Contexts of offerings and ritual maize in the pictographic record in Central Mexico

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The objective of this article is an initial enquiry into the evidence and classification of the offerings of maize in Central Mexico from the Classic period to early colonial times. In order to achieve this goal, we will analyse the presence of maize in Central Mexico according to the evidence found in mural paintings and some pictographic codices. Two Mesoamerican cultures will be considered to achieve our analysis: the Teotihuacan and Mexico-Tenochtitlan. Maize was instrumental in the performance of daily rituals and in the diet of these ancient Mesoamerican cultures and the cereal also had sacred connotations in pre-Hispanic, colonial and contemporary narratives. We suggest this by reading the iconographic and symbolic representations of corn in the form of seeds and pods, or as an ingredient in cooked foods which are represented in the mural paintings of Teotihuacan as well as some codices of the post-Classic Nahua tradition. These methodological enquiries reveal evidence of a cultural continuity in Central Mexico as a contrasting perspective on the archaeological and ethno-historical period.

Introductory remarks

In 1943, Paul Kirchhoff coined the term 'Mesoamerica' as a cultural concept to refer to the development of complex societies (Kirchhoff 1943, Flannery 1968) in the region. This concept defines a variable geographical area but also emphasizes the cultural traits that were shared by a number of different indigenous cultures. The geographical area covers Mexico to Belize, Guatemala, El Salvador, Honduras, Nicaragua, and northern Costa Rica. In this area different cultures had in common a basic point of view about how they understood their physical and supernatural world. This period started with the beginning of complex societies, and involved processes of social stratification but also the development of a very highly structured system of religious beliefs. The development of large ceremonial centres and cities marked the design of an intricate network of trade routes for the exchange of luxury goods, such as obsidian, greenstones, cacao, cinnabar, Spondylus shells, haematite, and ceramics. These goods were used by the elite to legitimate their power in various ways. For the

Mesoamerican cultures, offerings were one of the main systems of communication between men and gods. By means of offerings, the Mesoamericans gave to the gods their most prized possessions. In return, the gods granted their requests for rain, crops, or conquest of new lands, tributes and slaves and so on. Men and gods were bound by this exchange, and it was regulated by the priests. This is why it is important to recognize the goods involved in the offerings because every offering had its own god and its own purpose.

Maize has been identified as a staple food for sustaining large populations. Archaeologists have made investigations into how and when maize was first domesticated (Staller *et al.* 2006). Archaeologists and historians are also interested in the use of maize in religious and ritual contexts. Maize always needs human intervention in order to reproduce itself. This results in an interesting relationship between men and maize from archaic times. We can consider that humankind and maize have been bound by magical ties from the beginning of its process of domestication. However, it is not an easy area to study. Studying past societies is complicated because the preservation of the remains is not homogeneous.² It is difficult to determine the presence or absence of maize in ancient societies in archaeological and pictographic records.

In this article, we want to study the representations of maize as ritual food in two of the most representative cultures of the Valley of Mexico: the Teotihuacan (200 BC-650 AD) and the Mexicas (1325-1521). For this purpose, we will study the representations of maize as ritual food in mural paintings (of the Teotihuacans) and pictographic records (of the Mexicas).

The archaeological/historical context: the classic culture of Teotihuacan (200 BC-650 AD) and the Post-Classic period in the Valley of Mexico (1325-1521 AD)

The Basin of Mexico is one of the key areas for understanding the development of Mesoamerican cultures in the past (fig. 1). This area has always concentrated a lot of population in geographical territory defined by William Sanders and others (1979) as symbiotic. The *Basin of Mexico Project*, led by William T. Sanders shows a settlement typology ranging from hamlets, villages, regional

- 1 For example, in Nahuatl nextlahualtin means 'the payment', which was the name given to future victims of sacrifice. These men were thought of as a subject to be commercially traded (López Austin 1997: 180).
- 2 Some aspects to consider are, for example, old archaeological excavations without a proper register, the characteristics of the soil (suitable or not to a better conservation of organic remains such as maize), the difficulty of identifying the uses and processes involved in the use of maize as a ritual food.

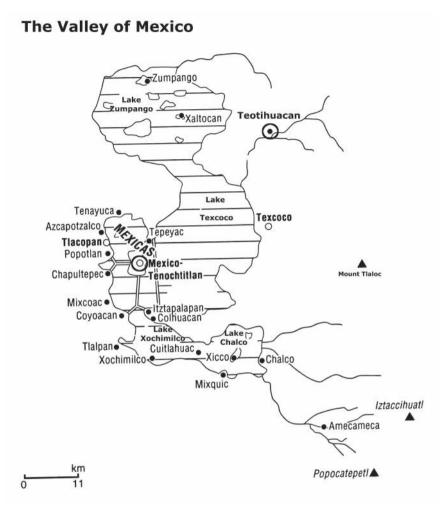


Fig. 1. The Valley of Mexico, taken from Graulich 1994.

centres, provincial centres and super-regional centres and dating from pre-Classic to post-Classic times. These site categories are defined by the size of the population, ceremonial architecture and their position in the territory (*ibid*.). This also includes the control of land and crops. The Basin of Mexico provides the most important components for the development of complex agricultural systems such as *chinampas* or *albarradones* for the control of water. That means a high level of organization and specialization on the part of the people involved in the construction of these infrastructures for cultivation. Teotihuacan was an essentially urban culture; a multiethnic society arranged according to a precise town-planning model and bonded by family relationships and lines of descent. This statement conceals a whole series of complex questions concerning sociopolitical organization within the same urban space during six centuries of cultural development. Teotihuacan gives us the chance to study a densely-populated, long-lasting city with inhabitants of various origins. This complex scenario leads us to a number of questions regarding the way the city was organized and governed and its expansion across Mesoamerica. Rather than a royal dynasty, in Teotihuacan we should imagine a tightly-knit elite group which superimposed a corporate model for exercising power, where the elite group was more important than the individual (Manzanilla 2006).³

Religion was part of this cultural and social process. The religion of Teotihuacan was a way to legitimate the elites of the city. We cannot consider that there was a pantheon of gods but rather that certain animals represented concepts related to the main axis of Teotihuacan religious thought – fertility. Around this concept we can identify animals such as the jaguar, owl and coyote, but also chimeric animals such as the feathered serpent (Quetzalcoatl) or quetzal (bird) butterfly (Quetzalpapalotl), related to power and fertility. The rulers, clothed in the attributes of these entities, acted as mediators between men and gods. Some important anthropomorphic representations were of Tlaloc (the god of rain) and Huehueteotl (the old god of fire).

After the collapse of Teotihuacan, the sociopolitical context changes dramatically. Teotihuacan's influence waned and it progressively fell under the control of the kingdom of Texcoco (Offner 1983). Gradually, political power in the Basin of Mexico moved from the north east to the south, with the rise of several city states including Azcapotzalco or Chalco which were in a continuous dynamic of conflict.

The origin of the Aztecs is well known from the chronicles that were written in the sixteenth and seventeenth centuries. The Aztecs (1325–1521) believed that they came from a mythical place, Aztlan, and were sent by their god Huiztilopochtli to find a new place in which to build their holy city, Mexico-Tenochtitlan. As usual, archeological and historical sources do not always agree. Archaeologically, we have the presence of Aztec I–II ceramics existing before

3 "... Una estrategia "corporativa" en la que el poder se comparte entre diferentes grupos en una sociedad. Hay restricciones hacia el comportamiento político de aquellos que detentan el poder, existe interdependencia entre subgrupos, y un énfasis en las representaciones colectivas y en el ritual basado en la fertilidad y la renovación de la sociedad y el cosmos." (Manzanilla 2006: 14) the traditional dates of arrival of the Aztecs according to historical sources (Cowgill 1996, Crider 2011, Garraty 2000 and 2006, Parsons *et al.* 1996). Therefore, the official history of the Mexica is related to the idea of building a national history that serves the interests of their rulers in the process of territorial expansion. Mexico-Tenochtitlan was conceived of as a holy city that represents the *axis mundi* or the centre of the Mexica universe. In the Templo Mayor, were enshrined the two main gods of the Aztecs: Huitzilopochtli and Tlaloc. The first belonged to the patron god of the Mexicas, and the second was related to the rain god. This second included a more traditional god of the Valley of Mexico, perhaps as a way of incorporating elements of the common past under the new rulers (Matos Moctezuma 2006, López Austin and López Luján 2009).

The Aztecs believed that the world in which they lived had been created as a result of their gods' self-sacrifice. They also believed that they had been designated to sustain the earth. One of their most important legends was referred to as the Creation of the Sun and the Moon. The gods met at Teotihuacan and there gave their blood and lives to create the world. Their blood was the precious element that started the movement of the stars (Sahagún 1950–82, Book 7: 6–8; *Leyenda de los Soles* 2011: 181–5). The Mexica, as the people chosen by their god Huitzilopochtli, were obliged to maintain the movement of the sun and the moon by providing it with the necessary blood. As a consequence of his sacred mandate, sacrifice and self-sacrifice become a political concern rather than just a religious issue. More and more blood was required to sustain their world and religion was a key element in their political discourse. The Aztecs created a pantheon of gods who required very specific rituals and offerings. War, religion and trade were inextricably bound together in sustaining the social structure of the Aztecs and feeding their particular vision of the cosmos.

By the time of the arrival of the Spaniards on the coast of Veracruz in 1519, Mesoamerica was in an expansive military political process led by the Aztecs who were building a tributary empire covering most of central Mexico. For the Spaniards there was no other city in Europe that could compare with the power and size of Mexico-Tenochtitlan.

The symbolism of maize in Mesoamerica

The cultivation of Maize represents the centrepiece of the food economy of the civilizations of ancient Mesoamerica. This cereal was not only the staple of the diet, but also a fundamental element in the indigenous worldview. Thereby a very strong link between the plant and humankind culminated in an

assimilation of the two life cycles (humankind and maize) so that we can find that the different stages of the development of cereal and the passage from one stage of human life to another; birth, youth, maturity, old age are cognate.

To understand the importance of maize in daily and religious lives of the Mesoamerican peoples we must consider first of all, its role in the mythical dimension. In the *Popol Vuh* of the Quiche Maya (c. 1550), the various acts of creation of mankind are described. Initial attempts were unsuccessful, but the subsequently the gods succeeded in creating humanity by mixing white and yellow corn (*Popol Vuh* 2013: 103). The grain then, became the flesh of humanity.

In the mythical narrative of central Mexico we do not find a similar myth. However, we can remember that *tonacayotl* ('our livelihood/*comida*') was the Nahuatl name used for maize. In a passage from the Book 11 of his *Florentine Codex*, Fray Bernardino de Sahagún's indigenous informants' definition of this cereal as *tomiyo*, 'our bones' is given (Sahagún 1950–82, Book 11: 279). Furthermore, in each of the previous Suns, the associated imperfect humanity was also fed on imperfect forms of the cereal (*Histoyre du Mechique* 2011: 145–7).

In the historical source called *Histoyre du Mechique* the maize god Cinteotl was created out of an illicit union between Xochiquétzal and Tezcatlipoca/Piltzintecuhtli. This god was put under the earth, and from his body grew all the useful plants eaten by men (*Histoyre du Mechique* 2011: 155).

In the *Legend of the Suns*, the discovery of cereal is explained. Quetzalcoatl, in the form of a black ant, found the maize saved inside the Tonacatepetl, our Mountain Livelihood. In Tamoanchan, the gods chewed the grain and put it in the mouths of humans, convinced that this would be good food for human-kind. Then Nanahuatl and the tlaloque (aquatic gods) fulminated the mountain, stealing maize and all other foods and taking control of agriculture (*Leyenda de los Soles* 2011: 181).

The maize plant was closely related to the structure of the universe and the four colours of the cereal were associated with the four cosmic directions. As early as the Olmec era (1200–400 BC), maize was deified at the various stages of the civilization's development and it has become integral to the Mesoamerican supernatural world. Iconographically in Olmec art, the maize god is represented with a spigot projecting from a hole in his front. Among the Classic Maya (250–900 AD), the rulers emphasized their relationships with this cereal and its supernatural personification, wearing an extremely long head coming out of corn leaves, in a reference to the shape of the corncob. The glyph *kan*, or corn grain, was often integrated into the head (Taube 1985, 1996, 2000). Finally, among the Mexica there were three deities associated with the plant:

Xilonen (the goddess of sweetcorn), Cinteotl (the god of mature corn) and Chicomecóatl (Cinteotl's female counterpart), also linked to the last stage of the development of cereal, as well as all other human maintenance foods, for example, beans, peppers and squash.

Mural painting and the representation of ritual maize in Teotihuacan

Teotihuacan being one of the first complex cities of Mesoamerican cultures, we can consider that the supply routes to the city were a central issue. Maize would be the basic food of the population of the city and their surroundings and its production, storage, processing and redistribution a matter of great importance. The city could not have reached its great size and political, religious and economic importance if it had not been able to feed those families who were not directly engaged in agriculture and hunting. On the contrary, a few years of poor maize harvests would require the city to stock up from beyond its boundaries and therefore enter into negotiations with other cities. Famine would imply a social and political instability, something that the elites would not want.

Surprisingly, representations of maize are scarce in Teotihuacan. The Teotihuacanos seem to have been more interested in representing the idea of fertility. In this case maize could be identified as a seed or tortilla and related to another seeds or flowers; never is it represented as an individual seed. Since maize has been identified as the staple food of Mesoamerican populations, capable of sustaining large populations, we could hypothesize that it might have been a more visible component in representions of the main deities of the city. In Teotihuacan it seems that maize can be related to two concepts: fertility as a generic concept and calendars.

As noted earlier, Teotihuacan society needed to mark the passage of time and control the water supply, as it was essential to know when and where the seeds needed to be planted and elites were responsible for knowing, deciding and instructing when the fields were to be prepared. Recognizing the arrival of the rainy and dry seasons was essential to ensure the proper development of the crops, accompanied by the appropriate rituals. In Teotihuacan there are some examples of these rituals as they are depicted in murals. In these, the Teotihuacan elite is represented as a collegial body, where the social group is more important than the individual as a member of a lineage. The elite is represented in different ways but always with common factors. Members are dressed in fine clothes with headdresses denoting their power and their hands are scattering seeds and precious things while they sing and pray. However, maize does not

seem to be represented in isolation but always part of the other precious things like *chia* seeds, shells, flowers and other 'precious things'. The concept of fertility seems to be more integral to Teotihuacan beliefs than the idea of a pantheon of gods, but this does not mean that we cannot identify some individual gods, such as Huehueteotl, the old fire god, or Tlaloc, the rain god. In the

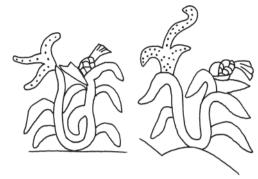


Fig. 2. Corn plants in the mural of Tlalocan - Teotihuacan. Drawing by E. Mazzetto 2014.

same way at Teotihuacan, we cannot find specifically a god dedicated to maize such as Cinteotl (the god of maize) or Chicomecoatl (the god of agriculture) will be for other cultures after the collapse of the city.

Some examples of those representations are the Tlalocan Mural in the departmental compound of Tepantitla. This place is situated about 500 metres east of the Pyramid of the Sun and is particularly remarkable for the presence of the mural of Tlalocan, which has been interpreted as representing the Teotihuacan concept of paradise. This mural painting represents a major figure, richly dressed, between two members of the elite, into whose hands precious things, including maize seeds, fall. Some researchers see her (or him) as a representation of the Great Mother Goddess, while others see a male figure (Caso 1942, López Austin 1994, Pasztory 1988). Beneath their feet, the mythical landscape of the paradise of Tlaloc (Tlalocan) is presented. Men dance, play and sing in an atmosphere of happiness. One of the representations show different plants, one of them identified as a maize plant (fig. 2).

Another representation of maize is provided by the so-called Mural of Agriculture. The Temple of Agriculture is located by near the Pyramid of the Moon and is so-called because of the themes of its paintings. It was considered that this structure is one of the earliest in Teotihuacan. This building was investigated by Leopoldo Batres in 1886 and subsequently by Antonio Peñafiel in the early years of the twentieth century. It has been proposed that there had been a distinct ethno-linguistic group which had occupied the Temple of Agriculture's

4 It is difficult to assess the degree of intervention that wins this structure because of its early exploration, but has been able to identify various stages of construction ranging from Tzacualli Patlachique-to-Xolalpan Tlamimilolpa phase.



Fig. 3. The censer of Ostoyohualco. Drawing by E. Mazzetto 2014.

earliest structures. This theory is based on the differences in architectural design and the pictorial characteristics of the mural painting. Unfortunately, the original mural painting disappeared and all that exists now is the copy, made over a hundred years ago. In this mural several characters are represented making offerings to a mortuary bundle. We can also see depicted various rituals associated with activities involving food preparation. Some of the processed foods that are represented have been identified as 'tortillas'. This assumption is based on the round, yellowish form of the

object. Jorge Angulo (1997: 202) suggests a Tlalancaleca connection to the Temple of Agriculture. This same round and yellowish form is also represented on the censer of Ostoyohualco (Manzanilla 1993). This censer carries an image which represents the same concept found in the mural painting: a member of the elite from whose hands precious things emerge (fig. 3). There is one aspect

that must be stated. We have no evidence that the yellowish forms represented tortillas; it is just that we decided that they are tortillas because their form is the same as that of modern day tortillas.

The apartment compound of Zacuala is composed of four sets of rooms distributed around an axis in a very harmonious composition. It has been suggested that Zacuala 'imposed its residential character' from the beginning of the construction. Compared to



Fig. 4. The god Tlaloc, Zacuala, Teotihuacan. Drawing by E. Mazzetto 2014.

the other compounds excavated, the interior of Zacuala is of much higher quality and more noble than those in Atetelco or Tetitla (Sejourné 1959: 191–2). One of these mural paintings represents the god Tlaloc, or a man dressed like this god, carrying corncobs. It is not an unusual representation but this way of depicting the god is not the most common (fig. 4) to be found.

The representation of maize in pre-Hispanic and early colonial codices

In this article we show two examples of the maize offerings in the *Codex Borgia* (16th century) and one more in the *Libro de los ritos* (1581). The first document is a key pre-Hispanic source, coming from the Valley of Puebla-Tlaxcala and dating from the second half of the fifteenth century. It is a religious codex. The members of the priestly class could read the influences of the days on the calendar and human lives (Seler 1963, Batalla Rosado 2008, *Codex Borgia* 1993). The second document is a colonial book focused on the religious Nahuatl world, written by the Dominic Fray Diego Durán in the second half of the sixteenth century. In this book there are illustrations copied from a pre-Hispanic codex, later adapted to the European style (Peperstraete 2007). Before proceeding to comment on these texts, we want to emphasize two key aspects: first, the metaphorical language used in the representation of maize offerings in the context of pre-Hispanic pictographical images but also their relationship with other oblations and gods. Second, the change in this illustrated language which can be detected after the conquest.

In Mexica images, maize is always represented as seeds and cobs. In the colonial era, seeds and cobs almost completely disappear and are replaced by the food in its processed forms, as *tortillas* and *tamales*.⁵

A very important point for Nahua people is that they consider maize to be a living being. Fray Bernardino de Sahagún describes the cooking process of maize using words such as the maize 'has not to be frightened by heat' (Sahagún 1950–82, Book 5: 184). If the maize feels mistreated by humans, 'he' could ask for famine or disasters to be visited on humankind. Sahagún (Book 6) says that maize sings in the pot because it is alive (Sahagún 1989: 454). In the *Primeros Memoriales* describing the rituals made in the feast of Atamalcualiztli it is written:

In the *Florentine Codex* there are some exceptions. In Book 2, in the description of the feast of Huey Tozoztli, corncobs are depicted as offerings to the gods of agriculture. Groups of seven cobs were wrapped in paper, sprinkled with rubber and taken to the temple of Chicomecoatl. (Sahagún 1950–82, Book 2: 63)

And for this reason was this done. It was said that thus the maize was made to rest in the eighth year, because it was said we torment it greatly in order to eat it, when we used chilli on it, when we salted it, when we treated it with pepper, when it was treated with lime. It was as if we had killed it; therefore we revived it. It was said that, thus the maize was made young (again). (Sahagún 1997: 69)

In the Codex Borgia, maize in the form of the cob is personified. Every representation has eyes, eyelids, a mouth and teeth. On pages 27 and 28, we have a picture of five lands of maize. In this representation, maize is attacked by rodents or is destroyed, deluged by heavy rain (Boone 2007: 145-51; Castillo Tejero 2009). In pictures 33 and 34 of the Codex Fejérváry-Mayer (16th century), maize is seen as a person. During its growing process maize changes its sex from masculine to feminine (Boone 2007: 144-5). It is very common to find maize offerings represented in pre-Hispanic codices as a grain. It is represented in one, two or three rows in a yellowish colour, into their xicalli or containers for offerings. Eduard Seler (1963: 33, 39) identified these pots as cuauhxicalli, prepared to collect the hearts and blood of the sacrificial victims. He also identifies the falling flower as a metaphor for blood. However, Elodie Dupey García (in press) thinks of these falling flowers in a different way; as a metaphor the pleasant odour of the flowers is associated with the heated oblations of maize.⁶ In the Codex Borgia, these pots are painted a green-blue colour. These colours are always associated with the 'precious thing' or the object itself (Mikulska Dąbrowska 2010: 134). They have circular decorations inside small boxes that evoke the chalchihuitl or greenstones, symbols of wealth and fertility.

By contrast, the representation of the cob is very rare and always refers directly to the plant itself. It seems to be related to an extensive iconographic convention, produced from pre-Classic times to post-Classic times. The two side blades which provide a wrapping for the corn can be easily recognized. The male part of the flower (in Nahuatl *quetzalmiyahuaio*) and the female part of the flower (in Nahuatl *xilotzontli*) are observed in detail.

The first image to be considered is number 72 (fig. 5). The sheet (*lamina*) is divided into four spaces, surrounded by four feathered serpents. Every space has one god and every god is oriented towards a cosmic course. We are interested in the representation of Quetzalcoatl, which is easily recognized by his black body

6 Seler (1963: 39) gave the same interpretation of other vessels filled with a frothy brown liquid which was interpreted as cocoa. Other elements that sometimes come out of the pots are necklaces of precious stones, pearls, greenstone, feathers and butterflies.

paint and his mouth-shaped beak. Set before this god is an incense burner with offerings. We can also identify a maguey thorn, yellow corn and a bone awl, used for self-sacrifice. Seler (1963: 246) believed that this corn was linked with the idea of Tamoanchan, the house of birth, and the Cincalco, the land of origin of maize. Ferdinand Anders and others suggest that as the Lord of Penance, Quetzalcoatl is linked with self-sacrifice (Códice Borgia 1993: 356). We have to remember that Quetzalcoatl is one of the pro-



Fig. 5. The god Quetzalcoatl with offerings of corncobs. Lamina 72 of the *Codex Borgia*. Drawing by E. Mazzetto 2014.

tagonists of the *Legend of the Suns* in which Quetzalcoatl sprinkles blood from his penis onto the bones of humankind so that they can be born. Also, Quetzalcoatl, transforms into an ant, steals the maize from the Tonacatepetl and gives it to humankind (*Leyenda de los Soles* 2011: 181). The song dedicated to Cihuacoatl, in Book 2 of the *Florentine Codex* (Sahagún 1950–82, Book 2: 236), provides a further example of the relationship between the three elements grouped in the *lamina*. In fact, the maguey thorn is compared with the golden fields of corn – the corncob – and with the *chicahuaztli*⁷. These three elements express a single concept: fertility.

Another interesting sheet is number 75 (fig. 6). Tlaloc, seated on his throne, is being fed by a priest. In front of Tlaloc we can see two pots. The two pots have maize, represented in the form of cobs. A censer, with offerings and perfume, takes the form of scroll. We can distinguish a rubber ball, surmounted by a representation of her warm fragrance. The shape of this spiral was compared with

7 Chicahuaztli was a musical instrument consisting of a handle with a round part at the top. Inside, the seeds were placed to create a sound when the instrument was shaken. It was one of the main attributes of Xipe Totec ('Our Lord the Flayed'), a deity associated with ripe corn. Its symbolism clearly also draws on the ripe corn. The verb chicahua means precisely 'to become strong, mature' (Wimmer 2006: chicahua). In addition, the chicahuaztli was often painted red, the colour of the body painting of the solar gods and corn (Couvreur 2011: 242).

the tail of the quetzal (Seler 1963: 163; Dupey García, forthcoming). There are also yellow corns on the cob and a string of precious stones. The second vessel is adorned with the decorations typical of jewellery; turquoise or greenstones, and contains three cobs; yellow, red and blue. Tlaloc is one of the gods who gets more offerings of maize. A song dedicated to Tlaloc (Sahagún 1950-82, Book 2: 224) says: 'You made our food' (motonacayouh tic chiuhqui). The tlaloque (the assistants of Tlaloc) also steal maize. Men pray to the

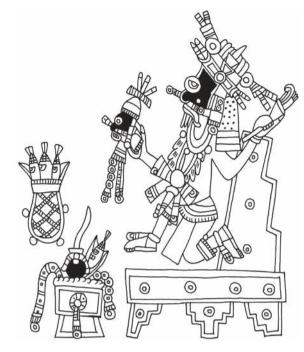


Fig. 6. The god Tlaloc with offerings of corncobs. Lamina 75 of the *Codex Borgia*. Drawing by E. Mazzetto 2014.



Fig. 7. The god Quetzalcoatl with offerings of tamales. Foil 251v of the *Libro de los Ritos* of D. Durán. Drawing by E. Mazzetto 2014.

tlaloque for a good harvest. More interesting is the association between cobs, quetzal feathers and precious stones. Karl Taube (2000) analysed these relationships in the Olmec people. According to Taube, the iconography expresses an interchangeability between corncobs, precious stones - chalchihuitl - and quetzal feathers. The presence of the corn can be replaced by one of these symbols of fertility and wealth. An example is the male flower of corn, sometimes replaced by a quetzal feather in the Mexica iconography. This game of substitutions is shown in the myth of the end of the Toltec age. Huemac, the last king of Tula, plays with the Tlaloque and wins. The Tlaloque gives maize to him, ready to be planted, but Huemac refuses the maize, preferring greenstone and feathers. The Tlaloque accept but leave the kingdom, taking with them the maize. So, Tula, the capital of the Toltec kingdom, falls (*Leyenda de los Soles* 2011: 193–7). Mercedes Montes de Oca Vega (1997) has studied the linguistic phenomenon known as *difrasismo* in the Nahuatl language. It is a grammatical construction in which two discrete words are coupled to form a metaphor. According to her, the myth of the defeat of Huemac can be interpreted as a misunderstanding of the *difrasismo* 'in chalchihuitl in quetzalli' ('greenstone, quetzal feather'). This is the metaphor used to describe the precious things. For the tlaloque precious things were corn; for Huemac the *difrasismo* meant, literally, greenstones and quetzal feathers. Based on this mythical story, in this pictographic context, we propose that the simultaneous presence of corn, precious stones and quetzal feathers may represent an aquatic ensemble. A redundancy of elements having the same meaning expressed in different forms. 8

The last example is taken from the *Libro de los Ritos* by Diego Durán (sheet 251 v). It is Quetzalcoatl again, but drawn in the European style (fig. 7). His attributes are the same: a black body, and a mouth in the shape of a beak. The offerings associated with this god are the same: maize, the decapitated heads of birds and some kind of bread. It would not be possible to understand the presence of these offerings without reading chapter 6. These pages describe precisely the oblations of food prepared in honour of the god:

... above these small plates, they put big *tamales*, big as melons – *tamales* is the bread they eat – on those tamales, large pieces of chicken were placed, which made great offerings before the altar of the idol. (Durán 1984, v. I: 66, our translation)

At this moment, the metaphorical signification of maize offerings disappears. The cereal is no longer present as a semantic unit of meaning in conjunction with other elements. The image depicts only the content of the text. The maize is interpreted as processed food in colonial texts. Despite some exceptions, the same logic is expressed in the majority of colonial pictographic documents. The symbolic content has disappeared and no longer makes sense.

8 The metaphorical reading of the pictographic documents has been studied by Jansen (*Códice Borgia* 1993) and Mikulska Dąbrowska (2010).

Conclusions

This article presented a preliminary approach to a discussion of maize as a ritual food using two disciplines: archaeology and anthropology. Our goal was to understand the role of maize in two Mesoamerican cultures of the Valley of Mexico: the Teotihuacan and Mexico-Tenochtitlan. The first consideration was the difficulty of identifying maize in an archaeological context. We have considered the fact of a preservation of the archaeological record, but also the symbolic representation of maize in Teotihuacan art. It is not an easy thing to consider the archaeological indicators for the presence or absence of maize in Teotihuacan. Some of the problems are: 1) the existence of old excavations without a proper scientific register; 2) the soil in Teotihuacan has characteristics which render it unsuitable for a very good preservation of ancient maize; 3) it is difficult to identify the uses and processes involved in the deployment of maize as a ritual food; 4) the identification of the representation of maize in material culture as mural paintings, decoration of censers and so forth is also not straightforward. Other aspects to consider include not only the presence of maize, but also the presence of some elements of material culture as metates in ritual contexts. Ritual contexts were present at all locations in the city. We considered such places as ritual buildings, temples, altars and plazas, but also the tunnels and caves situated in the north to north-east of the city could be included. However, maize is not represented everywhere.

In Teotihuacan, maize seems not to have had a principal role, but it was associated with the function of fertility. It seems that it the function of the priest was more important than the maize itself. In the iconography of Teotihuacan, maize is under-represented. Maize is represented in mural paintings but always associated with another seed. One exception is the Mural of Agriculture but we have to consider that we don't have the real mural, only a copy from the beginning of the twentieth century and its representation seems not fit the convention. In conclusion, we have few examples to suggest a cultural pattern.

In Mexica society the presence of maize is more likely to be represented as a ritual food associated with the gods. The Mexican religion is more structured, with a real pantheon of gods. Rituals and ritual foods are therefore more related to a particular god. Maize was also conceived of as a living being. At this moment, we have the information provided by the codices and other pictographic texts to help us to study the maize as ritual food. Maize was associated with other precious things such as feathers and greenstones. Maize was also associated with the more traditional gods of the Valley of Mexico before the Mexican people: Tlaloc and Quetzacoatl. Tlaloc, the rain god was associated

with the good harvest and Quetzalcoatl was transformed into a cultural hero who gave maize to humankind.

In an ethno-historical approach, offerings of maize appear as grains and, very rarely, in the form of cobs, and they are always linked to mythical stories. The maize can be seen to be associated with precious things and fertility in a metaphorical way but also in very accurate histories of the gods and human-kind. The conceptual notions of Teotihuacan times were replaced by a precise set of stories as written in the codices.

In colonial times, the symbolic content disappeared and no longer made sense. For the Spaniards maize had no significance because it was a new food. As a consequence maize was represented as a food without the religious connotations of pre-Hispanic times. For the colonial society, maize was merely a food and it was represented as such. The symbolism of maize as a ritual food progressively disappeared.

We still have many things to discuss about the role of maize as a ritual meal. We are surprised by the lack of iconographic information in Teotihuacan. Perhaps we overestimated the importance of maize as a ritual food, or perhaps there are problems with the archaeological record. For the Mexica period, however, we were surprised by the detail with which the food is represented as well as by the associated legends. Obviously, with the conquest and corn being a food which was unknown to the Spanish, it was not considered significant and was therefore under-represented in religious texts. The corn was just a food of the indigenous population and represented without any religious links for the new political powers.

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Bibliography

Angulo, Jorge, 1997. Teotihuacan. El proceso de evolución cultural reflejado en su desarrollo urbano-arquitectónico, PhD dissertation, Universidad Nacional Autónoma de México, Mexico City

- Batalla Rosado, Juan José, 2008. *El Códice Borgia. Una guía para un viaje alucinante por el inframundo* (Madrid, Biblioteca Apostolica Vaticana)
- Boone, Elizabeth Hill, 2007. *Cycles of Time and Meaning in the Mexican Books of Fate* (Austin, University of Texas Press)
- Caso, Alfonso, 1942. 'El paraíso terrenal en Teotihuacan', *Cuadernos Americanos* 1(6), pp. 127–136
- Castillo Tejero, Noemi, 2009. 'Representaciones del maíz en el *Códice Borgia*' in *Iconografía mexicana IX y X. Flora y fauna*, ed. Beatríz Barba de Piña Chan, and Alicia Blanco Padilla (Mexico City, Instituto Nacional de Antropología e Historia), pp. 63–72
- Codex Borgia, 1993. Códice Borgia, ed. Ferdinand Anders, Maarten Jansen, and Luis Reyes García (Mexico City and Graz, Fondo de Cultura Económica, Akademische Druck-u. Verlagsanstalt)
- Codex Fejérváry-Mayer, 1994. Códice Fejérváry-Mayer, ed. Ferdinand Anders, Maarten Jansen, and Gabina Aurora Pérez Jiménez (Mexico City and Graz, Fondo de Cultura Económica, Akademische Druck-u. Verlagsanstalt)
- Códice Borgia, 1993. Códice Borgia, ed. Ferdinand Anders, Maarten Jansen, and Luis Reyes Garcia (Mexico City and Graz, Fondo de Cultura Económica, Akademische Druck-u. Verlagsanstalt)
- Couvreur, Aurélie, 2011. 'Entre sceptres divins et instruments de musique cérémoniels. Le symbolisme des bâtons de sonnailles aztèques' in *La quête du serpent à plumes. Arts et religions de l'Amérique précolombienne. Hommage à Michel Graulich*, ed. S. Peperstraete, Nathalie Ragot, and Guilhem Olivier (Turnhout, Brepols Publishers, Bibliothèque de l'École Pratique des Hautes Études Sciences religieuses), pp. 235–50
- Cowgill, George L., 1996. 'A reconsideration of the post-Classic chronology of Central Mexico', *Ancient Mesoamerica*, 7, pp. 325–31
- Crider, Destiny, 2011. Epiclassic and Early Postclassic Interaction in Central Mexico as Evidenced by Decorated Pottery, PhD dissertation, Arizona State University
- Crider, Destiny, Deborah L. Nichols, Hector Neff, and Michael D. Glascock, 2007. In the aftermath of Teotihuacan: epiclassic pottery production and distribution in the Teotihuacan Valley, Mexico', *Latin American Antiquity*, 18, pp. 123–44
- Dupey García, Élodie, in press. 'Mostrar lo invisible. Representaciones del olor en códices prehispánicos del Centro de México' in *Mostrar y Ocultar en el Arte y en los Rituales: Perspectivas Comparativas*, ed. Guilhem Olivier and Johannes Neurath (Mexico City, Instituto de Investigaciones Históricas, Universidad Nacional Autónoma de México)
- Durán, Diego, 1984. Historia de las Indias de Nueva España e islas de Tierra firme, 2 vols (Mexico City, Porrúa)
- Flannery, Kent V., 1968. 'Archaeological systems theory and early Mesoamerica', Anthropological Archaeology in the Americas, pp. 67–87, http://www.neiu.edu/~circill/hageman/anth396/archaeologicalsystems.pdf (15.8.2014)

- Garraty, Christopher P., 2000. Ceramic indices of Aztec eliteness', *Ancient Mesoamerica*, 11, pp. 323–40
- ——2006. 'Aztec Teotihuacan: political processes at a post-classic and early colonial city-state in the Basin of Mexico', *Latin American Antiquity*, 17, pp. 363–87
- Graulich, Michel, 1994. *Montezuma ou l'apogée et la chute de l'empire aztèque* (Paris, Fayard)
- Histoyre du Mechique, 2011. 'Histoire du Mechique' in *Mitos e historias de los antiguos nahuas*, pal. and trans. Rafael Tena (Mexico City, Consejo Nacional para la Cultura y las Artes, Cien de México), pp. 124–65
- Kirchhoff, Paul, 1943. 'Mesoamerica', Acta Americana, I, pp. 92–107
- Leyenda de los Soles, 2011. 'Leyenda de los Soles' in *Mitos e historias de los antiguos nahuas*, pal. and trans. Rafael Tena (Mexico City, Consejo Nacional para la Cultura y las Artes, Cien de México), pp. 174–210
- López Austin, Alfredo, 1994. *Tamoanchan y Tlalocan* (Mexico City, Fondo de Cultura Económica)
- ——1997. 'Ofrenda y comunicación en la tradición religiosa mesoamericana' in *De Hombres y Dioses*, ed. Alfredo López Austin and Xavier Noguez (Mexico City, El Colegio Mexiquense), pp. 179–92
- López, Austin Alfredo, and Leonardo López Lujan, 2009. *Monte Sagrado-Templo Mayor. El cerro y la pirámide en la tradición mesoamericana* (Mexico City, Instituto Nacional de Antropología e Historia, Universidad Nacional Autónoma de México)
- Manzanilla, Linda, 1993. Anatomía de un conjunto residencial teotihuacano en Ostoyohualco, 2 vols (Mexico City, Universidad Nacional Autónoma de México, Instituto de Investigaciones Antropológicas)
- ——2006. 'Estados corporativos arcaicos. Organizaciones de excepción en escenarios excluyentes', *Cuicuilco*, 13(36), pp. 14–45
- Matos Moctezuma, Eduardo, 2006. *Tenochtitlan* (Mexico City, Fondo de Cultura Económica)
- Mikulska Dąbrowska, Katarzyna, 2010. '¿Cuchillos de sacrificio? El papel del contexto en la expresión pictórica mesoamericana', *Itinerarios*, 12, pp. 125–54
- Montes de Oca Vega, Mercedes, 1997. 'Los difrasismos en el náhuatl, un problema de traducción y de conceptualización', *Amerindia*, 22, pp. 31–46
- Offner, Jerome, 1983. *Law and Politics in Aztec Texcoco* (New York, Cambridge University Press)
- Parsons, Jeffrey R., Elizabeth Blumfiel, and Mary Hodge, 1996. 'Earlier dates for Early Aztec in the Basin of Mexico', *Ancient Mesoamerica*, 7, pp. 217–30
- Pasztory, Esther, 1988. 'A reinterpretation of Teotihuacan and its mural painting tradition' in *Feathered Serpents and Flowering Trees: Reconstructing the Murals of Teotihuacan*, ed. Katherine Berrin (Seattle, Fine Arts Museums of San Francisco and University of Washington Press), pp. 45–77
- Peperstraete, Sylvie, 2007. *La «Chronique X». Reconstitution et analyse d'une source perdue fondamentale sur la civilisation aztèque* (Oxford, British Archaeological Reports)

- Popol Vuh, 2013. Popol Vuh. Las antiguas historias del Quiché, ed. Adrían Recinos (Mexico City, Fondo de Cultura Económica)
- Sahagún, Bernardino de, 1950–82. Florentine Codex: General History of the Things of New Spain, 12 vols, trans. C. E. Dibble and J. O. Anderson (Santa Fe, Research and University of Utah)
- ——1989. Historia general de las cosas de Nueva España, 2 vols, ed. A. López Austin and J. García Quintana (Mexico City, Consejo Nacional para la Cultura y las Artes, Alianza Editorial Mexicana)
- ——1997. Primeros memoriales: Paleography of Nahuatl Text and English Translation, trans. T. D. Sullivan (Norman, University of Oklahoma Press)
- Sanders, William T., Jeffrey Parsons, and Robert Santley, 1979. *The Basin of Mexico: The Cultural Ecology of a Civilization* (New York, Academic Press)
- Séjourné, Laurette, 1959. *Un palacio en la ciudad de los dioses, Teotihuacán* (Mexico City, Instituto Nacional de Antropología e Historia)
- Seler, Eduard, 1963. *Códice Borgia*, 3 vols (Mexico City and Buenos Aires, Fondo de Cultura Económica)
- Staller, John E, Robert H. Tykot, and Bruce F. Benz, 2006. *Histories of Maize: Multi-disciplinary Approaches to the Prehistory, Linguistics, Biogeography, Domestication and Evolution of Maize* (San Diego, Elsevier Inc.)
- Taube, Karl, 1985. 'The classic Maya maize god: a reappraisal' in *Fifth Palenque Round Table*, 1983, vol. 7, ed. Merle Greene Robertson and Virginia M. Fields (San Francisco, The Pre-Columbian Art Research Institute), pp. 171–81
- ——1996. 'The Olmec maize god: the face of corn in formative Mesoamerica', Anthropology and Aesthetics, 29/30, pp. 39–81
- ——2000. 'Lightning Celts and corn fetishes: the formative Olmec and the development of maize symbolism in Mesoamerica and the American southwest' in Olmec Art and Archaeology: Social Complexity in the Formative Period, ed. John E. Clark and Mary E. Pye (Washington, DC, National Gallery of Art), pp. 297–337
- Wimmer, Alexis, 2006. *Dictionnaire de la langue nahuatl classique*, http://sites.estvideo.net/malinal/ (accessed 3.8.2014)