in Mesoamerican Mural Art. In *Latin American Indigenous Warfare and Ritual Violence*. Richard J. Chacon and Rubén G. Mendoza, eds. pp. 73-90. University of Arizona Press, Tucson.

Medina Martín, Cecilia and Mirna Sánchez Vargas

2007 Posthumous Body Treatments and Ritual Meaning in the Classic Period Northern Petén: A Taphonomic Approach. In *New Perspectives on Human Sacrifice and Ritual Body Treatments in Ancient Maya Society*. Vera Tiesler and Andrea Cucina, eds. pp. 102-119. Springer, New York.

Mendieta, fray Gerónimo

1945 Historia eclesiástica indiana. Editorial Salvador Chávez Hayhoe, Mexico.

Merino Carrión, Leonor Beatriz and Ángel García Cook

2007 La alfarería en Cantona del 500 al 1000 de nuestra era. In *La producción alfarera en el México antiguo, IV*. Leonor B. Merino Carrión and Ángel García Cook, coords. pp. 113-164. INAH, Mexico.

Meskell, Lynn

1999 Archaeologies of Social Life. Blackwell Publishers, Malden.

Miller, Virginia E.

Skeletons, Skulls and Bones in the Art of Chichén Itzá. In *New Perspectives* on *Human Sacrifice and Ritual Body Treatments in Ancient Maya Society*. Vera Tiesler and Andrea Cucina, eds. pp. 165-189. Springer, New York.

Molina Feal, Daniel

1995 Consideraciones sobre la cronología de Cacaxtla. In *Antología de Cacaxtla, vol. 1.* Ángel García Cook and Beatriz Leonor Merino Carrión, eds. Lorena Mirambell Silvia, cord. pp. 174-179. INAH, Mexico.

Morales Vigil, Érica

2004 Los orígenes de Cantona: pintura rupestre en el Cerro de las Águilas. Arqueología 33: 109-124.

Muller, Florencia

1972 Estudio iconográfico del mural de los bebedores, Cholula, Puebla. In *Religión en Mesoamerica*. Jamie Litvak King and Noemi Castillo Tejero, eds. Pp. 141-146. Sociedad Mexicana de Antropología, Mexico.

Nagao, Debra

Public Proclamation in the Art of Cacaxtla and Xochicalco. Dans *Mesoamerica* after the Decline of Teotihuacán, A.D. 700-900. Richard A. Diehl and Janet Catherine Berlo, eds. pp. 83-104. Dumbarton Oaks, Washington D.C.

Nalda, Enrique

1998 El reajuste mesoamericano. *Arqueología Mexicana* 32:32-41.

Nuttall, Zelia

1983[1903] The Book of Life of the ancient Mexicans containing an account of their rites and superstitions...part 1. xiv + 79 leaves of reproductions [unnumbered leaf and leaves 3-80]. University of California, Berkeley.

Ojeda Díaz, María de los Ángeles

1989 Ritual de desmembramiento humano en Cholula prehispánica. *Notas Mesoamericanas* 11:56-63.

Ortiz, Ponciano, María del Carmen Rodríguez, and David Morales

2010 Les gens de Teotihuacán sur la côte du Golfe: Matacapan comme exemple d'enclave. In *Teotihuacán: Cité des Dieux*. Felipe Solís, General Commissioner. pp. 169-179. Musée de quai Branly and Somogy Éditions d'Art, Paris.

Pasztory, Esther

Teotihuacán Unmasked: A View Through Art. In *Teotihuacán: Art from the City of the Gods*. Kathleen Berrin and Esther Pasztory, eds. pp. 45-63. Thames and Hudson, New York.

Proskouiakoff, Tatiana

1974 Jades from the Cenote of Sacrifice, Chichen Itza, Yucatan. Peabody Museum of Archaeology and Ethnology, Harvard University, Cambridge.

Rattray, Evelyn Childs

1997 Entierros y ofrendas en Teotihuacán: Excavaciones, inventario, patrones mortuorios. Instituto de Investigaciones Antropológicas, UNAM, Mexico.

Reilly III, F. Kent, and James F. Garber

The Symbolic Representation of Warfare in Formative Period Mesoamerica. In *Ancient Mesoamerican Warfare*. M. Kathryn Brown, Travis W. Stanton, eds. pp. 127-148. Altamira Press, New York.

Reyna Robles, Rosa María

1971 Las Figurillas Preclásicas. Tesis. ENAH, Mexico.

Rose, Jean

2007 La Légende des Soleils: Mythes aztèques des origines. Jean Rose, trans. Anacharsis. Toulouse.

Sahagún, Fray Bernardino de

1989 *Historia General de las cosas de Nueva España*. Introduction, palaeography, glossary and notes by Alfredo López Austin and Josefina García Quintana. Alianza Editorial, Mexico.

1951 Florentine Codex: Book 2, The Ceremonies. Arthur J.O. Anderson and Charles E. Dibble, trans., notes, and illustrations. The School of American Research and The University of Utah, Santa Fe.

Saunders, Nicholas J.

A dark light: reflections on obsidian in Mesoamerica. *World Archaeology* 33:220-236.

Schele, Linda and David Freidel

1990 A Forest of Kings: The Untold Story of the Ancient Maya. Harper, Toronto.

Serra Puche, Mari Carmen

The Concept of Feminine Places in Mesoamerica: The Case of Xochitécatl, Tlaxcala, Mexico. In *Gender in Pre-Hispanic America: a symposium at Dumbarton Oaks, 12 and 13 October 1996*. Cecilia F. Klein, ed. pp.255-284. Dumbarton Oaks, Washington D.C.

Sheets, Payson D.

2003 Warfare in Ancient Mesoamerica: A Summary Review. In *Ancient Mesoamerican Warfare*. M. Kathryn Brown and Travis W. Stanton, eds. pp. 287-302. Altamira Press, New York.

Smith, Brian K. And Wendy Doniger

1989 Sacrifice and Substitution: Ritual Mystification and Mythical Demystification. *Numen* 36:189-224.

Smith, Michael E. And Lisa Montiel

The Archaeological Study of Empires and Imperialism in Pre-Hispanic Central Mexico. *Journal of Anthropological Archaeology* 20: 245-284.

Solanes Carraro, María del Carmen

1995 Cholula. Arqueología Mexicana 13:24-30.

Stark, Barbra L., Lynette Heller, Michael D. Glascock, J. Michael Elam and Hector Neff
1992 Obsidian-Artifact Source Analysis for the Mixtequilla Region, South-Central
Veracruz, Mexico. *Latin American Antiquity* 3: 221-239.

Sugiyama, Saburo

2005 Human Sacrifice, Militarism, and Rulership: Materialization of State Ideology at the Feathered Serpent Pyramid, Teotihuacán. Cambridge University Press, Cambridge.

Rulership, Warfare, and Human Sacrifice at the Ciudadela: An Iconographic Study of the Feathered Serpent Pyramid. In *Art, Ideology and the City of Teotihuacán*. J.C. Berlo, ed. pp. 205-230. Dumbarton Oaks, Washington, D.C.

Taladoire, Eric

2000 El juego de pelota mesoamericano: Origen y desarrollo. *Arqueología Mesoamericana* 8:19-27.

Talavera, Jorge, Juan Martín Rojas and Enrique García

2001 Modificaciones culturales en los restos óseos de Cantona, Puebla: un análisis bioarqueológico. Colección Científica. INAH, Mexico.

Taube, Karl

The Turquoise Hearth: Fire, Self Sacrifice, and the Central Mexican Cult of War. In *Mesoamerica's Classic Heritage: From Teotihuacán to the Aztecs*. Davíd Carrasco, Lindsey Jones and Scott Sessions, eds. pp. 269-340. University Press of Colorado, Boulder.

1993 Aztec and Maya Myths. British Museum Press and The University of Texas, Austin.

Tilley, Christopher

Interpreting Material Culture. In *The Meaning of Things: Material Culture and Symbolic Expression*. Ian Hodder, ed. pp 185-194. Unwin Hyman, London.

Turner, Victor

1969 The Ritual Process: Structure and Anti-structure. Aldine, Chicago.

Uriarte, María Teresa

2010 La peinture murale à Teotihuacán. In *Teotihuacán: Cité des Dieux*. Felipe Solís, General Commissioner. pp. 119-125. Musée de quai Branly and Somogy Éditions d'Art. Paris.

2000 Mariposas, sapos, jaguares y estrellas: Práctica y símbolos del juego de pelota. *Arqueología Mexicana* 8:28-35.

- Uruñuela y Ladrón de Guevara, Gabriela, Patricia Plunket Nagoda and Amparo Robles Salmerón
 - Cholula: Art and Architecture of an Archetypal City. In *The Art of Urbanism: How Mesoamerican Kingdoms Represented Themselves in Architecture and Imagery*. William L. Fash and Leonardo López Luján, eds. pp. 133-171. Dumbarton Oaks, Washington D.C.

Vallin Magaña, Rodolfo

1972 Una posible interpretación del mural de los Bebedores de Pulque de Cholula, Puebla. In *Religión en Mesoamerica*. Jamie Litvak King and Noemi Castillo Tejero, eds. Pp. 147-149. Sociedad Mexicana de Antropología, Mexico.

von Winning, Hasso

- 1987 La iconografía en Teotihuacán: los dioses y los signos, vol.1. UNAM, Mexico. Weber, Max
 - 1968 Economy and Society: An Outline of Interpretive Sociology, Guenther Roth et Claus Wittich, eds. Bedminster Press, New York.

Wheeler Smith, Linda

2001 Human Skeletal Material. In *Classic Period Mixtequilla, Veracruz, Mexico: Diachronic Inferences from Residential Investigations*. Barbra L. Stark, ed. pp. 247-252. Institute for Mesoamerican Studies, University at Albany, Albany.

Wilkerson, S. Jeffrey K.

- And Then They Were Sacrificed: The Ritual Ballgame of Northeastern Mesoamerica Through Time and Space. In *The Mesoamerican Ballgame*, Vernon L. Scarborough et David R. Wilcox, eds. pp 45-71. University of Arizona Press, Tucson.
- In Search of the Mountain of Foam: Human Sacrifice in Eastern Mesoamerica. In *Ritual Human Sacrifice in Mesoamerica*. Elizabeth P. Benson, org., Elizabeth H. Boone, ed. pp. 101-133. Dumbarton Oaks, Washington D.C.

Willey, Cherra

2008 Continuity and Change in Late Classic Southern Veracruz Art, Hieroglyphs, and Religion. In *Classic Period Cultural Currents in Southern and Central Veracruz*. Philip J. Arnold III, and Christopher A. Pool, eds. pp. 225-257. Dumbarton Oaks, Washington, D.C.