

Engendering space and activity in the pre-Hispanic Mayan civilisation

a multidisciplinary approach to the role of Maya women in
relationship to men

Volume 1: Haupttext

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To my Grandparents

Liliane and René

Abstract

This dissertation focuses on the Maya civilisation of the Lowlands from the Classic to Postclassic Period (250 AD -1521 AD). The aim is to understand (1) the perception of the living space and (2) gender for the pre-Hispanic society; (3) the fulfilment of activities in space and who makes it; and (4) the relationship between men and women in society. Who takes care of what kind of activity, where, how, and with whom? The methodology used will be to look at the in-situ sites (location, city plans, buildings, accessibility, control, social hierarchy in architecture) and at artefacts (found in bioarchaeology, excavations, museums) to understand which activity could have taken place in which space or location in a city, and at the iconography, epigraphy, and ethnography to have a glimpse at which activities could have been practiced at that time and by which gender. The structure of this investigation will start with a theoretical framework where the concepts of power, dependency, space, and gender will be analysed. Then the focus will be on the architecture of some structures comprising residences, temples, palaces, sweat baths, ballcourts, council houses, and platforms to see how a city was organised and how structures could be more public or private. Subsequently, the investigation will be on the artefactual remains. Where were they located within a structure, and how can they give back gendered activities when they are associated with a grave good? The next section will deal with the analysis of the activities. The aim will be to understand how and by whom activities were practiced. Finally, this investigation will discuss and compare the data to identify how a space can be gendered following the type of activities.

Keywords:

Gender, space, women, activity, roles, archaeology, pre-Hispanic, Maya

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1) Introduction

« On ne naît pas femme, on le devient »

Simone de Beauvoir

Since their creation, women have been seen as mysterious beings. Their role and meaning in life and society passed through different stages. Women's duty was to reproduce and care for their families. Were these the only purposes for women in society? Were they only objects for men? This dissertation examines the roles and spaces pre-Hispanic Maya women had in society.

1.1) Time and space frame

The Maya civilisation was located in the south of Mexico, Belize, Guatemala, Honduras, and El Salvador (Figure 1). The scientists divided the geographic zone into the Highlands (southern Guatemala, southwestern Honduras, and El Salvador) and the Lowlands (the Mexican part of the Yucatán península, Belize, northwest of Honduras, and north of Guatemala). The Petén region was a cluster for the Classic period, and the Yucatan state was a cluster for the Postclassic period. However, many sites in Yucatán could be ascribed to Preclassic and Classic times. For example, many Puuc sites overlapped two periods, such as the Late and Terminal Classic periods. Unfortunately, knowledge of civilisation is only possible through the best-preserved sites. 15 to 17 of these can be considered as big urban centres such as Tikal, Chichen Itza, Calakmul, etc. (Barrera Rubio 1995: 5). Most of the known sites are dated between the Late Classic and Terminal Classic periods (600-900 AD), which corresponded to the apogee of the Maya civilisation (Sharer et al. 2006: 98).



Figure 1: Map of Mesoamerica and its civilisation areas (FAMSI - Map of Mesoamerica - Foundation for the Advancement of Mesoamerican Studies, Inc.)

The term Mesoamerica can often be used to describe the zone comprising significant civilisations such as the Maya, Aztec, Olmec, Toltec, and Chichimec. This concept of Mesoamerica represents a spatial unit (Hendon et al. 2004: 1).

"It is mainly a cultural and linguistic concept that anthropologists find useful as a way to refer to groups of people who lived within a defined geographic region over a long time and who shared certain cultural and linguistic features" (cited by Hendon et al. 2004: 2).

The term Mesoamerica was created only to facilitate the study of these civilisations located between Central Mexico and Central America, where the same features of worldview, tradition, creation myth, and beliefs were found (ibid.: 3). In Mesoamerica, many peoples with different languages cohabited. However, some standard linguistic features could be analysed. These could be explained through interaction and exchange (ibid.: 10). Archaeologists can find some time-scale problems. Indeed, each civilisation had its chronology, but all had an Archaic, Formative, Classic, and Postclassic period by European standards. The problem was to explain the beginning and the end of each one (ibid.: 14).

In terms of time scale, this dissertation will transition from the Classic period to the Postclassic period. According to the common understanding, the Classic period was from 200 AD to 900 AD, and the Postclassic period dates from 900 AD to the Spanish conquest in 1524 AD for the Maya area. The Classic period appeared due to the emergence of kingship and through "a doctrinal ideology of egalitarianism among elites" (cited by Masson et al. 2002: 112). The transition from Classic time to Postclassic was not a total break. Indeed, most cities collapsed while a few others emerged. This means that the Maya civilisation was a society with many transformations (Chase et al. 1991: 1). Unfortunately, the Postclassic period is very little known. An augmented population migration, long-distance exchange, and a change in the religious cults characterised it. The movement was mainly from central Petén to northern Yucatán (Cecil et al. 2018: 159).

1.2) Target people of the study

The people involved here are the elite and common women and, to a lesser degree, the common and elite men. The Maya civilisation was socially differentiated. The elite included, on the one side, the ruling elite, which was composed of the ruler and his family. On the other side, the non-royal or secondary elite had various titles but could not rule (Biró 2013: 82).

"Elite persons who did not have the right to rule were competitors to members of the ruling houses of Classic Maya cities. As the number of the secondary elite grew, their power increased accordingly, and the ruler needed to accommodate them by several mechanisms" (cited by Biró 2013: 81).

Indeed, around the 8th century, the non-royal elite gained in number due to increased competition between them and the ruler (ibid.: 83). The primary purpose of the competition was to gain status and prestige. Their task was to manage resources in such a way as to be able to offer more than they received. They could also transform the resources into social production, which was useful for the community (artefacts for monuments, temples, or burials) (Masson et al. 2002: 32ff.). The possibility to participate in rituals and to have access to foreign dignitaries was a source of prestige, authority, and political power (Inomata et al.

2018: 34). To avoid complete inaction and inefficacy of the ruler, he decided to accord them some privileges, and one of them could have been the representation of the non-royal elite on public monuments (Biró 2013: 83). Sometimes it could happen that court officials were initially from a non-noble class. Due to their lesser status, they could not produce a hereditary descendant. In this way, they were less tempted to cause trouble (Inomata et al. 2018: 36f.). Under common men and women, this dissertation will analyse the social classes involved in agriculture, administration, artisanry, and so on (Manzanilla 2009: 7f.).

In the Common Western view, women were always in the house while they cooked, carried children, or wove. This was what the first friars believed when they came to Mexico. They considered the way of living in Europe from the 16th century. They applied their knowledge to the Maya population. In Spain, in the 16th century, women were underestimated. They had to obey their father or their husband. Also, rights and politics were not part of feminine activities. The clerical people were also unaware of women's role in the Maya society because they believed women had no major key activities. The writing from this time only speaks from the men. Through time, the place of women in society changed in the Western sense, and so did the view of the Mayan civilisation. The first person to do some research about women was Tatiana Proskouriakoff. She discovered that the female names were prefaced by the logograph *Ix* or *Ixik* (Stone et al. 2011: 3). In the '80s, a new field in archaeology appeared: Gender Studies.

1.3) Status of research

This dissertation will focus on a significant part of the visual medium, such as the iconography and the epigraphy. The iconography could be seen in buildings such as palaces, temples, or houses. Moreover, it could be on stelae and lintels on artefacts such as ceramics, figurines, and jewellery. The iconography was understood more easily and earlier than the epigraphy. After an old saw, "one picture is worth a thousand words" (cited by Coe 1992: 20). Also, there is no way to be sure if one person will see a picture in the same way as another. The iconography has some codes of representation that a viewer should know to

understand it (ibid.: 21). The decipherment of the Mayan glyphs is still not fully established, but many texts could be read. Before deciphering a text, the scientists had to understand the components of the language. Writing is a kind of speech that is put into a visual form. A message could be transmitted if people were able to understand the conventions behind it (ibid.: 20).

In the 19th century, many explorers went to Mesoamerica and took some artefacts to their home country. Brasseur de Bourbourg translated the sacred book of the K'iche': the *Popol Vuh*, into European languages. He also discovered the book of Diego de Landa: *Relación de las cosas de Yucatán* (ibid.: 99). Diego de Landa was a significant person for delivering indications about the Maya culture and their glyphs. However, he was also implicated in losing many Maya written texts (ibid.: 100).

In the 20th century, new portions of the forest were cleared, letting the ruins show up. At this time, the *chicleros* used the trees to produce gum called *chicle*. Teobert Maler used the opportunity to take pictures of new stelae and lintels (Coe 1992: 114). The iconography, with Eduard Seler, took a significant step forward. He founded the Mesoamerican iconographic research (ibid.: 120). Yuri Knorosov was the first person to understand the functioning of the Maya glyphs and deciphered some texts. He stated that "hieroglyphic writing is typical of state societies which they are maintained as a monopoly by a class of priestly scribes" (ibid.: 147). One of the most famous women in Maya research was Tatiana Proskouriakoff. She made architectural reconstruction drawings and used watercolours (ibid.: 168). Moreover, she provided an evolutionary picture of how the Maya sculpture changed through time. On stelae and lintels, it was thought that there were gods represented. Proskouriakoff identified these persons as real men and women and said their dates were part of the historical record. The events in question could be about dynastic rivalry, royal marriages, or captives (ibid.: 171).

In the 80's, scientists looked at ceramics. They could interpret many scenes from the ceramics because they were inspired by myths, as in the *Popol Vuh* (Coe 1992: 220). Justin Kerr made many rollouts of entire ceramic vessels. Coe could then see two text fields on ceramics. On the one hand, the primary text formed a horizontal band on the rim of the vase called the primary standard sequence (PSS), which was

discovered in 1973. On the other hand, a secondary text was within the scene and could indicate the title of the characters, the personal clause (ibid.: 223). This leads us nowadays to an 85% decipherment of the Maya glyphs (ibid.: 262).

The iconography and epigraphy could be carved, incised, or painted. The size, materiality, and execution could explain the importance of signs and scenes. The message conveyed could be read through this visual effect. The themes could be made of three significant scenes. The first one was the ritual. The meaning of the ritual lies in the cult of divinities, sacrifices, ancestors, religious ceremonies, and so on. The second was political activity. This theme is connected with the enthronement, the legitimisation to rule, the marriage alliances, the exchange of goods, the heredity, and the ruler's death. The third scene was the daily activities, which represented food preparation, spinning, weaving, workshops, etc.

1.4) Problematic

This investigation aims to understand how the Mayans conceived living spaces and gender: how they understood the city and the hinterland, their buildings, and how they were linked to the question of gender. Moreover, through the excavation of the artefacts, the objective would be to understand where in the living space they were found and to which activity they could correspond. With visual media such as iconography and epigraphy, as well as ethnography, it is interesting to look at who practiced special activities and where they took place within the living space. A critical point will then be to understand how they conceived gender and how they represented it (in the iconography, in burials, and so on). Through the representation and ethnography, we can reconstruct which activity was done by which gender category. The focus of this dissertation is the combination of who can produce which kind of activity and where it could take place in space. In addition, the relationship between men and women in space and activities will be taken into focus. Did they share the same activities in the same space (complementarity), or were they separated: each one its space and its tasks (asymmetry and dependency)? In a few words, the goal is to understand who is doing what kind of activity, where, how, and with whom.

The central problematics of this study will be: (1) How were the Mayan cities organized? (2) Were the spaces in the Mayan society gendered? If yes, which were these places, and how were they gendered? (3) Were the activities differentiated between the genders? If yes, which activities were reserved for women, and where did they occur? (4) How was the relationship between men and women through space gendering and activity differentiation? (5) Can we still assume that the women were doing activities inside, in the private sphere, whereas the men practiced outdoor activities in the public sphere?

1.5) Structure of the dissertation

This dissertation will start with a theoretical framework. Here, we want to understand the concepts of power, dependence, and interdependence in relation to gender. How were the people linked together within a society? How did it come to a social hierarchy? What different links could be possible between people? Next, the concept of space will be discussed. Here, the focus lies on how the Mayans conceived, defined, and understood their living space. The following concept to be analysed is gender. Gender was created by the social norms of a society and was perpetuated through repetitive performance. Gender differs from sex, but both can be seen in the human body. Sexuality and reproduction are dictated by gender and so by the culture in which we live. After the concept of gender, we will see how it was received in the Western and Mayan worlds. Here, we will see how women created, symbolically and naturally, the world, how they took part in powerful tasks, and how gender divided space and activities in this part of the world.

The next part deals with architecture. Here, the aim will be to understand how a site is spatially organised. For this, some structures will be analysed, such as the residences, the administrative structures (ballcourts, council houses), the ceremonial buildings (temples, shrines), the political structures (palaces, places with thrones), and platforms. The investigation will identify the architectural features of each category of structures (presence of benches, cordholders, niches, vault, orientation in space, form, monumentality, etc.) to have some clues about their probable function. The dichotomy of private and public space will be part of this analysis. Approaches from the social space analysis will be used. Knowing if a

structure was accessible or segregated can give hints about their role in society and the individuals that could use it. If buildings or parts of the city were private, how could we see them? Which mechanisms made them private? Who could pass, and who was restricted? Who was determining and controlling the access?

A further part of this dissertation will deal with the different gendered activities that were taking place in the Maya civilisation. A multidisciplinary approach will be used to identify them. For example, textile production and manufacture were complex activities regrouping various tasks such as planting cotton or fibre, spinning and weaving textile pieces, and dying, selling, or exchanging goods. All these steps can be deduced from different media. The artefacts recovered in structures can tell us about the tools needed for this activity. The grave goods can permit us to associate a gender with textile production and manufacture. The iconography and epigraphy give us visual proof of how they made and qualified it. The ethnography allows us to see how it could have looked and experience the *chaîne opératoire* needed. Finally, the osteology of human remains can indicate the type of activities a person performed and their posture. These media will be used to understand how and by whom the gendered activities were practiced. As seen, textile production and manufacture will be part of the investigation, including activities related to nutrition, civic and ceremonial activities, and political activities.

The last part of this dissertation will be the men/women relationship within space. Here, the focus will be on analysing how gendered activities were dispersed in space. Their tasks were located in different locations within the city and the structure. We want to understand which structures were more masculine, feminine, or mixed. Is there a different spatial organisation of activities depending on the size and type of site? Can we assume that the private/public dichotomy can apply to the Maya civilisation? Were women restricted to private spaces, while the public spaces were those of men? Was the gendered relationship complementary, asymmetrical, or dependent?

1.6) Methodology

The methodology used in this dissertation is multidisciplinary. The fields of archaeology, bioarchaeology, epigraphy, ethnology, and iconography will be the focus to give some answers (Figure 2).

Task	Time
Theoretical and literature research about the theme	Nov 2020- Dec 2021
Writing and defining the introduction and theoretical part	Jan-Mar 2022
Delimiting and preparation of fieldwork	Mar-Jun 2022
Fieldwork in Mexico and museums	Jul-Sept 2022
Ethnographic work in Guatemala	Sept-Oct 2022
Analysis of fieldword data and literature research	Oct 2022-Feb 2023
Visiting museums in Europe	Mar-Apr 2023
Preparation of fieldwork	Apr-Jun 2023
Fieldwork in Guatemala and Belize and museums	Jun-Jul 2023
Archival work in Mexico	Aug 2023
Analysis of fieldword, archive data and literature research	Sept 2023- Jan 2024
Archival work in Mexico	Jan-Feb 2024
Analysis of archive data and literature research	Feb-Apr 2024
Writing process	From Mai 2024

Figure 2: Chronogram of the PhD elaboration

In the first step, the investigation will be based on the structures present in cities. For this, the author reads excavation reports from the different archaeological sites. These sites played a role in the Maya Lowlands during the Classic and/ or Postclassic period. Only important and well-excavated sites are getting our attention for analysis. The list of sites will be discussed in the corpus. After reading and having in mind the structures of each site, only a few will be interpreted. For example, the focus will be on important or high temples, pyramids, palaces, ballcourts, council houses, high-rank and low-rank residences, markets, sweat baths, men's houses, and some pilgrimage places. Not every architectural type can be found on each site. The available structures of interest will be selected and placed on a map. Once it is done, the author will go in situ. The analysis of each selected

structure will be towards the access patterns (presence of stairs, located near *sacbeob*, access controlled by the passage through a building), the city arrangement (location in the city, connection to other buildings), publicity or privacy of a structure (visibility, segregation of class/ age/ gender), the height, the form of the structure and the architectural style. Furthermore, the interior of the structures, if they remain, will be important in defining the role or activities that took place in the building. Here, the interpretation will focus on the benches and cordholders. All in all, the purpose will be to identify through architecture and the location the possible function and role a structure played in Mayan society. If a general pattern existed, it would be possible to ascribe a function to structures without excavating them.

In the second step, the study will analyse the artefacts. The excavation reports will again give some information about the context of the findings. For example, where precisely in the structures or rooms was object A discovered? The precise location of an artefact in a space can enable us to interpret the function of a room, a house, or a compound. Most of the pieces are now exposed in different museum exhibitions. Therefore, the museums play an essential role. In addition, most artefacts were associated with human skeletal remains in tombs. In the funerary context, we can deduce which gender and status used this artefact to practice a special activity. Besides, the osteological data of the human remains can provide us with more clues. The practice of an activity from a young age can provoke some osteological malformation or adaptation. Through this information, it is possible to ascribe a gender and, in some cases, status to a position or a body part that was required by an activity.

In a third step, this dissertation will focus on the epigraphy and iconography. In royal or high-ranked funerary spaces, some artefacts were carved and dedicated to their owner. This permits one to associate an object with a gender, for example. On stone monuments, glyphs narrate the story of royal and elite people. In many cases, their titles or functions are mentioned. If scholars can find the connection between the historical facts on monuments and the royal tombs, we can interpret the use of an artefact. Moreover, the iconography on stone monuments or ceramics depicts people involved in activities. The illustrations are key information about gender,

artefact, and activities. Both fields let us understand which activities were practiced by whom and which tools were used.

In a fourth step, the field of ethnography will be interpreted. When the Spaniards came and invaded the Maya Lowlands, the friars wrote their observations about the Maya culture. They described subjectively what they found interesting or things that were horrifying them as Christians. Some of their notes are about the realisation of activities. Their focus was on the male activities and not that much on the female ones. Consequently, this data set is biased and incomplete. Furthermore, the Maya communities are not extinguished. Even today, it is possible to come into contact with people who live traditionally. Therefore, the author will spend some time in the Maya community. The aim will be to observe which activities are realised, which tools are used, who is practicing them, and their location within the house and the city.

In the end, all the data collected from the different disciplines will be compared. Hypotheses and generalisations will be made to identify which activities were practiced by whom, where, and with which tools.

1.7) Corpus

The corpus necessary for this dissertation will be composed of published archaeological materials, artefacts from museum exhibitions, and the investigation and visit to the archaeological sites themselves.

1.7.1) Published archaeological materials

Under the archaeological materials, we will deal with two catalogues by photographer Justin Kerr. On the one hand, there are five volumes about ceramic rollouts called *The Maya Vase Book: a corpus of rollout photographs of Maya vases*. These ceramics represent scenes in palaces, such as tribute exchange, women grinding maize, and mythological scenes with deities. It enables us to examine where some activities occurred, who was involved, and which tools or artefacts were needed. Only ceramics depicting activities will be taken into account. On the

stone monuments, ceramics, figurines, artefacts made of different materials, tools, ornaments, and reconstructions (the tomb of Pakal from Palenque and the temple of murals from Bonampak, for example). Next, there is the Gran Museo del Mundo Maya in Mérida. Here, the exhibition focuses on the history of the Yucatec Maya from its early times until now. In this museum, we can see reconstructions (cities, scenes made with figurines, sculptures, and temple facades), stone monuments, ceramics, figurines, tools, ornaments, artefacts composed of different materials, and codices. After that, there is the Museo de la Cultura Maya located in Cancún. The focus of this museum lies in the history of the Maya communities from the beginning until nowadays. Tools, artefacts of various materials, ceramics, figurines, stone monuments, and ornaments are exposed. And finally, we have the Museo del Baluarte de Soledad in Campeche. In this museum, the architecture is the central point of attention. Stone monuments and structures from four different Maya Lowland regions are explored: North Petén, Chenes, Puuc, and Río Bec. The iconography and epigraphy will be the key disciplines.

1.7.2.2) In Guatemala

Four museums in Guatemala will be of interest to us. The first stop is the Museo Nacional de Arqueología y Etnología in Guatemala City. The museum exhibits textiles, stone monuments, tools, artefacts, ornaments, figurines, and reconstructions (of daily activities using figurines and maquettes of city centres). The focus of the museum is to discover the Maya civilisation until today. The second museum will be the Museo Popol Vuh in Guatemala City. One part is dedicated to the Maya civilisation, and the other to the colonial period. There, we can look at ceramics, stone monuments, figurines, ornaments, and codices. The third museum in Guatemala City is called the Museo Miraflores. It deals mainly with the archaeological site of Kaminaljuyu. It was one of the oldest cities of the Guatemala Valley and is located underneath the actual Guatemala City. The history of pre-Hispanic times till nowadays is explained through the exposition of ceramics, figurines, stone monuments, and the reconstruction of the site. The fourth museum will be the Museo Regional del Mundo Maya San Miguel in Flores. The focus of

the exhibition lies in the Petén area. Different objects, such as ceramics, ornaments, and stone monuments, testify to the presence of pre-Hispanic Maya there.

1.7.2.3) In Europe

In Europe, the collections of some museums are of interest for this investigation. Many expeditions were planned during the late 19th and early 20th centuries, and various Maya cities were discovered. At that time, they were allowed to bring objects, sculptures, and artefacts to their home country in Europe. Therefore, some exhibitions are important. One museum called Volksmuseum is located in Leiden. The different pieces exposed are divided into geographical and cultural zones. Ceramics, ornaments, stone monuments, textiles, and decorated skulls depict the Maya culture. The British Museum in London will be another visit. This museum has an array of galleries divided into cultural and temporal periods. Room 27 will be in focus. It exposes the cultures of Mesoamerica. We can find some ceramics, figurines, tools, artefacts, stone monuments, and ornaments from the Maya culture. In Madrid we can see the Museo de América. The museum focuses on the history of America from pre-Hispanic times to the present day. Codices, figurines, ornaments, stone monuments, and ceramics from the Maya Lowlands can be seen there. Finally, there is the Ethnologisches Museum in Berlin. The museum exhibits pieces from Hawaii, Africa, China, and America. We will deal with the Mesoamerican collection. The Maya culture is represented through ceramics, stone monuments, and artefacts.

1.7.3) Archaeological sites

For this investigation, archaeological sites will be part of the corpus. The focus will be to analyse sites from the Maya Lowlands that had an apogee or were occupied during the Classic and/or Postclassic period. Furthermore, the sites in question must be well excavated, and the structures must still be well recognisable (sculptures of the façade, benches, cordholders, and room distribution). The following will briefly present the archaeological sites of the Mexican states of

Quintana Roo, Yucatan, Campeche, Chiapas, Belize, Guatemala, Honduras, and El Salvador (Figure 5).

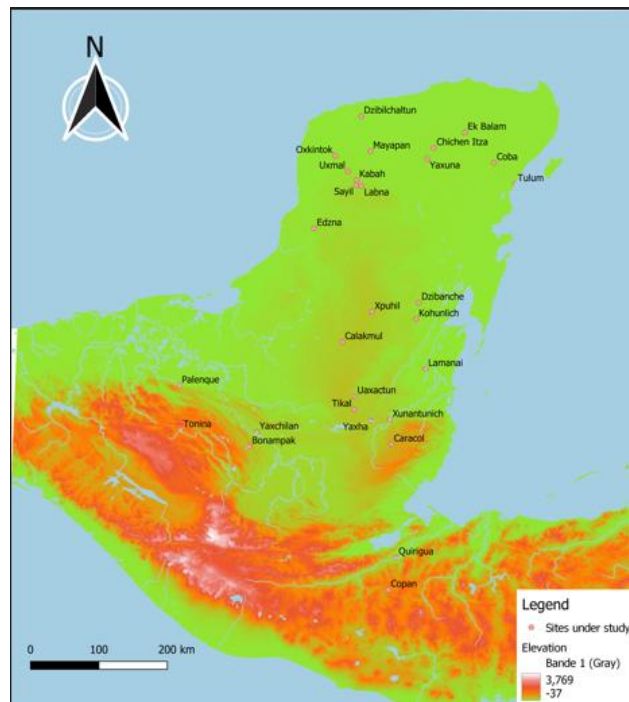


Figure 5: Map of the visited archaeological sites made by GIS

1.7.3.1) The sites of Quintana Roo, México

Cobá is an archaeological site located 100km southeast of Chichen Itza and 45km northwest of Tulum in the Quintana Roo state of Mexico (Andrews 1981: 4). The name Cobá can mean abundant water or murky water (Fettweis 1988: 67). This can be due to its location near inland lakes (Andrews 1981: 4). The site is constructed in three concentric zones (ibid.: 5). The most central zone is composed of civic-ceremonial structures and four groups of habitation called Coba, Macanxoc, Chumuc Mul, and Nohoch Mul (Fettweis 1988: 68). Temporally, the city was occupied from the Preclassic until the Postclassic. Its apogee was around 600- 900 AD (ibid.: 68).

Dzibanché is a significant and important site from the southern part of the Quintana Roo state (Andrews 1994: 6). It is located 35km north of Kohunlich (ibid.: 8). The core centre of the site was composed mostly of palaces, multiroomed structures, and pyramid-temples (Nalda et al. 2014: 192). The apogee of Dzibanché was during the Middle Classic (ibid.: 192).

Kohunlich is located south of Quintana Roo state, 75km from Xpuhil and 60km west of Chetumal (Andrews 1988: 104). The site is considered as important as Palenque, Uxmal, or Becan (ibid.: 105). Kohunlich comprises four groups (A-D) of buildings, a Great Plaza, an Acropolis Plaza, and a South Court (ibid.: 108). The peak of occupation was reached between 600-800 AD (Nalda et al. 2014: 183).

Tulum is located on the east coast of the Yucatan peninsula (Lothrop 1924: 64). The site is built above a cliff facing the Caribbean Sea (ibid.: 65). The ancient name of the city was Zama, which signifies the city of the dawn (ibid.: 65). The modern given name to the city as Tulum means that the city is surrounded by defensive walls (ibid.: 65). Indeed, the central religious compound of the site was enclosed by a Great Wall (ibid.: 67). Tulum was occupied from the Classic period until the Postclassic (ibid.: 64).

1.7.3.2) The sites of Yucatán, México

Chichen Itzá is located in the centre of the northern Yucatan Peninsula (Perez de Heredia Puente 2010: iii). The name of the city means “the mouth of the well of the Itza” due to the presence of many cenotes (INAH 1969: 4). Chichen Itzá has an extensive corpus of inscribed and carved monuments (Boot 2005: 286). The site is composed of Great Plaza, Great Ballcourt (ibid.: 401), Temple of Warriors, Castillo, Temple of Chac Mool, Tzompantli (ibid.: 431), Group of Thousand Columns, Mercado (ibid.: 433), and many dance platforms (ibid.: 432). This central precinct is surrounded by residential mounds (ibid.: 435). The city was populated from the Late/Terminal Classic to the Early Postclassic period (Perez de Heredia Puente 2010: 5).

Dzibilchaltun is an archaeological site located 15km north of Mérida (Patriois 2008: 25). The city is composed of the Mirador Group (Sabloff 1981: 325), Komchen Group (ibid.: 326), Central Plaza (ibid.: 329), South Plaza, Seven Dolls Group (ibid.: 330), and various cluster of residential areas (ibid.: 327). Dzibilchaltun was occupied from the Formative until the Postclassic period (Andrews 1975: 235).

Ek Balam is located 23km north of Valladolid (Andrews 1995: 20). The site is composed of a central precinct with civic-ceremonial function delimited from the periphery by a low wall. The core area has a large central plaza and three platform complexes on the east, west, and north. There is also a pyramid-platform complex (ibid.: 21). Ek Balam had an apogee during the Late/Terminal Classic period (ibid.: 22).

Kabah is a city located 8km from Sayil (Peiró 2015: 205). The site is composed of three zones. On the east, there are range-type buildings. On the west, there are palace-type structures. In the centre, there are various pyramid temples. Residences are around the central precinct (Andrews 1994: 6). Kabah was occupied from the Late Classic until the Early Postclassic (ibid.: 20).

Labná is located 28km southeast of Uxmal (Peiró 2015: 161). The city is composed of two sectors. The north has the palace. The south sector comprises the Central Plaza, East Plaza, South Plazoleta, Mirador Temple, Quadrangle with arch, and various range-type buildings arranged around them (ibid.: 164). Labná was occupied from the Late Preclassic until Early Postclassic times (ibid.: 165).

Mayapan is a city located 40km southeast of Mérida (Pollock 1962: 1). The name of the site means “standard or banner of the Maya” (Pollock 1962: 2). Mayapan is composed of a stone wall that protects the core area of the city, 200 dwellings, and 100 ceremonial structures were identified until today (ibid.: 15). The city was occupied during the Postclassic period (Millbrath et al. 2003: 1).

Oxkintok is located 50km south of Mérida (Proyecto Oxkintok 1990:11). The city plan is forming an L-shape (ibid.: 12). The site centre is composed of May Group (ibid.: 31f.), Ah Canul Group (ibid.: 19f.), Dzib Group, and the Satunsat (ibid.: 63f.). Oxkintok was occupied from the Classic to the Postclassic period (ibid.: 150).

Sayil is located 8km from Kabah and Labna (Sabloff 1991: 5; Peiró 2015: 205). The city is composed of three major sectors. The north has a three-story palace. The centre has the Mirador Temple. The south has the two-story palace and the ballcourt (Peiró 2015: 208). The residential areas are placed around these zones (ibid.: 209). Sayil's apogee was during the Late and Terminal Classic (Sabloff 1991: 4; Peiró 2015: 209).

Uxmal is located 70km south of Mérida (Peiró 2015: 255). The site is famous for its numerous quadrangles (ibid.: 265). Uxmal is composed of a defensive wall surrounding the central precinct. The core area has four major zones. In the centre, there is a Ballcourt. On the north, there is the North Group, the Nunnery Quadrangle, and the Magician Pyramid. The South is composed of the Palace of the Governor. Finally, the West has the Major Temple, South Temple, South Acropolis, Cemetery Group, and West Group (ibid.: 259). The occupation period of the site was from Classic to Early Postclassic times (ibid.: 260).

Yaxuná is 22km south of Chichen Itza (Ardren 2017: 255). The name of the city means “green or first house” (ibid.: 19), and for other people the significance is nearer to the translation into “Quetzal water” (Stanton 2010: 5). The site is composed of three Acropolis (North, Central, South), E Group, Ballcourt, and Puuc Group (Ardren 2017: 26). Yaxuná is famous for its 100km long *sacbe* connecting to Coba (Stanton 2010: 7). The history of the site started from the Formative time until the Postclassic (Ardren 2017: 28).

1.7.3.3) The sites of Campeche, México

Calakmul is a significant site located south of the Campeche state and 20km from the Guatemalan border away (INAH 2003: 37). The city is composed of groupings of structures (ibid.: 37). The site centre’s significant buildings are the Great Plaza, the Northwest Group, the Chiik Nahb Acropolis, the Great Acropolis, and the Small Acropolis (Martínez Vega 2012: 99). Calakmul has a long site history starting from 500BC until 900AD (INAH 2003: 76).

Edzná is located in the state of Campeche, about 55km southeast of the city of Campeche (Peiró 2015: 139). The site comprises a main ceremonial centre, the Northwest Pyramid, the Savanna, the Quemado, and the Far West Group (Andrews 1984: 20). These buildings are surrounded by different structure complexes (Peiró 2015: 144). Edzná was populated from Preclassic until Postclassic times, peaking between 600- 900 AD (ibid.: 145).

Xpuhil is a small site located in the state of Campeche. The city's name can be translated as the place of the cattails (Ruppert et al. 1944: 87). The site is located in

and around the modern city of Xpujil (Herbert Mayer 2010: 133). Xpuhil is composed of different groups and parts. It has the Xpuhil Kitam, Xpuhil Cuartel, Kitam Xpuhil Sur (ibid.: 134), Xpuhil Huayas, Xpuhil I and II (ibid.: 1f.). The occupation history lasted from Preclassic to Postclassic times (Gonzalez n.d.: 1).

1.7.3.4) The sites of Chiapas, México

Bonampak is an archaeological site located in the state of Chiapas, 20km south of Yaxchilán (Andrews 1991: 110). It is a small site composed of a Main Plaza, an Acropolis, the Complex of Frey, and the Quemado Complex (ibid.: 111). Bonampak is famous for its murals; researchers like Miller have dedicated books about them (Miller 1986, *The Murals of Bonampak*). The site was occupied during the Classic period (Andrews 1991: 112).

Palenque is located in the state of Chiapas (Marken 2007: 2). The name of the city can mean different things such as palisade, place of war, or place of the snake (Ruz Lhuillier 1973: 4). Palenque is composed of groupings of structures numbered from A to E with similar architectural and constructive features (Marken 2007: 64). The site is famous for the discovery of the tomb of K'inich Janaab Pakal, the numerous well-preserved glyphs and the stone monuments (ibid.: 57). Temporally, the city was occupied from the Preclassic time until the Late Classic period (ibid.: 5).

Toniná is a site located in the state of Chiapas, in the Ocosingo region. It delimits the western part of the Maya Lowlands (Becquelin et al. 1979: 1489). The city comprises five main sectors: the Acropolis, the Plaza, and the East, West, and Southeast residential groups (ibid.: 551). Toniná is famous for its stone sculptures, which represent mostly captives (ibid.: 639). The apogee of the city was between 593 and 805 AD (ibid.: 1489). The occupation continued until the Postclassic period (ibid.: 621).

Yaxchilán is located on the river bend of the Usumacinta, on the border between Mexico and Guatemala (Andrews 1991: 4). Piedras Negras is 43km away (Peiró 2015: 283). The city plan is arranged in a row following the shape of the river. Buildings surround interconnected plazas (Andrews 1991: 5). The site Yaxchilán

comprises the Main Plaza, Great Acropolis, West Acropolis, and South Acropolis (Peiró 2015: 286). The city was one of the most important during the Classic period and is famous nowadays for its sculpted monuments (Tate 1992: 1).

1.7.3.5) The sites of Belize

Altun-Ha is located in north-central Belize, 12km from the sea (Pendergast 1979: 7). The city comprises fourteen zones (A-N). The central core regroups zones A and B. The periphery is expressed through the groups C, D, and E (ibid.: 15f). Altun-Ha was occupied from the Preclassic until the Classic period (ibid.: 23).

Caracol is one of the largest sites in the Vaca Plateau, located in the Chiquibul reserve (Chase et al. 1991: 2; Chase et al. 2017: 186). The cities Hatzcap Ceel and Cahal Pichik were two independent sites that had grown and merged into a more prominent centre called Caracol (Chase et al. 2017: 189). Caracol comprises residential groups, marketplaces, agricultural terraces, and an epicentre (ibid.: 188). The core area consists of various buildings such as the A Group, B Group, C Group, Caana, South Acropolis, Central Acropolis, Northeast Acropolis, Barrio, Northwest Group, and Machete Group (Chase et al. 2017: 191; Awe et al. 2007: 167). Caracol is an interesting site for many aspects, but the focus will be on the depiction of women (Chase et al. 2017: 220). The city's history spanned from the Preclassic until the Terminal Classic time (ibid.: 195).

Chan is a farming community in Belize located 4km away from Xunantunich. It was settled for 2000 years (800 BC- 1200 AD) (Robin 2012: 1); however, its peak was around the late Late Classic period (ibid.: 34). Chan is composed of 274 households (ibid.: 9) including an E-group, a central group, and a plaza (ibid.: 11).

Lamanai is located in the inland of northern Belize (Howie 2012: 1). The site is composed of a compact central precinct surrounded by dispersed groups of residential structures (ibid.: 20). The city is famous for its long occupational history of more than 3000 years. It started in the Preclassic period and continued until the Colonial period (Song 2005: 6).

Xunantunich is located in the northern part of Belize, 6km from the city Buenavista del Cayo (LeCount 2010: 67). The city is organised around the Castillo

(ibid.: 67). The central precinct of Xunantunich is composed of the Castillo, Plaza A-1, A-2, A-3, B Group, C Group, D Group, and E Group (LeCount 2010: 68; Awe et al. 2007: 164f.). The site was occupied from the Preclassic until the Late Terminal Classic period (LeCount 2010: 2). The city has interesting data about the political system. Xunantunich lasted longer than other cities that disappeared due to the Collapse phenomenon (Watkins 2019: 249).

1.7.3.6) The sites of Guatemala

Aguateca is an archaeological site located in the Petén area, more precisely in the Petexbatun region (Emery et al. 2007: 69). The city is famous for its preserved artefact distribution in households due to rapid abandonment and destruction through fire (ibid.: 69). Aguateca is composed of a defensive wall surrounding the Palace Group and the Main Plaza. Elite residences such as the Granada Group, the Causeway Group, and the Barranca Escondita are located in the vicinity of the civic-ceremonial centre (ibid.: 72). The city was occupied from the Preclassic to the Late Classic period (ibid.: 72).

Nacimiento is a small village in the Hinterland of Aguateca, 2km away from its core area (Eberl 2014: 67). Until its discovery, it was believed that it should be the most prominent site of Aguateca's Hinterland, composed of around 227 structures, including 39 residential groups and three public groups. Nacimiento was specialised in maize agriculture (ibid.: 75). The occupational peak of the village was during the 7th and 8th centuries (ibid.: 81). In the continuity of the Nacimiento site is another small settlement called Dos Ceibas. It is composed of 113 structures (ibid.: 79).

Quiriguá is located in the Motagua Valley, 48km of Copan away (Andrews 1978: 93). The site has an L-shaped form (ibid.: 94). It is composed of a core area counting with an Acropolis Group, residential areas, a ballcourt, Great Plaza, South Group, and East Group. The city centre resembles the one from Copan (ibid.: 94). Quiriguá is famous for its plaza with sculpted monuments (ibid.: 95). The site was occupied from the Classic period (Jones et al. 2021: 27) until maybe into the Postclassic period. Not much evidence is found to end the city's history (ibid.: 33).

Seibal is a site located in the Pasión Valley, 50km away from Altar de Sacrificios (Andrews 1986: 47). It can be considered as a regional capital (ibid.: 50). The site core is composed of Groups A, C, and D. Group A is regrouping the North, Central, and South Plaza. Group C has two ballcourts and a round structure. Group D comprises small mounds (Andrews 1986: 49f.; Willey 1982: 5f.). Group B is a small group with various temple mounds. In the periphery of the central precinct are numerous house mounds (Willey 1982: 5). Seibal is famous for its carved stone monuments, reaching a total of 21 (ibid.: 5). The city was occupied from the Preclassic until the Late Classic period (ibid.: 6).

Tikal is located northeast of the Petén region (Shook et al. 1986: 5 report 1). It is one of the largest sites ever discovered until nowadays (Shook et al. 1986: 5 report 1). The central precinct is composed of the Twin Pyramid Complex (Shook et al. 1986: 9 report 1), Great Plaza, Central Acropolis, North Sector, Palace Group, Ballcourt (Shook et al. 1986: 8 report 11), North Acropolis, South Acropolis, Seven Temples, East Plaza (Shook et al. 1986: 18 report 11), West Plaza (Coe 1988: 74), Lost World (ibid.: 90), Group H and G with many palace-type buildings functioning as elite residence (ibid.: 93), Stela 23 Group, E Group, and house mounds are arranged in dispersed groupings (Shook et al. 1986: 17 report 1). Tikal existed from the Preclassic until the Classic period (Shook et al. 1986: 5 report 1; Coe 1988: 24).

Uaxactun is an archaeological site located in northern Petén (Ledyard Smith 1950: 1), 18km away from Tikal (Ricketson 1937: 29). The city is composed of different groups (A-G). Group A regroups the Main Plaza, the South Court Complex, and the South Terrace. Group B has a Main and East Plaza. Group C is composed of eight mounds. Group D regroups the Southwest Plaza, the Main Plaza, the West Section, and the Southwest Plaza. Group E has a Main Plaza and a North Court. Group F has a South and Main Plaza. And finally, Group G is composed of house mounds (ibid.: 32f.). Uaxactun was an important ceremonial centre populated from the Preclassic to the Classic period (Ledyard Smith 1950: 7).

Yaxha is located north of the lake having the same name (Andrews 1986: 75). The site is composed of the Acropolis Complex, twin pyramids, quadrangle structures, Maler Group, and the Plaza C (ibid.: 75). Yaxha was occupied from Preclassic until the Terminal Classic period (Castillo 2005: 7f.).

1.7.3.7) The sites of Honduras

Copán is located in the western part of Honduras and near the Guatemalan border (Hohmann 1995: 9). The site of Quiriguá is 49km north of Copán (Peiró 2015: 107). The site comprises two main centres: the Great Plaza and the Acropolis Group. Surrounding them are numerous amounts of mounds identified as residential complexes (Andrews 1978: 4). The city is well-known for its sculptured monuments (ibid.: 5). Copán flourished since the 4th century and lasted the whole Classic period (Núñez Chinchilla 1982: 1).

1.7.3.8) The sites of El Salvador

Joya de Cerén is a small Maya village located in El Salvador, in the Zapotitlan Valley. The settlement is known as the Pompeii of the Americas because of its destiny, which is similar to that of the ancient Roman city. Around 600 AD, the Loma Caldera volcano erupted and buried Joya de Cerén under 5m of volcanic ash. The site is arranged into four households, mostly residences (Sheets 2002: 1f).

The corpus used for this dissertation can be resumed in one flow chart.

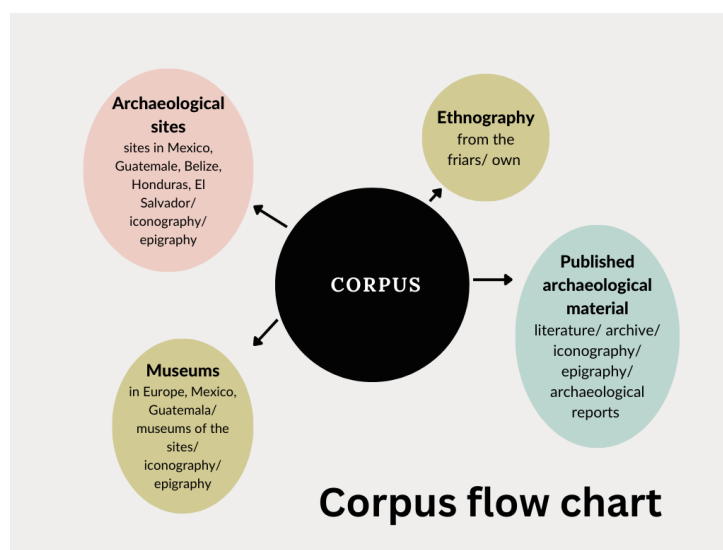


Figure 6: Corpus flow chart

1.8) Limitations

The present doctoral research was exposed to some limitations. First, the subject of investigation imposed some specific limitations. The core areas of cities and not the whole city were under examination. The core area was primarily investigated, and it is where the majority of architectural features are best preserved due to their construction method. The monumentality and stone materiality of the core areas enable us to assume that most people living there pertained to the higher social classes (elite, noble, royal) and were assisted by the lower social classes (servants, artisans, travellers). The time frame and the sites were chosen for their excavation, and restoration was realised there, enabling more detailed information than at other sites. Iconographical and epigraphical media had a peak during the Classic and Postclassic period. The availability of these data informs about activities that were practiced in the Maya civilisation. However, not every single activity was represented. The most prestigious and valorous roles of people were depicted. Rarely mundane and daily activities were presented. In addition, gendered activity representations are unequal. Women's roles were underrepresented in comparison to men. This doesn't mean that women were not present in prestigious societal roles, nor have archaeologists yet found every piece of the puzzle.

Second, the author's recollection of data was limited by some factors. Some of the chosen archaeological sites were not accessible physically. The use of literature only enabled us to analyse the architectural features of these sites. During the visit to the different sites, not every structure of the core area was free of access (access prohibited, not excavated) to examine the architecture and the inner room details. Moreover, the artefacts present and exposed in the museums were taken from the former archaeologists at the different sites. This results in a lack of context for these objects due to the imprecise work of the first explorers. The museums visited by the author could give a gross context for some objects, such as the site or the region in which they were found, but they do not indicate their location within a structure. The data from the excavation and restoration located in the archives are not easily accessible. Only a few could have been consulted by the author. The same case can be applied to the osteological work. Not every human remains and their associated

grave goods were well investigated during the excavations, and a small number were registered or even published. In addition, the ethnographical work of the author can be biased. Nowadays, the Maya community can respect and follow the traditions. Still, they were influenced by the Spaniards and the new way of life they imposed for centuries (syncretism), and they are also integrated into globalisation with the arrival of the latest technologies. Therefore, not every piece of information the author saw could be included without separating and analysing where it comes from (pre-Hispanic/ European/ Worldwide). The recollection of data from the epigraphy and iconography can be problematic. Indeed, they record important facts, but they might represent the normalised life of the Maya. This means that it could not show the real-life practices *per se*, but the ideal execution of an activity (the perfect one that they want to transmit). The normalised activities were also recorded mainly by masculine individuals, whose focus might lie in their sphere of activity, and the feminine world could have fallen by the wayside and, therefore, been underrepresented.

Third, some limitations resulted from the archaeological methods themselves. Some excavations were not as precise as others. Indeed, using new technologies such as LiDAR or magnetic field detection permits more precision than in the past. The registration and recollection of data can differ from one site to another, from one person to another, and from one decade to another. The various methods and naming of structures can mislead the reader. The architectural features and structures of the core area examined represent only the latest phase of construction. The function of a defined structure can vary over time. Furthermore, the more a structure had various construction phases, the more possible its shape and spatial organisation could change. Regarding the artefactual recollection, most of them were made of perishable materials, which makes them challenging to identify. The artefacts recovered in a structure depended on the excavated trench location and depth. The user of the structures cleaned their houses and spaces, so not many surface artefacts were identified. If some were found, they pertained to the last phase of use. In addition, rapidly abandoned cities inform of the artefactual distribution within a structure. However, when people left the site and their houses, they could carry with them their possessions and artefacts they needed. Moreover, the grave goods can give information about the dead person's role during their life.

This affirmation needs to be taken with care. The artefacts of the funerary contexts were selected and placed by the living people, pertaining or not to the deceased. The role of this dead person could be biased by the vision and understanding that other people had of him.

Despite these limitations, the present investigation focused on the available data to focus on its problematics.

2) Theoretical framework

The aim is to understand the main concepts and theories of power, dependence, interdependence, space, and gender. These concepts are the basic points of this investigation. Indeed, this dissertation wants to reflect on the engendered space of the Maya civilisation and women's role in society. Therefore, the mentioned concepts need to be understood in order to work with them in the further sections of this research.

2.1) Concept of power, dependence, and interdependence

The first subpart will be understanding and explaining the concepts of power, dependence, and interdependence. The purpose is to understand the status of relationships between men and women while executing their activities. To analyse them, the author divided them into two categories: (1) the definition of power and (2) the concepts of dependence and interdependence.

2.1.1) Power

The term power is known and used by everyone. But do we know what it means? In this category, the aim will be to discuss the meaning of power, how we can define it as a social process, and at least to look at the different dimensions of power and power relations.

What does “power” mean?

“Power” is a term that is often used, but are we aware of all its subtleties? To try to define the concept of power, four main ideas will be analysed: (1) subjectivity and intersectionality, (2) causal relation, (3) medium of communication, and (4) complex social network.

- (1) When we use the word “power,” we are never objective. This term has a connotation that can be positive or negative, but it can’t be neutral. In *The concept of power*, Guzzini affirms that power has, most of the time, a politicising issue (Guzzini 2005: 495). The explanation of the theories of power can’t be as neutral as it should be, at an academic level, due to the subjectivity of the concept of power (ibid.: 503). The conceptual analysis could be one of many solutions to reconstruct a neutral meaning of a problematic concept to avoid the wrong usage of the term and misunderstanding among people (ibid.: 500).

Power isn’t used as a single category when the concept is analysed. Intersectionality is needed to understand the multifaceted and co-constituted term of power (Evans 2013: 183). Intersectionality is a term that permits the analysis of different categories together as an interwoven concept. For example, intersectionality is commonly used with the categories of race, class, ethnicity, sexuality, and nationality (Lykke 2010: 67). For Collins, intersectionality means that different categories are put together to form “interlocking systems of oppression” (cited by Lutz et al. 2016: 2). Moser affirms that intersectionality is a useful process. Indeed, we can see if some categories can improve each other, but also if they create contradiction and if one takes control over the other (Lykke 2010: 84). For McCall, there are three ways to intersect the categories. First, there is the anti-categorical complexity, where the focus lies on the deconstruction of fixed categories. Then there is the intra-categorical complexity. Here, the analysis will be on the points of intersection within some social groups that have been forgotten in past research. And at least the inter-categorical complexity looks at the relationship between the different categories (Phoenix 2006: 27). We can have the impression that intersectionality might be the solution to avoid marginalisation, but it can create new exclusions (Lutz et al. 2016: 3). Intersectionality aims to decentralise social categories (ibid.: 7). Within Europe, many languages are spoken, so there is the incapability to create one intersectional discourse. For example, in Germany, the term “Rasse” remains mainly linked to the Nazi and colonial history. In the Netherlands, they

tried to use the word ethnicity instead of race. The problem is that they avoid facing their history (ibid.: 5).

- (2) “Power” can be seen as a causal relation. Deleuze sees “power” not only as a mode of differentiation or exclusion but also as a capacity to affect someone or something or to be affected by them (Evans 2013: 186). For Oppenheim, power refers to a causal relation between one action and another. He put into effect a probabilistic causation equation that will be discussed in the following points. To summarise, in a few words, his equation states that person A does an action x because person B influenced him to practice x (Guzzini 2005: 501). “Power” does not show the will of person A, but of person B. Person B obliges person A to make the action that can fail or succeed (ibid.: 506).
- (3) “Power” can also be seen as a communication medium. Contrary to point (2), Luhmann sees that “power” resides in the communication and not in the action. The causality lies in the communication (Guzzini 2005: 505).
- (4) Moreover, power can be expressed as a complex social network. Foucault sees that modern power is more often distributed among a social network rather than in the possession of a dominant group (Evans 2013: 183). Gramsci observes the power as a regression, coercion, or negation (Manokha 2009: 430). He makes the distinction between two rules. On the one hand, it is based on coercion, and on the other hand, it is based on consent (ibid.: 449). The resistance after Foucault emerges within a social network. A few examples of resistance outside a group are known, but only when an individual puts pressure on himself alone (Evans 2013: 184).

How can we define “power” as a social process?

The next category will deal with the definition of “power” as a social process. Five points are going to be analysed. First, we will see that “power” is part of the theories of constructivism. Then, this term can be ambiguous even for researchers.

Next, we will see that “power” is everywhere in our lives. The following idea will be to look at how it is centralised. Finally, we will discuss its mechanisms.

(1) Let’s start with the concept of “power” as part of the theories of constructivism. What does constructivism mean? It means, in short, that the social world is not natural; it can’t be found in nature. Humans build up the social world with its rules and behaviours (Guzzini 2005: 498). Constructivist theories tend to see power as agential and intersubjective (ibid.: 507). This part of the power and its agency will be discussed in more detail later in this dissertation. Constructivism is a reflexivity on how knowledge and social reality can affect each other. Two reflexivities are taken into account. On the one hand, there is the micro-level. At this level, we classify and name people who interact with others and try to understand how people perceive those people. After Hacking, there is a looping effect. On the other hand, there is the macro level. For Huntington, this means that there is a clash of civilisations. The law of the jungle is the only one used for the reflection at this level (ibid.: 499).

(2) The concept of power is not fixed. Therefore, not every scholar is satisfied with one definition or theory. “Power” remains an ambiguous term. In *Symbolic interactionism and the concept of power* by Dennis, we can see that two opposing theories of power exist. One theory analyses “power” as a structural inequality of resources. The other theory identifies “power” as an interpersonal phenomenon. So, we can deduce that one focuses on the inequality of materiality and the other on social relationships (Dennis et al. 2005: 205).

(3) The next category of this investigation will deal with the omnipresence of power. Foucault affirms that “power” is everywhere, not because everything is linked to it, but because it comes from everywhere (Dennis et al. 2005: 209). “Power” is produced from one moment to the other by individuals or groups. They not only create it, but they also perpetuate and repeat it (ibid.: 192). Plumer uses symbolic interactionism to show the omnipresence of

power in our lives. For example, he took the schooling process to understand the functioning of society as a whole. In a few words, the teachers represent the dominant persons who participate in decision-making processes. The students are the population of a country. The interaction and behaviour between the teachers and the students, and between students, are similar to those in society (ibid.: 192f.).

(4) The next step will be to look at the centralisation of power. For Hobbes, “power” “is centralized and focused on sovereignty” (cited by Sadan 1997: 34). Sovereignty means, after Clegg, that a person has the will to have or possess power. He seeks after power (Dennis et al. 2005: 210). The will of a person is subjecting the wills of others (Sadan 1997: 34). For Giddens, “power” is a social construct that is created, exercised, influenced, and limited by human agents (ibid.: 38). Humans created the notion of power to subject the others to make their will come true. In society, “power” can be used in a different way. For example, in a democracy, the dominant group's power will be less intense than in an authoritarian regime. For Becker, the power differentials lie in the ability of some persons to make rules and apply them to others (Dennis et al. 2005: 199). For example, the powerful people call the things how they want to. The others have to use the same words as them, at least in public, because in their private life, they could use their own (ibid.: 200). So, some people seek power and make their will universal even if the others don't agree with them. “Power” is centralised and lies in the hands of a few people.

(5) Few people have power in their hands, and others do not. How can they achieve it? We will now analyse the different power mechanisms. First, some people have power because of their strength. Burke sees this kind of power as terrific (Burke 1833: 70). Second, people could use power as an ideology. For Marx, ideology means a “distorted form of knowledge” or “a defective way of thinking” (cited by Manokha 2009: 446). This means that a person or group of people has power and imposes their way of thinking, which doesn't express normal behaviour. Throughout history, we can give

examples of people who created an ideology, such as Hitler in Germany, Mussolini in Italy, and Franco in Spain. The ideology only benefited the ruling class at the cost of the rest of the population (ibid.: 447). Third, people use power as a strategy to gain privilege. Machiavelli sees power as a means that is used for strategic advantages and/or privileges the one who has power (Sadan 1997: 34). “Power” can also be seen as a valuable tool for economic and authoritarian interests in possession of the dominant group (Weber) (ibid.: 35). Dahl and Lukes understand “power” as an ability to control the mind and the action of others. This means someone can make someone do something they wouldn’t have done. The powerful person sets into the mind of the other one the action he needs to do, even if it’s against his own good (ibid.: 36f.). Fourth, a further power mechanism could be to discriminate and oppress others. Not everybody can take part in the decision-making processes. Gaventa sees a lack of conflict as a sign or a consequence of the power mechanisms (ibid.: 39). There is also the existence of an old saw: “divide to conquer.” This means that if you want power and to conquer people, you need to divide them and, in this process, also discriminate against some categories of the population.

The different dimensions of power and power relations

The next part of this category will be to analyse the different dimensions of power and power relations. The focus will first be on the various dimensions and circuits of power, then the agency of power, and finally the state of powerlessness.

In *The theories of power* by Sadan, we can see that there are three different dimensions of power. There is the overt dimension of power. “A’s power over B is manifested to the extent that A can make B do something which B would not have done, had it not been for A” (cited by Sadan 1997: 40). This probabilistic causation means that a person A makes a person B doing some action that B would not have done from his own will if it wasn’t for person A (Guzzini 2005: 501). The second dimension of power is the covert one. Here, the focus lies in the participation of the decision-making processes: who is the leader and who is excluded (Sadan 1997:

41). For example, in a political party, there is always a leader, a head who can be elected for the presidency. This leader is known to the population. The followers are people who share the same ideas. The excluded persons are people with different ideas who can be integrated into another political party. The third dimension of power is called the true interest. It means that “B does things that he would not have done had it not been for A because A influences, determines and shapes B’s will” (cited by Sadan 1997: 42). The person A has the power over B in the action he does, but also in his way of thinking. For example, this could happen in a dictatorship. A dictator says what people have to do and what they have to think through his ideology. However, a rebellion can occur if the power relations are shifting. Suppose person A loses power and person B gains power. In that case, the relationship between the two persons is interchanging (ibid.: 44). Resistance to power can be foreseen and eliminated before it can be constructed. Indeed, the resistance needs time to take place, and it requires organisation. This can be foreseen and eliminated before it has the time to be in place and active. Mann called it organisational outflanking (ibid.: 46). For example, during the Second World War, France had an active resistance network. They had a leader named Charles de Gaulle who, in a coded language, asked the French population to resist the invaders. They organised some sabotage actions. The Germans could prevent some of these actions and sometimes engage in organisational outflanking. Nietzsche believed in a genealogical method to understand the power dimensions. He analysed the present and went backward in time until he could find a difference. Once he discovered a difference in the process, he went again to the present to understand the transformation (Manokha 2009: 433). From his point of view, Foucault does not look at how the past shaped the present events, but at how the past differs from the present. For him, knowledge is always political because it can’t exist without power relations (ibid.: 434).

Clegg analysed that there are not only power dimensions but also power circuits. He also identified three different kinds. First, there is the overt circuit of power. This means that “A activates resources and means and influences B in a way in which B would not have acted were it not for his relations with A” (cited by Sadan 1997: 49). Here again, we have the situation that a person A has power and influence over another person B. Second, the social circuit of power represents the

rules that were created and gives some meaning to membership and belongings (ibid.: 49). For example, the inheritance of some plots of land is divided equally between the family members. In the past, this was not the case. The primogeniture was the rule. So, the first child receives everything. The law can accentuate the power relations between family members or mitigate these relations within the family. Third, the systemic economic circuit of power means that “both material and non-material resources are created” (cited by Sadan 1997: 49f.). For example, in a kindergarten, the children have to do what the teacher says. The children can learn material things, such as constructing a brick castle, and non-material knowledge, such as some songs.

The following part will be to analyse “power” and its agency. As we saw in the first part of this chapter, the constructivist theory sees “power” as agential and intersubjective (Guzzini 2005: 507). “Power” is a relation between one person and another or between one person and an object. Having power also means being responsible for the event that takes place or for the person who is influenced by the powerful person.

“When we see the conceptual connection between the idea of power and the idea of responsibility, we can see more clearly why those who exercise power are not eager to acknowledge the fact, while those who take a critical perspective of existing social relationships are eager to attribute power to those in privileged positions. To acknowledge power over others is to implicate oneself in responsibility for certain events and to put oneself in a position where justification for the limits placed on others is expected. To attribute power to another, then, is not simply to describe his role in some perfectly natural sense, but is more like accusing him of something, which is then to be denied or justified” (cited by Connolly in Guzzini 2005: 510f.).

In this quote, Connolly wants to understand what “power” is and how it is influenced by agency (ibid.: 511). Moreover, the agency is not discernible from power. Agents exercise power over others and themselves (Manokha 2009: 430). However, power can’t be understood only through its agents. The persons are the effect of power because the agents (object and subject) can be interchangeable (ibid.: 435). For example, a president is powerful only during his presidential term. After that, he becomes a normal subject again. Another person takes his place.

The term positive power means that his position of power enabled him to change his behaviour and transform himself voluntarily (Manokha 2009: 435). Power relations are dependent on culture, place, and time (Sadan 1997: 57). It is a calculation, planning, manipulation, intrigue, and coordination of human agents (ibid.: 59). Sadan analysed that “power” acts on oneself, but also the whole community. He called it the anatomy-politics, which disciplines one’s body, and the bio-politics, which controls and regulates the population (ibid.: 57). In *Symbolic interactionism and the concept of power*, Dennis divided it into micro-sociological process (in reference to the single body of an individual) and macro-sociological process (in reference to the community) (Dennis et al. 2005: 195). Interactionism depends on who is being examined and which role they play in the social structure (ibid.: 197). For Giddens, power means human agency. “Power is integrated within a complex social practice, in which human agency has structural qualities, and the social structure is part of the human activity that creates it and ensures its continuity” (cited by Sadan 1997: 67). For him, if there is no power, there is also no human agent (ibid.: 68).

The last part will deal with the state of powerlessness. It is essential to understand how the concept of power works, but for this dissertation, the state of being without power is also an important fact to analyse. Powerlessness could be explained through ignorance, isolation, and division. Ignorance means that a person doesn’t know the rules of the society where they live (Sadan 1997: 47). Isolation means that a category or a class is a minority within a population. They can’t take part in the decision-making processes and are therefore not well informed of the situation of the country they are in (ibid.: 47). Division means that the powerful people want to divide the society into categories to exclude and isolate some of them. People can’t come together to react (ibid.: 47). For example, in the Ancient Roman Empire, the population was divided into different categories. Some had more privileges than others. With the division of society, the enslaved people were forced to work, and they were excluded from political life.

To summarise the concept of power, the author realised the flow chart as follows.

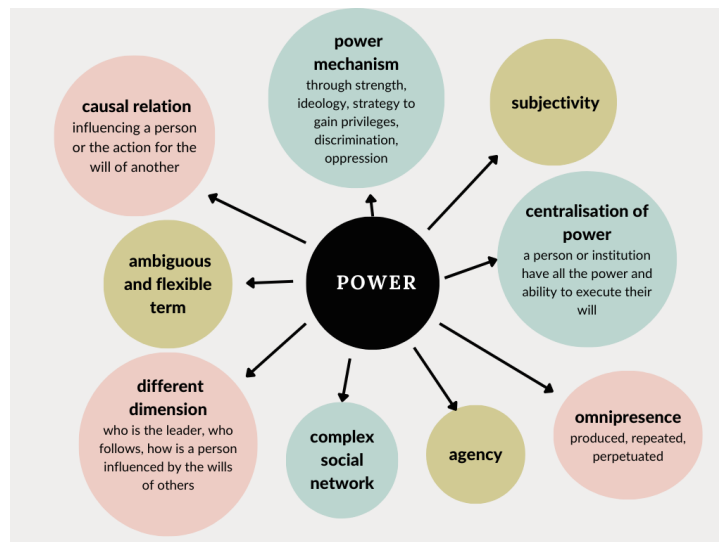


Figure 7: Flow chart of power concept

2.1.2) Dependence and Interdependence

After analysing the concept of power, we saw that one person has an influence over another. Power relations are linked to the concept of dependence and interdependence. That is why we will look at these two terms in this part. In the literature, not many publications have investigated this effect. They show dependence and interdependence within the concept of power, but only rarely on their own. For this dissertation, the article by Fine *Dependence, interdependence, or inter-dependence? Revisiting the concepts of 'care' and 'dependency'* will be the starting point. The term dependency has a negative and cold meaning in every language. However, “dependency” is a typical social condition (Fine et al. 2005: 605). The dependency concept can be ideological and social (ibid.: 606). Wilkin affirms that people created the situation of dependency (ibid.: 607). Durkheim says that “social cohesion occurs because one person is always dependent upon another to achieve a feeling of completeness” (cited by Fine et al. 2005: 612). Indeed, let's take the example of the dictatorship. The members of the regime are the leaders, and the population depends on their will (Winnibeck et al. 2021: 12). One actor can not only control the action but also access another person's resources. Because the institution supports this asymmetrical dependency, people can't go away or protest (ibid.: 2f.). It is also a social construct because an agent is always involved in a dependency relationship (an agent with another one or with an object). Fraser and

Gordon identified four types of dependency: economic, socio-legal, political, and moral or psychological (Fine et al. 2005: 606). For Kittay, “dependency” can be resumed with the three C’s: care, connection, and concern. Care means helping others with their vulnerability. Connection can be understood as building up ties between people. And concern is employed here as a way to be affected by the other (ibid.: 613).

“Dependency” is accepted differently within society's private and public spheres. In privacy, “dependency” permits bringing people together (Fine et al. 2005: 605). For example, the elderly mother lives in her daughter's house, where she can receive all the help she needs, such as cooking, cleaning, taking care of her, and so on. The mother depends on her daughter, and both are linked in the private sphere. For Tronto, “dependency” is a “complex, life-sustaining web of connectedness between people” (cited by Fine et al. 2005: 607). In public life, to be dependent on someone can be seen as shameful (ibid.: 606). For example, if two older women are in the supermarket and one needs help from another person and the other does not, the one who needs help can feel ashamed. Autonomy and interdependence are not necessarily the contrary of dependence (ibid.: 602). A person dependent on another needs the help or assistance of someone else (ibid.: 608). Sometimes, it could be true that dependence involves reciprocity and obligation (ibid.: 609). For example, the payment of taxes was instituted to help people in need or to enable people to diversify their labour activities. There is a situation of dependency with reciprocity and obligation. However, in some dependency relationships, power inequality could occur (ibid.: 613). This means that one person has more power over another agent who is dependent on them.

For Fine, “independence” means “not as being able to perform activities for oneself without assistance, but as being able to exercise control over whatever help is required in order to achieve chosen goals and objective” (cited by Fine et al. 2005: 610). For example, in the Paralympics, a blind person can run or ride a bike. She will need a guide, which means a dependent relationship, but she can decide if she wants to take part in this competition or when she wants to train. She is independent

and does what she wants to. Shakespeare sees “interdependency” as a universal and positive condition of humanity (ibid.: 611). “Interdependency” can be understood as a result of a situation with more than one relation of dependency (ibid.: 612). Kittay qualified it as an “exchange-based reciprocity” (ibid.: 612). For example, in a school, the teachers are dependent on the students, and the students are dependent on the teachers. One could not exist without the other. These two-based dependencies can be seen as an interdependency relationship.

To conclude, the author created a flow chart to define the concepts of dependence, independence, and interdependence.

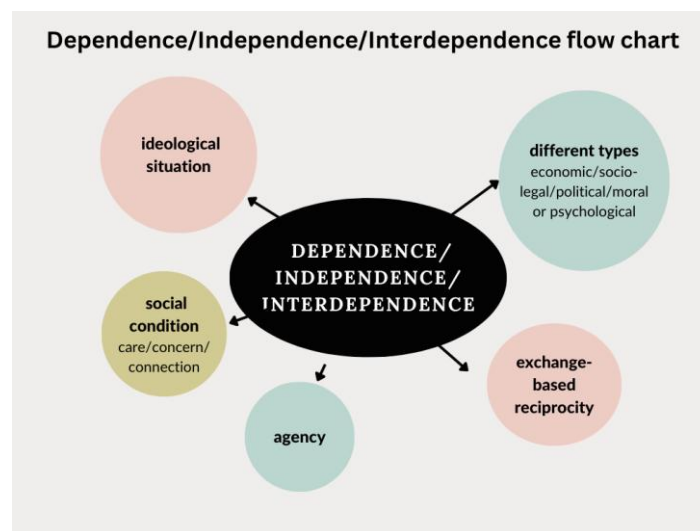


Figure 8: Flow chart of dependence/independence/interdependence concepts

2.2) Concept of space

In the next part, we will discuss the concept of space. Everybody and every day, we are evolving in a space, but how can we define it? This dissertation used a significant literary work about the living space called *Referential practice: language and lived space among the Maya* by Hanks (1990). People can speak together and understand themselves if they share the same spatiotemporal orientation. Time permits us to situate an event in its duration. It can be linear when the happenings occur once so that they have a beginning and an end, or cyclical when the events are a combination and repetition of more than one happening (Voss

2015: 39). Time is also useful to define an event in space (ibid.: 45). For example, if a person is evoking a specific battle that happened during the Second World War, then the location it took place will be known. Here, we can see that time always involves a place. Hallowell affirms that the spatiotemporal orientation can be shared through culturally created reference points or by an individual's conscious position in a space (Hanks 1990: 296). The bodily space is a “centred system, in which spatial relations are defined relative to activities and speech events” (cited by Hanks 1990: 295). The cardinal points are objects that are expressed in relation to “fixed axes and dimensions” (cited by Hanks 1990: 295). The orientation in space, after Bourdieu, Cicourel, and Evans, is always linked to the actor and his knowledge and experience in that special space (ibid.: 296). For example, a person who goes from city A to city B will be lost in city B. However, after evolving in city B, he will be able to know that space through his experience and knowledge. The cardinal directions are made by nature, whereas the cardinal places are created by the actors and the society (ibid.: 299). For Haugen, there exist two kinds of orientation. On the one hand, the proximate orientation. This means that the orientation is made by observation, a space we can see with our eyes. On the other hand, the ultimate orientation. This means that space is culturally constructed through the practice and travel of a person (ibid.: 302). It is a “space of cultural geography” (cited by Hanks 1990: 303). Specific places or buildings in a space can be used as cardinal points (ibid.: 298). For example, a church or a park can be used as a meeting point for people. It can also be used to describe the way to a foreign person more easily.

For the Mayas, the cardinal directions were called like this: *lak'in* (east), *xaman* (north), *cik'in* (west), and *noohol* (south) (Hanks 1990: 298). They believed a whole space comprised four corners (cardinal directions) and a centre (ibid.: 299). For example, the site of La Milpa was planned as a cosmogram. The core area served for political issues. Four areas of the city were placed in the cardinal directions. Three had a ceremonial function, and the north group had administrative purposes (Breton et al. 2003: 106f.). The centre can also be represented by the bodily space of the actor (Hanks 1990: 302). For example, if a person is standing in a square room, he will be the one to acknowledge the space; therefore, through the ego perception, the centre will be the actor itself. The perception of space and Earth from the Western view differed from the Maya view. For them, the earth was a flat

plane surface located in the centre of a globe (Figure 6). Winds surrounded this globe. Atop the earth were the seven atmospheres, and at the highest point was the sun. Beneath the earth were two layers of water and fire, and at the lower end, the moon. The north was not the cardinal north as the Western countries are doing, but their north was the east. The male sphere was believed to be the upper world and the sun, and the female sphere was considered to be the underworld and the moon (ibid.: 305).

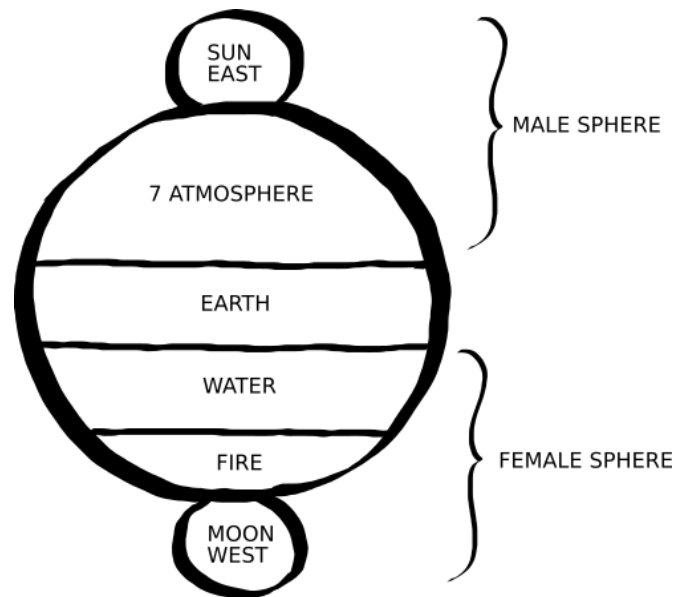


Figure 9: Schematical representation of the space in Maya beliefs (Hanks 1990: 305), drawing made by the author.

Space can be seen as realistic or imaginary. An imaginary space is making connections between the real world and beliefs. For example, water could symbolise the essence of the underworld, but it could also be the place where the ancestors originated. This water could emerge through caves, mountains, or lakes. For the Maya, the temples were viewed as mountains and, therefore, as the ancestors' birthplace. To reiterate this belief, various rituals were taking place in temples to legitimise the rulership of people through the ancestral overview (Breton et al. 2003: 51). Caves also have a cosmological meaning. They can be used on the one hand for a ceremonial function (rituals for gods, home of the gods, origin myth, underworld) and/or on the other hand for a domestic function (recollection of water, shelter, depository of food and objects of value) (Breton et al. 2003: 112). In places devoid of caves, individuals created artificial caves, which could have been found in the Isla Topoxte (Breton et al. 2003: 125). Ballcourts, with their unique shape, are structures that reproduce the Maya world. Indeed, the playing alleys are

sometimes sunken. This led to a retention of water during the rainy season. The standing water can symbolise the water that mirrors the underworld. In addition, the sky and the celestial realm can reflect on the same watery surface from the ballcourts. Consequently, a person standing in the alley can perceive at the same time the three levels of the world (Breton et al. 2003: 84).

Moreover, we can try to hierarchise the space from natural to cultural, such as natural (forest), rotation cultivation (milpa), permanent cultivated (*parcelas*/orchards), and cultural (town) (Hanks 1990: 307). The forest is a natural space outside the city's cardinal orientation or inhabited space (ibid.: 306). The agricultural land is placed between the total social and total natural space (ibid.: 307). The organisation of a space can be compared to the creation of a milpa. First, a person has to select a plot for the milpa and clear the place (ibid.: 355). Then, he needs to delimit the plot through stones (ibid.: 356). These stones are put at the corners and the centre. This process permits us to order and cure the earth before working on it (ibid.: 357). The agricultural cycle usually starts in August. From August to December, the forest or the cultivated plot is cleared. The vegetation that was cut needs to dry (ibid.: 353). Then, from March to May, this dried vegetation will be burnt. After that, people plant the seeds and await the rainy season. They can harvest once the crop has grown (ibid.: 354). Pressures linked to environmental factors (drought, inundation, etc.) and geological ones (non-fertile soils, accessibility to water, etc.) can appear and affect a social group differently, which may make this group react and behave (raised field, specific crop growth, etc) in a unique way to this pressure (Breton et al. 2003: 447). In addition, in a town, we can see that people have a residential space. Domestic space constantly evolves because it gives back the cultural order and is a place for communicative events (Hanks 1990: 314). A domestic space can be used by a nuclear family, by different families with shared brothers, or by families without kin relations (ibid.: 329). The kitchen can be seen as a house where female activities occur (ibid.: 322). It is an open space to the courtyard, composed of a fireplace. There, food is consumed and prepared, and the water is stored. It is hidden most of the time from the outside of the house (ibid.: 329). A house or city's perimeter delimits the inner and private space from the outer and public space (ibid.: 324). Inside the house, people sleep, dress, receive

visitors, and store valuables. These activities are seen as private and confidential (ibid.: 333).

The notion of space can be discernible within a language. For example, ‘not long ago’ means that the protagonist is in the same space, but that time has passed. Whereas ‘a while ago’ implies that the speaker changed his location and time passed. Another example could be ‘here’ and ‘there.’ ‘Here’ is closer to us than ‘there’ (Hanks 1990: 396). Therefore, a discourse can be, on the one hand, inclusive. This means that the speaker includes himself in the space around him (ibid.: 406f.). It refers to the space between the speaker and the “near side” of an object or place (ibid.: 409). The near side of an object can be qualified as a cardinal direction or landmark. Behind it would be the outside of the space (ibid.: 410). The inclusive space is often related to the speaker's experience (ibid.: 414). This means that if a person circulates between city A and city B, the distance between the two will usually be less important in that person's eyes. The space will be seen as inclusive. However, if a person stays in city A, city B will be far away from his routine, and the space will be excluded. The discourse will be, on the other hand, exclusive. An exclusive space can't be seen. It is beyond the ‘here’ and unspecific (ibid.: 416). This space is unfamiliar because he never went there, or it is not part of his daily experience (ibid.: 420).

The concept of space could be resumed with the help of the following flow chart.

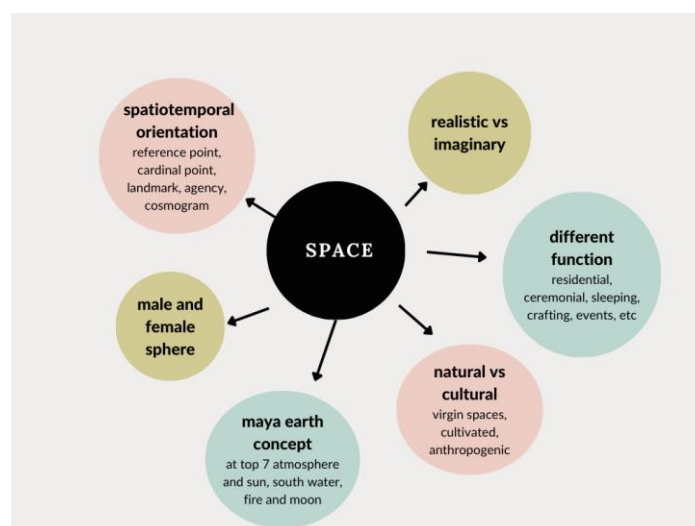


Figure 10: Flow chart of space concept

2.3) Concept of gender

A further concept to be analysed will be the term gender. This dissertation defines gender with four categories: cultural sphere, performativity, body, and sexuality.

2.3.1) *Cultural sphere*

We will start with the category of the cultural sphere. Under culture, this investigation regrouped all the aspects of human society, their institutions, and their beliefs. In this broad category, we will focus on a few themes to define gender, such as (1) gender as a social creation, (2) gender as time and culture limited, (3) gender identity, (4) gender intelligibility, (5) structuralism opposition of nature/culture, and (6) the symbolic order.

- (1) We will start with the aspect that gender can be defined as a social creation. In everyday life, having a gender is something that we find natural. We perceive in few seconds if the person is a man or a woman (Connell 2013: 21). Every person has a gender (Lips 2014: 1) and comes into being in a constructed social world that he or she never chose (Butler 2004: 3). Since the emergence of the Neanderthal, a person can be qualified as a biological being and a social individual (Lévi-Strauss 1969: 3). The social relationship is the foundation stone of “gender” (Connell 2013: 28). Every day we are facing the gender ideals created by society. “We swim in a cultural sea of gendered images,” which “pushes individuals to conform to those images” (cited by Lips 2014: 13). We can define “gender” as the social difference between men and women. It can be linked to the biological sex difference, of which he can construct further norms (Connell 2013: 27). “Gender” might not exactly be what one is or has. It determines the definition of masculine and feminine, but it can also deconstruct these notions (Butler 2004: 42). The concept of woman is a category created by social structures (Pollock 1981: 113). A plurality of masculinity and femininity exists, which makes it complicated to understand “gender” (Connell 2013: 135). Culture and society are responsible for the roles and rules people must respect and assimilate into (Lévi-Strauss 1969:

486). The roles, for example, can be acquired through education in the family, at school, or through media and relations (Connell 2013: 133). For Lévi-Strauss, the cultural rules are universal (Butler 2004: 45). This means, for example, that around the world, the binary gender organisation is the rule. Only a few civilisations divide “gender” into more than two categories. “Gender” intersects with race, class, ethnicity, and so on, which makes it impossible to talk about “gender” without the political and cultural apparatus (Butler 2006: 6). Therefore, what a subject and its gender is, is always dependent on the social construction he is living in (ibid.: 15). Knowledge and power are linked together to establish the social world (Butler 2004: 27). Having a gender means that other individuals will exclude someone for being of the other gender category for example. The social and political institutions used “gender” as a political and powerful tool (Butler 1993: 3 and 116). Gender is a political tool that can justify inequalities and oppression (Connell 2013: 25). The society creates the subjects who are living there. Foucault sees society as a mechanism to control and regulate people (Butler 2006: 4).

- (2) The next point will deal with the periodicity of gender. “Gender” is created by society and culture. However, not every culture sees “gender” in the same way. The definition of “gender” can vary from one nation to another, but also within the history of the same nation (Evans 2013: 38). “Gender” is historical, which means that every set of events permits the shaping of gender categories. The modelling and remodelling of gender categories will never end. The collective activity of people tirelessly creates new possibilities (Connell 2013: 123). The social and economic situation of a state through history can influence the relationship between men and women and the relationship with their children, and so on (de Beauvoir 1976: 62). “Gender” can be qualified as a dynamic system where internal and external transformations can occur (Connell 2013: 126). Through time, the concept of gender changes with the shifting of social beliefs due to a different understanding of the body (Butler 2004: 9f). For example, we can see a change in society’s ideals through fashion. Women had to wear skirts exclusively, and men wore pants. Nowadays, women wear pants in the majority, and some men may wear skirts. The beliefs of the society about the gender categories are moving and evolving. Moreover, Simone de Beauvoir qualifies the term “woman” as a term in process. The social organisation is an evolution; it doesn’t have a beginning or an end. This is the

same with “woman” (Butler 2006: 43). Because the process is not fixed, the term “woman” in the future can mean “a being whom neither man nor woman truly describes” (ibid.: 162). It is something that can happen, as already seen in linguistics. A word can mean something in period A of time and something else in period B. Not all cultures see the norms for femininity and masculinity as similar (Lips 2014: 19). The cultural difference is the result of differing beliefs by groups who are seeking a political strategy (Evans 2013: 39). Stereotypes are unwritten rules that can influence the expectation of an individual to act according to what the society wants a man or a woman to look or be like (Lips 2014: 25). Stereotypes are how men and women act in a given culture. A change in gender stereotypes is linked to a change in politics, economics, or culture (ibid.: 24). Through the media, people easily accept stereotypical beliefs about gender and rely on them as reality (ibid.: 28).

- (3) We will now focus on the gender identity. One’s identity is not given from birth but from society. The culture we were born in says whether we are a man or a woman. We will receive an education that will enable us to recognise ourselves as a he or as a she (Pollock 1981: 132). People have a social identity through the attribution and recognition of a gender (Connell 2013: 145). Gender identity is an ideology in which people develop into a binary gender pair – masculine and feminine- that are distinct and have opposite qualities (Evans 2013: 107). Since the Antiquity era, we can see that gender identity has existed. The Greeks believed that women (*genos gynaikon*) were created apart from men. That is why they differ in function and norms (Brooke 2019: 18). “Gender” divide humanity in mostly two categories of individuals whose clothing, face, body, activity, and interest are different (de Beauvoir 1976: 16). “Sophie doit être femme comme Emile est homme, c’est-à-dire avoir tout ce qui convient à la constitution de son espèce et de son sexe pour remplir sa place dans l’ordre physique et moral”¹ (cited by Rousseau 2009: 472). In a few words, this means that a woman needs to have all the qualities of the feminine constitution to realise her task in the moral and physical order established by the culture. A mother can be seen as the pinnacle of femininity, whereas the independent and alone woman is seen as lacking the attributes of a woman (de Beauvoir 1976: 261f.). They also need to have different moral qualities. Men, for

¹ “Sophie needs to be a woman as Emile is a man, meaning that she should have everything that constitute her species and her sex to fulfil her place into the physical and moral order” (Traduced by the author)

example, need to be strong and active, whereas women need to be weak and passive (Rousseau 2009: 473). Society created and defined the masculine and feminine, but it also regulated sexuality (Pollock 2003: 18). Society wants a uniformity of gender identity through heterosexuality (Butler 2006: 42). We will come back to sexuality in point 2.3.4. Gender identity is the result of the notion of gender. For Butler, identity occurs through the repetitive act realised in the social binary world of gender (Evans 2013: 109f.). It can happen that sometimes people of a specific gender category identify themselves with another and desire to live as another gender. This psychological disorder is called gender dysphoria (Butler 2004: 5). In *Gender Trouble* by Butler, we understand that the identity is constructed and that the binary identity tends to fail because the repressed people of the social order re-emerge more and more through time (Butler 2006: 38). Moreover, there is a gender asymmetry. This means that gender can be a secondary characteristic of a person and/or the notion of a person expressed through a masculine construction of the language (ibid.: 16). The notion of person or subject is called into question with the emergence of new gender categories. They are persons, but they do not conform to the defined gendered norms of personhood (ibid.: 23). The gender identity of a person corresponds only to an aspect of the person. For Stoller, it is only an involvement in the gender relationship and the sexual practice (Connell 2013: 147). The gender identity of the person is located on the inside of their body. Its consciousness determines if the individual is a he or a she. The biological body does not count for the identity. However, it will count to show the real identity of the person (Lips 2014: 17). For example, if a person has a biological body that identifies him as a man, but his consciousness determines him as a woman, and if he acts as the women in the cultural world, his gender identity will be feminine. People are different, but we have the same soul (Gandhi). For Freud, a person's self, the "I," is a mental instance with which we can interact with the external world and where the consciousness lies (Connell 2013: 146). For Foucault, gender identity was a social tool to order and hierarchise society (Butler 2006: 32). Language creates disparities and a hierarchy that became a social reality (ibid.: 150). "Language is symbolic of the patriarchal culture in which the phallus is its signifier power" (cited by Pollock 1981: 132). Language is masculine. For example, no woman can use the "I" as an ungendered and universal being. A woman must be gendered, and we must differentiate her from a man. We can't understand a woman by herself, and we need to compare her with men. We qualify the Man as all the persons, the universality of humankind (Butler 2006: 149). We can think

of the man without the woman, but when thinking about the woman, we need to keep the man in mind. He is the “Subject” and she is the “Other” (“Il est le Sujet, il est l’Absolu: elle est l’Autre”) (de Beauvoir 1976: 18). The act of thinking and acting have their roots in the phallus. The women are deprived of the phallus. Therefore, they also lack both qualities (ibid.: 261).

- (4) After analysing gender identity, we need to understand how these identities are recognised in the social world. A person is intelligible only because she has a gender that conforms to society's standards of gender intelligibility (Butler 2006: 22). People with unintelligible gender are not qualified as human beings *per se* (Butler 2004: 30). A person needs to be recognised; it is her desire. To be intelligible means to be part of the society (ibid.: 33). Hegel affirms that “to persist in one’s own being is only possible on the condition that we are engaged in receiving and offering recognition” (cited by Butler 2004: 31). Only intelligible people can be oppressed (ibid.: 30). People construct themselves as masculine or feminine, because they need to fit in the categories of the gender identity to have a place in society (Connell 2013: 23). Being a subject of the society means, for Haraway, having an identity and being recognised as such (Jarvis 2000: 768). As we saw earlier, “gender” is a tool to regulate people, and this is a condition of social recognition for individuals (Butler 2004: 52). A body is sexed before being gendered. Butler, Foucault, and Wittig agree on the fact that the attribution of a sex to the body permits one to understand the materiality of it (Jarvis 2000: 767). This means that sex can be seen; it is something that we will generally have from birth till the end of our lives. In comparison, gender is invisible if we don’t know society's ideals. For example, femininity is a gender category that cannot be found in nature. It is socially constructed and repeated through time. We often associate feminine behaviour and attributes with women (Evans 2013: 59). Irigaray affirms that women are the guardians of the blood. Indeed, women bring to life their sons but also secure their death because every living being has the destiny to die. They come from the womb of the mother and die in the womb of the earth, which metaphorically is part of the feminine world (Brooke 2019: 164). Simone de Beauvoir says that “on ne naît pas femme, on le devient”. We are not automatically women when we come to the world; it’s society and its ideals that define what gender we are going to be (Connell 2013: 22). The female category of gender is incomplete. If we cite the list of the feminine identities that we recognise, the

end will always finish with the exhaustion mark: etc. (Jarvis 2000: 767). Biologically, we only have people who don't have a phallus, but in social beliefs, this might not be the case. We have a multitude of possibilities for understanding and recognising femininity.

- (5) Lévi-Strauss developed the theory of the structuralism opposition of nature/culture (Butler 2006: 47). Nature has an egalitarian reciprocity rule. It receives as much as it gives away. Culture, on the contrary, has an asymmetrical scheme. It receives more than it gives away (Lévi-Strauss 1969: 30). The culture defines the norms and the rules (ibid.: 32). This means that if a culture receives something, it will determine its rules and modalities. In nature, this is not the case (ibid.: 31). For example, during the Conquista, the Spaniards received cacao from the indigenous people. Once they received it, they changed their trade routes, and the European market policy shifted to Spain's hegemony. For Wittig, the idea of nature is only created with the intention to control society (Butler 2006: 159). The binary opposition of nature and culture favour the emergence of a hierarchy, where the culture imposed the rules on nature (ibid.: 48). However, for Descola, some American cultures could not dissociate nature from the culture; both were seen as one entity (Fossier 2006: 3). For Rousseau, the natural rules determine the interdependent relationship between men and women. "Le plus fort est le maître en apparence, mais en réalité dépend du plus faible". This means that the strongest is only strong physically, but in reality, he depends on the weakest (cited by Rousseau 2009: 475). For example, in nature, a tree is strong. He can resist the extreme temperatures, humidity, and so on. The tree leaves are weak because they don't persist through time. However, the tree couldn't be strong and big if the leaves didn't catch the sunlight and the water. This feature can also be seen in the cultural world. "We are compelled in our bodies and in our minds to correspond, feature by feature, with the idea of nature that has been established for us 'men' and 'women' are political categories, and not a natural fact" (cited by Wittig) (Butler 2006: 147). Women were often associated with nature because they were able to reproduce. Metaphorically, they are linked to Mother Earth. Men are associated with the culture because they are active in the political sphere (Brooke 2019: 152f.). Women can't achieve a place in the cultural or political sphere because they lack consciousness. They are seen as a threat to the state in the masculine eye (ibid.: 155f.).

(6) The last point will be to analyse heterosexuality as a symbolic order of society. The fundamental unit of society is the couple formed by a man and a woman. The sex division is a biological effect and not a social event. Both are necessary to reproduce. There is a complementary relationship. One can't exist without the other (de Beauvoir 1976: 21). Lévi-Strauss affirms that "gender" is a tool used to secure reproduction. It promotes heterosexuality and prohibits other forms (Butler 2004: 47). The heterosexual contact is something that is in the mind of people and that affects their entire lives. The ideal belief of the society has to become reality (Butler 2006: 154). Butler analysed that the social norm of kinship is heteronormativity. This means that "heterosexuality is the only expression of human sexuality" that can be seen as natural (cited by Brooke 2019: 168). For Mackinnon, heterosexuality is a hierarchical structure where men subordinate women. For him, this is what "gender" means (Butler 2004: 53). "One is one's gender to the extent that one is not the other gender, a formulation that presupposes and enforces the restriction of gender within that binary pair" (cited by Butler 2006: 30). To have gender is to enter into a heterosexual relationship (Butler 2004: 54). For Kristeva, the starting point for kinship and culture is heterosexuality (Butler 2006: 111). Moreover, society has its basis on a tripartite organisation composed of the mother, father, and son (Lévi-Strauss 1969: 272; Lévi-Strauss 1958: 82). A child, once he understands and recognises that there are two different gender categories, will identify himself and will belong to one of them. The child will then experience more sympathy for people of his gender category than the other one due to the identification of more qualities to them (Lips 2014: 12). Through the terms of kinship, we can understand the social system (Lévi-Strauss 1958: 45). Language is the result of culture, but also its creation (ibid.: 78). For example, in a patrilineal regime the father has all the authority, but in a matrilineal regime the authoritative figure is the maternal uncle. He is seen as the masculine mother (ibid.: 50). There is a proverb that says: "marriage is the strongest of all knots" (cited by Lévi-Strauss 1969: 291). Marriage permits reuniting nature and culture, alliance, and kinship (ibid.: 489). Matrimony and economic exchange formed a system of reciprocity (ibid.: 33). For example, if a man wants to marry a woman, he will need to offer money or services to the bride's family in exchange for their daughter. There is a reciprocity relationship. The exchange of women has a social value that links men together (Butler 2006: 52).

2.3.2) Performativity

The next category to understand and define the concept of gender is performativity. Performativity can mean two different things. On the one hand, performativity is a repeated activity or performance. “Gender” is performatively produced and receives its coherence not through a single act but through the repeated practice of norms (Butler 2006: 33; Butler 1993: 12). A performance is something that an agent or subject does multiple times and in the presence of other people (Evans 2013: 59; Butler 2006: 33). An act can be intentional or not (Butler 2006: 177). Connell and Butler use the expression “to do gender.” This means that people learn how to act, and with this knowledge, they need to appropriate it to their own personhood (Connell 2013: 140). “Gender” can be understood as an activity that an agent does, and not only as what the individual biologically is (Lips 2014: 1). Moreover, Butler affirms that the performance of gender is copied and repeated so many times during a lifetime, that it becomes natural (Evans 2013: 162), and people are not aware of its repetition (Butler 1993: 12). “Gender” is a “set of repeated acts within a highly rigid regulatory frame that congeal over time to produce the appearance of substance, of a natural sort of being” (cited by Butler 2006: 43).

On the other hand, performativity can be an art that shows what one is. If we analyse how a person acts or performs in life, we can deduce which gender category he or she belongs to (Connell 2013: 154). “Gender” can’t be expressed alone. We always do it for another one. “Gender” is located outside of oneself (Butler 2004: 1). A person expresses her own definition of gender if the social norms accept the act of gendering oneself (ibid.: 7). If every person can understand and express her gender differently, criticism and power relationships can appear. In society, one will devalue and exclude the other to construct one's own identity (Butler 1993: 18). Furthermore, performativity is a tool that disciplines and orders society (Jarvis 2000: 770). A performance can be a strategy to maintain the binary relationship of gender (Butler 2006: 179). Heterosexuality is, for society, the best configuration. Allison affirms that if a person enters a gender category, he or she will automatically

desire another person who pertains to the other gender category (Jarvis 2000: 774). “Gender” is a matter of performance and is not fixed. For example, during a cross-dressing performance, a person can be identified in a different gender category than the one with which he is affiliated (Evans 2013: 165).

2.3.3) *Body*

We will now pass to the category of the body. This subject will be divided into seven parts: (1) the body as an agent and container of social norms, (2) body and communication, (3) the differentiation in the body composition, (4) the female sexed body, (5) the reciprocity of mysteries, (6) the oedipal complex, and (7) the phallogocentrism system.

- (1) We will focus on the body that can be qualified as an agent or container of the social norms. “Gender” is a concept that is time and culture-limited. Therefore, the body is not something that is fixed; it is changing tirelessly. Schilling qualified the body as a project of contemporary society (Evans 2013: 14). Our body is a co-construction of nature and society (Roberts) (Connell 2013: 82; Evans 2013: 13; Brooke 2019: 74). It is at the same time the object of the social norms and the actor in the social practice (Connell 2013: 98). The body is part of our identity, of who we are, and it is linked to the way we understand our self (Evans 2013: 16). The body is sexed before being gendered. Butler, Foucault, and Wittig agree with the fact that sex is what permits one to recognise the materiality of the body (Jarvis 2000: 767). The matter can be understood as a thing that we are made of. For example, the child comes from the mother's matter. For Aristotle, matter is the soul, so the inner body (Butler 1993: 32). We can see a distinction between the inner and outer body. The soul is the captive of the body. Indeed, we saw earlier that gender identity comes from the mind. Therefore, it is the mind that needs to shape the body to conform to its view of social norms. The body must be a mirror between the inner and outer (Foucault) (Butler 2006: 172). The soul has the power to form the body, bringing it to life (Butler 1993: 33f.).

Moreover, the body is used to differentiate the gender categories (Brooke 2019: 70). Since Antiquity, the body has been something fluid and shapeless. “Gender” and society

establish the form of the body. However, it must not be restricted to the binary pair of genders; it could be shaped in different ways (ibid.: 71). “Gender” is constructed by society and is inscribed on various kinds of bodies. The body can be understood as a “passive recipient of an inexorable cultural law” (cited by Butler 2006: 12). The meaning of the body is only possible through the external features that other people can have a look at (ibid.: 13). The body is a tool that has a public dimension. The body is mine because I can decide which social norms I want to follow, but it is also not pertaining to me because I need others to exist and to be recognised by society (Butler 2004: 21). For Foucault, the body works like a container. He is a blank surface where the culture can write its laws (Butler 2006: 165). It is a cultural text (Evans 2013: 15). Without this blank surface, a person could not do anything. We need its materiality (Butler 1993: 29). Douglas affirms that the body, only with the social marks and codes, becomes established (Butler 2006: 166). For the Christian and Cartesian individuals, the body was understood as an inert matter that signified nothing (ibid.: 164). This means that the body, in his sense, is meaningless, but it becomes intelligible once it receives the social norms such as dress, ornaments, and so on. For example, the clothes can be seen as a social mark that hides the body (Wollstonecraft 1787: 35). Clothes adorn the body. Following the fashion is recommended because it permits the avoidance of singularities. People need to conform to social norms, even in fashion (ibid.: 36). Through clothes, one can show one's wealth and status. It permits the classification of people in the social hierarchy (ibid.: 37). Make-up is a tool that is not found in a natural way in nature, but it permits hiding the face, and a person's identity (ibid.: 39). People that are hiding their real identity behind make-up or extravagant clothes are not pertaining to the social ideals of the society. Other people can think that they don't have “the purity of the mind” and that someone should have to conform to these norms (ibid.: 40). The beauty of a person is not linked to the mind or the proportions of the material body (Burke 1833: 99f.). The manner of a person is what produces the beauty (ibid.: 108). This means that how people show their intelligibility of gender categories to others makes it beautiful in the eyes of society. The more a person behaves in her gender category, the more society will be impressed. For Burke, women are more used to beauty because they learn how “to lisp, to totter in their walk, to counterfeit weakness, and even sickness” (cited by Burke 1833: 122). Women learn how to conform to the social norms that society assigns to them.

The body is a container that makes him an object and the target of power. The social norms shape the body rather than the physical activity (Bordo, Foucault). For Bordo, the culture is responsible for the body's shape (Jarvis 2000: 765). For Foucault, “power operates in the constitution of the very materiality of the subject, in the principle which simultaneously forms and regulates the subject for subjectivation” (cited by Butler 1993: 34). This means that “gender” forms the agent while the mind chooses which gender category, he wants to shape the body and be recognised by the society. There is a reciprocity in the relationship between the body and the state. We want the state to protect our bodies and identities in exchange for the inscription of social ideals and norms on our bodies and minds (Butler 2004: 20). Mind and body are linked together (Burke 1833: 148).

(2) The next point will be to see how the body is used in society to communicate. Language is a social phenomenon that developed early in the evolution of humankind (Lévi-Strauss 1958: 65). This means that language and the way to express ideas and knowledge were not something natural and innate. It is something that was acquired. The body is made of a material composed of organs that enable us to speak. We need the body to communicate and express ourselves. The soul can't talk without using it (Butler 2004: 172). Linguistic behaviour is located in the unconscious part of the mind (Lévi-Strauss 1958: 64). The mind is shaped by society, and it is also what enables us to indicate to the body to communicate. When speaking, we present our material body to others (Butler 2004: 172). This means that when we have a conversation with another person, we won't be able to see the soul. We only see the body and its gestures, whether they conform to social norms or not. To convey a message, we can use, on the one hand, a symbolic or metaphorical way. For example, a woman can mean language. Indeed, she can be exchanged through marriage alliances, which enables communication between different tribes or families (Lévi-Strauss 1958: 70). Or, on the other hand, the voice can be used. Confessing is a way of communication that comes from the soul (Butler 2004: 162).

(3) We will now focus on the differentiation in the body composition of male and female individuals. Sexuality is a founding stone (de Beauvoir 1976: 33). The sex division of men and women is a fact that is obliged to occur in society (ibid.: 34). Nature creates

everything for a purpose; nothing is done by accident (Aristotle 2011: 37). The mother finds her food in the nature that will feed the embryo through the uterus (ibid.: 36). Hippocrates wrote in *Epidemics* that a woman is a person that has menstruation. A man is the one who doesn't have it (Brooke 2019: 14). This means that the relationship between men and women was based for a long time on the comparison of the bodily parts that are present in one and absent in the other. In the ancient medical texts, the differentiation of the body composition was recognised through the differences in health (ibid.: 28). For example, the female body is wetter than the male one due to the uterus and the menstruation (ibid.: 29). A woman can be identified with the qualities of the ovary; she is inert, impatient, ferocious, and cunning (de Beauvoir 1976: 32). For Aristotle the father is the one who creates life, and the women have to be a host for the baby. Hippocrates sees this in the same way. The child needs two seeds: one weak, the female, and a strong one from the father (ibid.: 36). Aristotle affirmed that man has the power of the soul. He defines the social order and, therefore, the gender identities. The women are, for him, passive matters. They are the body that awaits the cultural law to be inscribed on them (Brooke 2019: 41). Men and women are made of the same fundamental basis (ibid.: 38), but the "female is a deformed male" (cited by Brooke 2019: 35).

Both sexes have differences in the physical, morphological, and sexual composition. These differences, however, are not sufficient to explain the masculine domination over women (Armogathe 1977: 13). Sexual reproduction is a mechanism that differentiates men and women (Connell 2013: 77). The male body is qualified as active, and the female uterus is seen as passive. However, in the process of fecundation, the roles are inverted. The egg has the active role, and the sperm has the passive role. Indeed, the egg attracts the sperm and nourishes it to evolve into an embryo (de Beauvoir 1976: 48f.). Even if the roles are changing, the complementarity between both individuals remains unchanged. For reproduction, each of them brings a seed (sperm and egg) to create a child (ibid.: 38). The egg has all the nourishment that is needed to enable the creation of life and the division of the cells, whereas the sperm is only equipped to transmit his product until the egg (ibid.: 41). We know that 50% of the DNA and the chromosomes come from the mother and the other 50% come from the father. The reunion of both genetic information will establish the sex of the child. The specific organs will also develop as hormones (Connell 2013: 78; de Beauvoir 1976: 39). The union of their

chemical reaction is a complementary relationship (de Beauvoir 1976: 41). For the two sexes, the fecundation and the evolution to an embryo is the same process (ibid.: 42). At the beginning, the cells were identical (ibid.: 38).

Moreover, we can have the impression that sexual differences can influence social differences. For example, men are stronger. That is why they should do hard-working activities. Women have a motherly instinct, so they are more used to caring activities (Connell 2013: 80 and 85). The differences between individuals lie in the unconscious. This means that men and women have different body compositions but are complementary. The differentiation is located in the mind (ibid.: 93). The mind is the sphere of action of the social norms. So, the difference is socially created and not fixed (ibid.: 97).

- (4) The next point will be the analysis of the female sexed body. Men create social norms regarding gender. They are the subject, and they have power. They are seen as the culture. Women are linked to nature and repressed through society's masculine ideals (Butler 2006: 101). It is a natural fact that a person wants to improve herself in front of others. One wants to be better than the other one. Women receive a symbolic link to nature because they can reproduce and are linked to fertility. They can, for example, receive a ritual role for agricultural production (Brooke 2019: 59). Beauvoir affirms that sex can't be changed, but gender, yes (Butler 2006: 143). A woman is identified through her body (ibid.: 16), characterising a lack and a privation (ibid.: 108). There is a dualism of mind and body (ibid.: 17). The body is associated with the women, and the mind or soul is linked to the men (Aristotle 2011: 33). We are coming to life for two purposes: for the species and the society (Rousseau 2009: 261). Women are subordinated to men for perpetuating the species (de Beauvoir 1976: 50). Women are the slaves of the species. They need to reproduce to make a continuity to the species, but also to conform to the mannish social ideals (ibid.: 51). "He is the impenetrable penetrator, and she, the invariably penetrated" (cited by Butler 1993: 50). For Rousseau, a man is a man only on certain occasions, whereas the woman is a woman for her entire life. Therefore, the women need some facilities. For example, she needs to stay home to breastfeed the child, be patient with his education, and care for the child and the whole family (Rousseau 2009: 477). Women need to conform to many norms through their bodies

(Connell 2013: 83). For Kristeva, the female body is what gives meaning and promotes the symbolism of social norms and ideals. They are the receptacle (Butler 1993: 41). For Plato, the “feminized receptacle is prohibited from resembling any forms” (cited by Butler 1993: 43). She cannot be named or shaped because she is a non-human being. Without the male notion of gender and order, she is only a blank surface (ibid.: 53). Reproduction can be seen as a handicap (Armogathe 1977: 14) or as a disability for women. Indeed, disability is a concept “that results from the interaction between persons with impairment and attitudinal and environmental barriers that hinder their full and effective participation in society on an equal basis with others” (cited by Evans 2013: 54). This means that women through their ability to reproduce are excluded from activities and social norms. The qualification of women as disabled dates back to the Antiquity. It was a strategy used by the men to avoid their participation in society (ibid.: 59).

- (5) The following point will be about the reciprocity of mysteries. Simone de Beauvoir is the only author that is talking about this in her bestseller work named *Le deuxième sexe: les faits et les mythes*. The reciprocity of mysteries is that a man can't know what it is to be a woman, and inversely. The woman is seen as the other, the other of the masculine gender. The men also have something impenetrable in their souls for the women. Moreover, women are mysterious as a being and a gender for men. The very essence of the gendered categories can't be acquired (de Beauvoir 1976: 299). For example, a drag queen will focus on the female gender, but they won't be able to understand the essence of the female gender.
- (6) The Oedipal complex was a concept analysed by Freud. This dissertation will explain what it means and why it is important for the gender concept. Psychoanalysts say that a child will identify with their father or mother during their childhood. They need to choose which gender identity they want or need to follow to be recognised in society (de Beauvoir 1976: 76; Butler 2006: 76). The oedipal complex is an emotional crisis that occurs during childhood. At this moment, the sexual desire that he had for his mother or father is suppressed. Freud affirms that the evolution of a person through a lifetime is a conscious and unconscious process (Connell 2013: 137). The ego formation, located in the individual's soul, occurs when we surpass the loss of emotional

ties to others. We will establish and determine our own gender identity (Butler 2006: 74 and 80). “Gender” will be consolidated in two different ways. On the one hand, the boy can internalise the loss of his desire for his mother and fortify ties and attachment to the father. He will enter the masculine sphere. On the other hand, if the boy renounces the internalisation of his desire, he will identify himself with the feminine sphere (ibid.: 76). The same scheme occurs to the girl. If she renounces her sexual desire toward her mother, she will renounce her masculinity and consequently fix her femininity (ibid.: 77).

- (7) The last complex that we will focus on in this investigation will be the phallogocentrism system by Irigaray. The phallogocentrism system has something to do with the phallus, which we will discuss here. The phallus is not identical with the penis. The phallus is part of the gender categories and performance, whereas the penis is a biological organ of the male body. Because the phallus is a constructed ideal of the social norms that are abstracted, the penis becomes its sign (Butler 2006: 135). Lacan and Freud define the phallus as the one who gives a signification (Butler 1993: 60). Having a phallus means being in the masculine sphere of the heterosexual order of society (ibid.: 63). The phallus is a symbol of the external masculine body. Women need to be the object and be the other of the phallus. If she were a subject, she would have invented an equivalent symbol of the phallus (de Beauvoir 1976: 73). Men, through the phallus, can give life and a future. Women are not interested in the man but are unconsciously attracted to the phallus and its symbolism that society conveys (ibid.: 260). The men have the phallus, and the women are the phallus (Butler 1993: 88). For the men, the feminine is something that is constructed outside of them. The phallus being an external construction of the male body, we can link the feminine as being the phallus (ibid.: 35). Women are excluded from the body composition of the phallus. However, what is excluded is also produced by it. The phallus became symbolic only because women don’t have it. Women are permitted to give signification to the phallus (ibid.: 37). Derrida and Irigaray see the woman's body as an object, a “surface which receives the marks of the masculine signifying act only to give back a reflection and guarantee a phallogocentric self-sufficiency, without making any contribution of its own.” Plato defined women as receptacles (cited by Butler 1993: 39). The woman, being the phallus, reflects its power

and symbolism. The women confirm the identity of the masculine individual (Butler 2006: 56).

2.3.4) *Sexuality*

The last part will be sexuality. For a long time, sex and gender were employed as similar words. This part will also be divided into different categories: (1) the stages of sexuality, (2) heterosexuality, and (3) the sexual dichotomy.

- (1) Let's start with the different stages of sexuality. Millett affirms that "biology is not destiny" (cited by Butler 2004: 61). The gender identity is malleable during the first years of infancy. A child can choose to be a man or a woman, but he will need to conform to the social norms (ibid.: 62). A child is first impacted by the species before the sex (Rousseau 2009: 275). This means that he will first understand how his body works, how to write, and how to speak before being impacted by sexuality and the other gender. During childhood, boys and girls are similar because their sexual body is not yet functioning (Lévi-Strauss 1958: 259). In any society, the child is seen as different from an adult. He is still intact from the gender ideals that society will inculcate him (Lévi-Strauss 1969: 92). The evolution of the body through time is significant for gender. However, people can't understand their meaning before the social norms explain it (Connell 2013: 138). Until 3-4 years, the children are identical. Children of both sexes have nothing that could make us distinguish them (Rousseau 2009: 261). The mother will then make a sexual difference. For example, she will hold in her arms a girl longer than a boy (Armogathe 1977: 37). The children are sometimes compared to primitive people (Lévi-Strauss 1969: 88). Around the age of 7, the children become aware of the social world. They receive education on gender identity and norms (ibid.: 91). The girls at 10-12 years enter puberty. The body begins to change, and the reproductive organs start to function. The girls can see this stage as stressful (Armogathe 1977: 40). With puberty, the sexual attraction to the other sex starts, and with them, the first rivalries between their fellows (Rousseau 2009: 266). During the teenage years, the girls wait for the man, but unconsciously, they fear them. They don't know how the masculine gender is (Armogathe 1977: 41). The sexual act can be feared, too. For example, an unwilling pregnancy can block sexual pleasure (ibid.: 43).

As we saw in the previous parts, the female body is possessed by her task as a species to reproduce herself (de Beauvoir 1976: 53). People, once they get old, are asexual. The reproductive organs are no longer functioning well, and the woman has no more role to play in the social norms (Armogathe 1977: 16). Menopause can be felt as a trauma. Women are no longer seen through their reproductive ability (ibid.: 57). The elderly women can constitute a third gender. They are free from the reproduction task. Therefore, society can't qualify them as a woman *per se*. They cannot be seen as men either because they are still identified as the female gender identity. They should be classified in another category of gender identity (de Beauvoir 1976: 57). The third gender is a gender that appears in some societies. The definition of this gender depends on the meaning these societies gave it (Connell 2013: 150).

- (2) The next category this dissertation wants to analyse is heterosexuality. Heterosexuality is something that is either constructed or determined. This means that if it is constructed, heterosexuality is free and natural. If it is determined, heterosexuality was fixed (Butler 1993: 94). Sex created two unities of individuals. For Wittig, sex is a fragmentation of the body (ibid.: 146).

“If the inner truth of gender is a fabrication and if a true gender is a fantasy instituted and inscribed on the surface of the body, then it seems that genders can be neither true nor false but are only produced as the truth effects of a discourse of primary and stable identity” (cited by Butler 1994: 174).

This means that gender determination comes from the mind, and people show their gender through their bodies. “Gender” was constructed based on biological sex. We need heterosexuality to reproduce the species. The gender identities took advantage of that and accepted that heterosexuality is conformed to transmit and reproduce social ideals. “Gender” is a concept constructed by society and the masculine sphere. It could also be a threat. Women are the target of sexist discrimination. For example, they are excluded from certain social activities. The men created a concept and a social order where they could enjoy more power than the women (Lips 2014: 29). Hesiod affirmed that women were excluded from the social and natural order (Brooke 2019: 21). Women couldn't have a space in the social order because they could bring to fall the social order

that the men constructed (ibid.: 22). Plato defined the women as inferior to the men because through their ability to reproduce they can't participate fully in the political and social world as men do (ibid.: 52). Even today the gender discrimination is persisting. The targets are the women but also people "who cross-identify or who live another gender" (cited by Butler 2004: 6). For Foucault, the prohibition of other forms of sexuality is a form of power (Butler 1993: 109). This means that heterosexuality is accepted, and homosexuality is prohibited. Through the social order, both forms are mutually exclusive. One enables the continuity of social reproduction, whereas the other does not (ibid.: 111f.).

Some people see the woman as an imperfect man (Rousseau 2009: 261). Indeed, it was believed that they were the other being of the man. The general standard was the masculine. Because both sexes have some similarities, they thought that women were made of the same material but without their qualities. Freud affirms that the woman is a mutilated man (de Beauvoir 1976: 67). For Laqueur, the human body is a one sex body, where the female body is a male body that is turned inside out (Brooke 2019: 46). "Si la femme n'est qu'une substance passive, ce que le mâle domine n'est rien. Il croit prendre, s'enrichir : c'est un leurre" (cited by de Beauvoir 1976: 259). This means that if a woman was only a passive receptacle for the masculine social norms, then the men would be powerful over someone who has nothing. The men think they can take the best of it, but the order they created is not working like this. Sexuality in the heterosexual order has a different meaning. For example, men can conquer fearless women. In contrast, women can be pregnant if they don't control or restrict themselves (Lips 2014: 52f.). For Bordo, women are often linked to the idea that because they have to control or restrict themselves, they have a sexual appetite. They become bestial (Jarvis 2000: 770). If the reproductive organs don't work normally, men are seen as women, and women as men (Aristotle 2011: 43). This means that a man who can't bear children is weak. He will be associated with the weakness of the female category. Women who can't have children can't be seen as women because they are unable to reproduce, which was the only task that the social norms ascribed to them. If they cannot do so, they are linked to the men who have other social tasks. Evolution will be stopped if a person doesn't reproduce normally, as the social ideals defined it (de Beauvoir 1976: 75).

Moreover, men and women are symmetrical and represent a complete human being. The sexual act permits the reunification of two whole parts to form a new complete being. It is a complementary and reciprocal relationship (de Beauvoir 1976: 257). For Galen, the sexual difference is necessary because both are needed for sexual reproduction (Brooke 2019: 36).

- (3) The sexuality changed its signification through time. We will now analyse this dichotomy. The work by Foucault called *Histoire de la sexualité: la volonté de savoir* is a central literature for this part. The society controls the sexual desire of people through the institution of heterosexuality as a rule. It permits to maintain order for reproduction and also stabilise gender identities (Butler 2006: 89). For Rubin, “gender is not only an identification with one sex; it also entails that sexual desire be directed toward the other sex” (cited by Butler 2006: 93). Sex can be qualified as the signifier of the body, of the identity, and of its intelligibility (Foucault 1976: 205; Butler 2006: 122). Sexuality is indistinguishable from the power relations (Butler 2006: 123). For example, to understand what heterosexuality means and to conserve it as a social norm, society needed to recognise homosexuality as a concept, which would be prohibited and culturally unintelligible (ibid.: 98).

During the Victorian period, everything was said in frankness. However, with the Bourgeoisie the theme of sex and sexuality became taboo (Foucault 1976: 9). With the Bourgeoisie, sex was seen as a sin (ibid.: 27) and was censored (ibid.: 25). For example, the children don’t have sexual desires yet, so they can’t hear or see anything about it (ibid.: 10). The prohibition can be seen as a mechanism of power to neglect the existence of something. Not saying it can mean we don’t know its existence (ibid.: 111). People needed to control their language. For example, it was possible to talk about sex with some persons in some situations. Individuals also used metaphors to bring sex in a discourse (ibid.: 26).

“Le discours véhicule et produit le pouvoir, il le renforce mais aussi le mine, l’expose, le rend fragile et permet de le barrer. De même le silence et le secret abritent le pouvoir, ancrent ses interdits ; mais ils desserrent aussi ses prises et ménagent des tolérances plus ou moins obscures” (cited by Foucault 1976: 133).

This means that power is everywhere. A discourse can produce power. For example, the more we speak about sex, the more we understand how it works, and the more norms are created. However, keeping the sex as a secret is a way to undermine the reality. People follow the rules of the powerful leading individuals in society and their vision of social ideals. During the Bourgeoisie, the repression of the discourse gave a playground to incest practices (ibid.: 64). The law recognised only two sexes that were defined by the social norms: male and female. The other sexes were not tolerated, and they were seen as criminals (ibid.: 53). Sex is a natural thing; we need another person to do it. However, the culture defines what is good and what is not acceptable through the incest prohibition (Lévi-Strauss 1969: 12). The society saw two kinds of violation of the rules: against nature or the family. This means that a person needs to respect the heterosexual normativity of the social norms and the prohibition of the incest taboo (Foucault 1976: 54). The incest prohibition is a measure used by society to avoid consanguineous marriages or unfruitful relations (Lévi-Strauss 1969: 13). It could also prohibit the relationship of some social categories (ibid.: 19). The familiarisation of members of the family can bring people to an instinctive repugnance. This means that the more people are linked and live together, the more they are used to the other. Their sexual desire was, in this way, less intense than for unknown individuals (ibid.: 17). Incest is essential for the sexual differentiation located in the psyche. It is seen as a trauma, as a fantasy, and as an abusive practice (Butler 2004: 154). The children, during their process to acquire a gender identity (oedipal complex), will have sexual desire for a man or a woman, but not for their parents. The society qualified it as an incest taboo (ibid.: 152). The incest taboo was a mechanism used by society to bring a person into heterosexual normativity. He will be recognised as intelligible by society (ibid.: 160). Society created some tools, such as warfare and the scaffold, to exterminate people who can be judged as a threat to biological reproduction (Foucault 1976: 180f.). The menstruation of a woman was seen as bad luck and danger. For example, a man who sees a woman's blood can blind the woman, and the man won't be able to catch any prey while hunting (Lévi-Strauss 1969: 22). The fear of women's blood was instituted by the social norms of society (ibid.: 23).

Around the 18th century, talking about sex became a necessity (Foucault 1976: 33). Analysing the sexuality of a country permits one to control the natality and mortality rate. In ancient times, the more a country had inhabitants, the wealthier it was (ibid.:

36). This idea changed because we saw that sexuality was linked to the future and well-being of the country in question (ibid.: 37). The control of the birth rate and the reproduction of heterosexuality permits to identify and generate solutions to correct the sexuality (ibid.: 138f.). Sex and sexuality became part of education at school (ibid.: 42). With the institution of sexuality in the discourse and education, the jurisdiction of sexual infraction was organised. Indeed, society defined a code of how to react in front of sexuality from childhood to old age. If people don't respect these norms and codes, they can be judged and brought to a medical cure (ibid.: 50). The medicine and no more the church takes control of sexuality. Indeed, the church was considered to be the one that knew how to behave and had the answers to all the questions. However, with the improvement of the scientific sphere, medicine could prove new things and give more detailed explanations. For example, they understood that incomplete sexual desires can lead to pathologies that produce incest practices (ibid.: 56). The medicine needs to control sexuality because some diseases can be affected by it. The regulation of the population is an important factor to stabilise (ibid.: 156). Medicine's central feature is understanding the human body to maximise the life and longevity of the social norms (ibid.: 162).

During the 19th century, the desire to know how things worked appeared, even for reproduction and sexuality (Foucault 1976: 74). Foucault called this thirst for knowledge *scientia sexualis*. It permitted people to confess their feelings and actions (ibid.: 78). The confession of sexuality is no longer seen as a sin but as a pathology that can, in some cases, be healed (ibid.: 90). During the 19th century, the sexuality was developed through the sexualisation of the children, the hysteria of the body of the women, the identification of incest practices, and the regulation of the population (ibid.: 150).

A flow chart has been made to summarise the concept of gender.

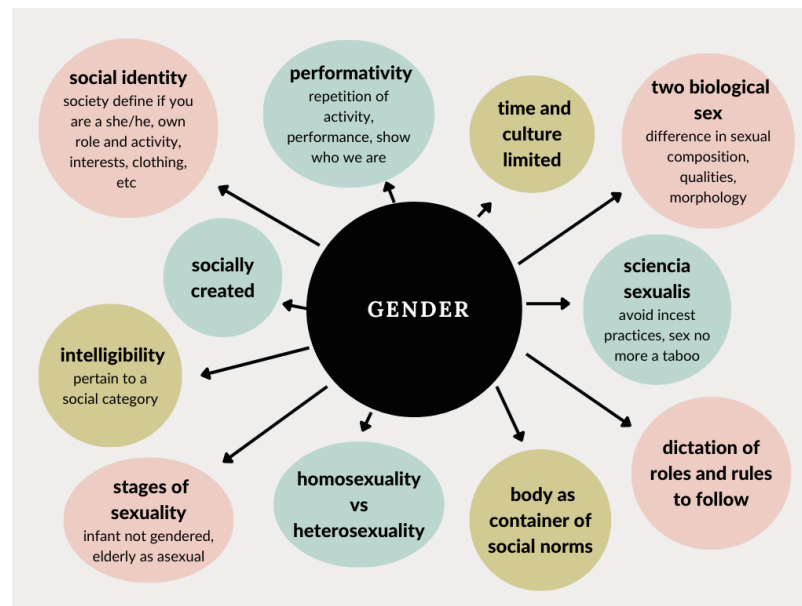


Figure 11: Flow chart of gender concept

2.4) Chapter summary

In this theoretical framework, we analysed four concepts. First, we saw the concept of power. Power is a term that is always subjective. The complex social network and the mode of differentiation and exclusion that affect someone or something are evidence of power relationships. Power is a social process that arises between people or between people and objects. The omnipresence of power makes it difficult to understand its mechanisms and dimensions. Power is time, place, and culture-specific. The strength, ideology, privileges, and oppression of minorities can differ from one culture to another. The power often lies in a few people's hands, who decide what others have to do.

Second, we analysed the concept of dependency and interdependence. The concept of dependency can be ambiguous depending on the context. In a private context, people's dependency can bind and connect them, while in a public context, dependency can be seen as shameful. Dependency implies an asymmetrical relationship of power in which people have obligations and need to exchange reciprocal objects. Dependency can be expressed by an economic, socio-legal, political, or moral/psychological situation. Interdependence is a relationship where more than one dependency relation occurs.

Third, we identified the concept of space. Space is linked to the actor's knowledge and experience in that specific space. People can understand themselves if they share the same spatiotemporal orientation. Space can be expressed in the language. The more a person is familiar with a place, the more it will be included in his discourse and perceived as nearby. Places such as the domestic space can evolve in function of the cultural order and the events that are taking place.

Fourth, we focused on the concept of gender. Gender is a social creation that defines which roles and rules people have to follow. It is culture-specific and a way of societal control of the people. Gender is a dynamic system of transformation that can be remodelled through time. Gender identity is a way to classify people into the categories of femininity or masculinity. Gender differentiation can be expressed through interest, activities, clothing, and so on. Everybody needs to have a gender to be recognised by society. The culture shapes the body. Both genders were required by the social norms to reproduce humankind and their rules. Heterosexuality is perceived as the fundamental unit. Sexuality evolved in the minds through time. Indeed, sex and sexuality were prohibited under the Bourgeoisie and the Victorian era. During the 18th century, sexuality became controlled (natality and mortality rates). During the next century, sexuality became an open subject and was taught even in school. The way to reproduce his gendered performance repetitively enables one to show what one is. The body is a blank surface on which society inscribes its laws. The body can be seen as a container that expresses one identity and transmits social norms. Men and women have different body compositions. Women were identified through their bodies. She is only recognised through her ability to reproduce. In a way, they are the slaves of the species. All her life is turned towards reproduction. Women perceived this ability as a handicap to achieve equality with men. Symbolically, women can be seen as the phallus. They represent the outside identity of the men. What is excluded is also produced by it. The gender identity is malleable during the early years of an infant. Through an emotional crisis, he or she will identify himself with one gender.

These four concepts will be used as a key understanding for the doctoral research. Indeed, power is needed to create social classes and hierarchies, which can be seen in the target people categories chosen for this investigation. The concepts of dependence, independence, and interdependence will be useful in

classifying which relationship type is linked to men and women during their activities. Moreover, to analyse the spatial organisation of the Maya sites, understanding how a space can be identified and what it could mean for the community under study is of great priority. Finally, the concept of gender is examined to look at how the categories of men and women were created and evolved within society. This shaped the separation of roles and space utilisation among them.

3) Western and Maya reception of the concepts of gender, space, and gendered activities

In the following pages, the next task will be to understand how the concepts of power, gender, and space can be applied to the Western and Maya worlds. For this, we will first examine how both world parts define the body. An additional focus will be to see how the Maya women were linked to the concept of power. Then, the space division and the gendered activities from the Western worldview will be analysed. Finally, the gendered activities within the Maya civilisation will be taken into focus. There, epigraphical titles and iconographical media will be used to see which activities can be practised and ascribed to which gender. A spatial division of activities will be inferred from the observation of the household and burial distribution within Maya sites.

3.1) The human body in the Western view

We will start with the subpart of the definition of anatomy/biology/sexuality within the Western view. Here, we will analyse how the gender concept was understood by these themes. To organise the ideas, this dissertation will divide it into four categories: (1) culture, (2) body, (3) sexuality, and (4) matrimony.

- (1) The culture in which people live was created by the state that, in turn, was made by humans. For Aristotle, the man is a political animal. The state is a natural creation for human beings because, left alone, a person can't be self-sufficient. He will need the help of others (Jowett 1985: 4). Only gods or beasts cannot live in a state system (ibid.: 5). The social norms are responsible for the gender categories and their beliefs. They organise and hierarchise the individuals of a society. For example, patrilocality shows the asymmetrical relationship of both gender in human society (de Beauvoir 1976: 98). Both genders will be more equal if women can have more access to the production areas and if she is not needed that often in domestic duties (ibid.: 80). The society defined the activity of reproduction and warfare as the same kind of labour. People are more or less forced to realise these activities for society. However, once the war is over, men can enjoy freedom again, whereas women, after bearing children, are still unfree

(ibid.: 115). Moreover, the ability to speak and the language itself are the tools used by the patriarchal society to define who is part of the masculine or feminine category of gender (Pollock 1981: 132). Words can affect a subject. Indeed, person A will speak and convey a message to person B, but he will explain it in his own manner and how the story or action affected him (Burke 1833: 199).

The I makes us subject and having agency through the social construction of the society (Butler 1993: 123). The recognition of a subject in society happens when the person accepts the social norms and identifies himself with them (Butler 2004: 131). Indeed, the culture wants a father and a mother to produce a child who can have points of reference for both gender identities. Once he chooses which gender he wants to be, society can recognise him. If the child doesn't have this heterosexuality distinction in mind, he won't be able to choose and to be recognised by society (ibid.: 118). Men and women were composed and created as the opposites of each other. This was believed in the 19th/ 20th century (Pollock 2003: 170). The term man has a meaning and can be understood only because of the term woman (ibid.: 204). The woman reflects all the qualities that the man can or cannot achieve. Through her, he can learn who he is (de Beauvoir 1976: 241). Furthermore, through the exclusion strategy, social norms can unify and bind people together (Butler 2004: 206). The saying: divide, to reign better (*"Diviser, pour mieux régner"*) illustrates how the social norms create laws that people need to follow, and the ones that are different are excluded. Human beings have their own wills. Therefore, if you take them as a subject, they could show some resistance. If a person is subjected to another, he will be obliged to follow the will of that person. He will be part of the property. There is a dependency relationship (Schell 2012: 66). For example, "when another claims something I worked on, he implicitly asserts that his will subjected to the object, hence that his will (not mine) cut down the tree, and thus that his will moved my body" (cited by Schell 2012: 66). The state of freedom of action can be possible if an individual is involved in actions thought by his own will, but also in respecting the wills of the others (ibid.: 86). To be free is to avoid any dependence relationship and to have natural desires which can easily be feasible (ibid.: 89). If a person wants to reach freedom and happiness, he should not have too many desires that won't happen. Desire should not be

based on things that a person cannot control. Otherwise, she will be frustrated. This is called the Hellenistic idea (ibid.: 87). Moreover, art visually represents social relations within a patriarchal system (Pollock 1981: 119). In the 19th century, there was an ambiguity with the identity of artists. The man or artist could go everywhere to find his inspiration, whereas the woman needed to stay in the domestic area (ibid.: 99). The way art is to be seen is determined by the sex of the artist. Women who are artists can't be the authors of genius pieces (ibid.: 106).

The myths about women and femininity permit misogynistic theories to flourish (Armogathe 1977: 15). With the beginning of Christianity, women were seen as evil, the ones who brought misfortune in life. There was also the belief that women were created from men and for them (de Beauvoir 1976: 124). Women were perceived as the destroyers of men (Pollock 2003: 174). The woman was created for the man, for his pleasure (Wollstonecraft 1989: 36). "She was created to be the toy of man, his rattle, and it must jingle in his ears whenever dismissing reason, he chooses to be amused" (cited by Wollstonecraft 1989: 43). With the notion of property, women became an exchange object (Armogathe 1977: 14). The myth of a primitive matriarchy was invented by the patriarchal culture (by Altwood) to justify their position. Before, there was a matriarchy, and now there is a patriarchy. Everyone has their turn (Brooke 2019: 145). Society decided that the link and connection of a mother to her daughter is a metaphor used for the chain of female genealogy. Women share the same destiny over generations (ibid.: 141).

- (2) The next category we will discuss is the body. The body can work as a container. At the same time, it is a natural creation and a social construct (Evans 2013: 13). The body is a surface where society can code and shape a person (Bordo 1993: 721). For Schilling, the body is a project of society (Evans 2013: 14). This means that the body is never fully developed because social norms are continuously evolving.

Men look at women as the other in nature, but also as their similar. Both have different sexual body parts, but they also have the same number of feet, arms,

hands, and so on (de Beauvoir 1976: 187). On Earth, not every animal possesses both sexes to reproduce (Aristotle 2011: 2). Men and women differ from each other. They have different abilities and sexual organs (ibid.: 3). The uterus of a woman is located inside her body and is qualified as hot. She needed to protect the egg from the outside world and fulfil its needs for maturation (ibid.: 7). Every fetus would develop in a female direction if the chromosome Y or the male sex hormones were not activated (Lips 2014: 6). The menstruation of a woman is seen as a failure because the tissues are dying without the formation of a child (Saraswati 2018: 462). The semen of both sexes is needed to create the next human generation (Aristotle 2011: 3). The production of an egg by the female body is seen as inferior because it happens only once a month and during a certain period of the woman's life. Sperm production has more value because it is produced every day, and there is a continuity in a man's life. However, Saraswati affirms that it should be the contrary. The scarcity of eggs should be more valuable than the sperm (Saraswati 2018: 463). The egg and sperm qualities can be shifted to the qualities of men and women. For example, the egg is passive and doesn't move, whereas the sperm is agile and has a long tail. The woman, during fecundation, is waiting for the man who will do the job (ibid.: 464). For Aristotle, men are the active people who engender life, and women are only a receptacle for the male semen (Aristotle 2011: 3 and 20). A man can have many women because he produces a large amount of sperm. Women, because they produce only a few eggs in their lives, need to select their partner (Lips 2014: 4). New research found that the sperm is the weak one. He will come inside the uterus, but then the egg will attract the sperm, and through his chemical enzyme, the reproduction will start. Some people associated this research with another stereotype: women's dangerous and aggressive nature (Saraswati 2018: 465). Through science and a rational explanation, these old theories and stereotypes are coming up to make them lose power and to be then integrated into the social norms of gender (ibid.: 467).

Society values the attributes and qualities of masculinity more than femininity (Brooke 2019: 137). The natural strength and the number of muscles are characteristic of masculinity, but they are also the main differences in the body composition of men and women (Bordo 1993: 722). In society, women are

allowed to have muscles and to do men's work, but the contrary is not tolerated (ibid.: 723f.). Men are more easily involved in leading activities because they have a natural strength. Women, on the contrary, are seen as inferior because of the delicacy and fragility of their bodies (Lips 2014: 14). Women have a higher and softer voice, whereas men have a lower and stronger voice (Aristotle 2011: 92). The timber of the voice can also lead to powerful positions into society. For example, a soft voice can't be heard from far away. People with this kind of voice won't be seen in a leading position where they should be able to shout orders. Sex differentiation and gender performance can also be seen in the brain. The straight gyrus part, responsible for interpreting non-verbal cues, is more prominent for girls than boys (Lips 2014: 8f.).

We can see that men and women differ physically, morphologically, and sexually, but these differences can't explain the superiority of men over women (Armogathe 1977: 13). For Christine de Pisan, the body of a woman isn't inferior or weak (de Pisan 1986: 14). The maturity or inferiority of a person does not reside in her body, but in the perfection of their manners and virtues (ibid.: 55). For others, the nakedness of the feminine characters painted symbolise their state of inferiority and powerlessness (Pollock 1981: 104). Women artists are the spectators and inspiration of beauty (ibid.: 92). Beauty is a trait of the body (Burke 1833: 97). For Burke, a woman is beautiful if, when he looks at her, he doesn't know where to look (ibid.: 129). The manner and not the proportions give a beautiful aspect to the body (ibid.: 108). Delicacy, fragility, and weakness make something appear more beautiful. Women, having these qualities, tend to be more beautiful than men. However, every person has something beautiful (ibid.: 130). The body is what causes desire and unites one person to another. The moral is where the desire comes from and only fixes itself on one object. This was created by society, and women use it as their power to subordinate men to their bodies (Rousseau 1985: 39). For Burke, love is an energy located in the mind. It gives us the desire to possess the thing that we feel love for (Burke 1833: 98).

Furthermore, Aristotle affirms that a woman is only a woman because she lacks some attributes. We can understand the man without keeping the female body

in mind. However, this is not the case for the women. We need to keep in mind the male body in order to imagine and understand women (de Beauvoir 1976: 18). For Irigaray, there isn't a single category of women in the world. There is a plurality of women. Men are often seen as a singularity (Bordo 1993: 696). However, the symbolism of masculinity, the phallus, is unique. The penis is the most mutable thing in the male body (ibid.: 697). A man can show people his power through phallic symbolism, but he will not show his penis (ibid.: 700). For society, if a person has a penis, it will be associated with masculinity, even if his dress represents femininity (ibid.: 713). The breasts are the gender attributes that define a person as a woman (Butler 2004: 87). The private part of the male body is always protected, whereas the female body is understood as a "cultural property." Everybody can see it because it is unprotected (Bordo 1993: 698). Reproduction is a historical handicap for the emancipation of women. Her body is perceived as a burden (Armogathe 1977: 14).

- (3) In the following category, we will deal with sexuality. Sexuality is an evolution of the body during a lifetime. The three main stages of sexuality are the fetal development, puberty, and menopause. The female fetus takes more time to mature than the male one, but this is reversed once the person is born. Girls arrive earlier at puberty than boys (Aristotle 2011: 78). The body's maturity is connected to the mind. The maturity of women is earlier in time and faster. They can't acquire enough knowledge. However, men have a slow maturity that permits them to accumulate more knowledge (Wollstonecraft 1989: 77). Women must be inferior beings because they reach maturation faster than men. "Inferior things are coming sooner to perfection" (cited by Aristotle 2011: 78). The last stage, the menopause, can be a traumatic event in the life of women. Indeed, women can feel useless due to social norms and see their bodies fading (Armogathe 1977: 57). They are no longer needed for social reproduction. The mother doesn't want her daughter to leave the parental house. There can appear to be a generational conflict (ibid.: 58).

Without the heterosexual union of a male and a female, the reproduction of the species would not be possible. Having a child is a natural desire shared with animals and even plants (Jowett 1885: 2). A family has a tripartite organisation

composed of the father, the mother, and the son (Lévi-Strauss 1969: 272). It is a natural creation. The association of people enables us to satisfy everyone's daily needs (Jowett 1885: 3). A child has a strong relationship with both parents. This is called bilinealism (Lévi-Strauss 1969: 104). Love is a concept that was imagined and determined by men. Therefore, women's sexuality needs to be under their control (Pollock 2003: 197). Women are able to charm men because of their beauty and attractiveness. It is a natural strategy to secure the reproduction of the species (Schell 2012:154). The sensuality of women was located on the head, neck, and shoulders (Pollock 2003: 178). Metaphorically, this sensuality can be expressed through flowers (ibid.: 186). Moreover, women are different from female animals. Men don't need to fight others to have a woman because there is a larger number of women available in society than in the animal world. Women are disposed of every month for reproduction. In contrast, female animals have a precise period of the year for reproduction (Rousseau 1985: 40). During the *Bourgeoisie*, women were perceived as angelic beings with animal envies (Poster) (Pollock 1992: 50). In patriarchy, the phallus can symbolise power, but also his absence in the female body (Pollock 2003: 204). It is believed that men have more sexual will than women, which is why they must be constantly in a state of frustration (Bordo 1993: 704). A man who follows the heterosexual norms of society will not enjoy being looked at by homosexual men. Sometimes, men will be conscious that how they look at women is not respectful (ibid.: 715). A man fears the look of a homosexual man because it is as if he will be the receptacle, as he would take the role of the woman in that relationship (ibid.: 718).

For Agancinski, homosexuality goes against the symbolic order of the social norms (Butler 2004: 112). Homosexuality means that a person has heterosexual sex parts, but his understanding of gender is reversed (ibid.: 79). It can't be determined as an identity of the body because the social intelligibility of gender only accepts heterosexual masculinity and femininity as an identity (Butler 1993: 140). For lesbians, the sexual act is not perceived as a battle that someone has to win or lose but as real reciprocity (Armogathe 1977: 45). A lesbian is seen as an individual who has failed to understand the heterosexual norms of society. These norms can be understood to be the cause of the appearance of

lesbianism (Butler 1993: 127). Drag is an ambiguous individual. He denaturalises and idealises heterosexual norms. Indeed, he is not performing the strict gender ideals of society, but he imitates what his gender means to him (ibid.: 125). Drag is a person who primarily loved in a heterosexual way, but he was rejected and disappointed by the other person. This provoked him to incorporate the other gender (ibid.: 127). In a gay marriage, the fear of society is about the reproductive relationship. The child is the important being that transfers the culture further (Butler 2004: 110).

If a society is polygamous, the status of women in that case must be inferior; she was made for the pleasure of men (Wollstonecraft 1989: 78). Women are the property of men. With the acquisition of a new property, men want something new that hasn't been used before. They don't want to receive something used by others or broken. This can be transposed to the sexuality of women. Women need to be virgins by marriage. The husband is the possessor of a new person, so he has all the rights (de Beauvoir 1976: 198 and 207). A good, dedicated woman needs to have her entire natural force and so her virginity (ibid.: 215). They need to follow the rules of chastity (Wollstonecraft 1989: 144). Therefore, men have a greater appetite than women. They accuse the other gender because they have more power and want society to close an eye on their practice (ibid.: 145). Uncivilised men are tempted to adultery and debauchery because of the wrong manner of public women (Rousseau 2009: 437). Men are often more violent and tend to use it more than women (Lips 2014: 119). Rape and sexual violence are done to women because men want to prove their power and their strength (ibid.: 132).

- (4) The last category we want to discuss here is matrimony. Marriage forms a triangle. It involves the man and the woman, but also the recognition of the marriage by the community. If the community does not recognise the act, the marriage is not sealed (Lévi-Strauss 1969: 43). Exogamy is a marriage system where you marry someone who does not belong to the community. Here, an important question arises: who does not belong to the community? (ibid.: 46). Monogamy is a system of reciprocity because there is one man for one woman. It is not the case if a system is polygamous. There is an inequitable distribution

of women (ibid.: 44). Endogamy is a marriage system that links cross-cousins together (ibid.: 45). The collateral descendants can be of two kinds. On the one hand, if cousins descend from “two collaterals of the same sex, and who call each other brothers and sisters,” they can’t be linked in a marriage relationship. On the other hand, if cousins descend from “two collaterals of different sex, who are called by special terms,” they can be linked together through marriage. It will result in a cross-cousin relationship (cited by Lévi-Strauss 1969: 98f.). A cross-cousin marriage has the same value as a dual organisation in a community (ibid.: 103). A woman married in a patrilocal system in a community will be lost from the original community. The woman needs to settle into the man’s community. However, in a matrilocal system, it is the reverse. The community will gain the woman (ibid.: 130). A system of matrilineal descendants will always see the father as a stranger or an outsider, and they won’t recognise the father’s relationship with the son (ibid.: 103). The heredity of powerful people was often unique and unequalitarian. Only the first male child will receive all the powers from the previous powerful parents. It was the primogeniture law (Lamaison et al. 1987: 35). A house can designate a person who possesses land and traditions whose descendants will bear a new unity of recombination. For example, the titles, the fortune, and the name will be inherited from the previous generation (ibid.: 34). A house permits the identification of different social organisations that can exist in a society. For example, heredity can be given to one individual of the generation; it can be distributed equally to brothers, or the previous generation leaves no heredity (ibid.: 36). The vertical line of succession of a house can perpetuate the goods and the house to the next generation. The horizontal line of succession of a house is only used in case of protection and defence against the loss of the house (ibid.: 37). A house can be given to the woman through marriage. This could happen if the descendant could not control the house or if the descendant died at a young age. In this way, women are used as a connection between the husband and his father and male children (ibid.: 38).

A kinship is a structural organisation of society (Lévi-Strauss 1969: 124). Frazer sees a similarity “between marriage by exchange and cross-cousin marriage” (cited by Lévi-Strauss 1969: 134). Men who exchange their sisters could find a

bride more easily (ibid.: 138). In exchange, the act of giving is a right that people have, whereas the one who receives something is obligated to accept it (ibid.: 59). Exchange does not only imply an economic duty. An exchange can have more moral values, such as power, status, emotion, and so on. The act of exchanging things can be conscious or unconscious to protect one's interests and body from the outside and other people (ibid.: 54). Exchange can be useful to integrate into a community, or it can provoke a differentiation, such as competition (ibid.: 289). During a marriage, a family will receive the wife and gain prestige, whereas the other family will give away the wife and receive a present in exchange (ibid.: 238). The dowry is a burden for the groom. In a monarchy, men must sustain the rank and the wealth of the bride's family. In a republic, the dowry is not predefined by law, and everyone can do what they want. In a despotic country, the dowry is non-existent because women are seen as slaves (Montesquieu 1973: 220). For Mauss, an exchange is a social act of reciprocity. Exchanges can be done for special occasions such as birth, marriage, death, and so on (Lévi-Strauss 1969: 52). The exchange of a woman can seal and express a friendship (ibid.: 114).

Women and land were exchanged as the same value product in exchanges (ibid.: 61). During the feudal period, women and land were equal. The more men married women, the more land and resources they had (de Beauvoir 1976: 127). Men are powerful, such as the master of the earth. Women are inferior and exploited, such as the earth (ibid.: 99). Women who, through marriage, need to settle in the men's communities are part of their property (Lévi-Strauss 1969: 245).

“Marriage is thus a dramatic encounter between nature and culture, between alliance and kinship” (cited by Lévi-Strauss 1969: 489). Marriage alliances are the fundamental basis for social structures. A saying says that marriage is the strongest of all knots (ibid.: 291). A dual organisation can appear within a community. This means that two groups in a society are involved in a complex relationship that varies from rivalry to cooperation. These two parts are, however, linked together through the exchange of women and objects of economic, social, and ceremonial nature (ibid.: 69). The culture decides who

can marry whom. It must not come to incest relations (ibid.: 486). The father is the one who chooses the groom for his daughter. In the best case, he must be rich and distinguished (Pollock 1992: 45). Powerful people tend to be polygamous. This is used as a strategy to exchange their wives with other communities to gain more power and wealth (Lévi-Strauss 1969: 275). Through his wife, the husband manifests his power to the social norms (de Beauvoir 1976: 219).

Marriage is not based on reciprocity between men and women. It is more a way to use women as a connection between men. The reciprocity is among the men (de Beauvoir 1976: 97; Lévi-Strauss 1969: 116). In society, women who enjoy more privileges and are almost seen as equal to men are single or widowed. Marriage can be seen as a loss of freedom for women (de Beauvoir 1976: 130).

3.2) Maya women in the creation of the world

We will now deal with the Maya women and their implication in the world's creation. To analyse the paper of women in society, we will divide this theme into five categories: (1) the replication of the culture, (2) the concept of a shared identity and membership in a community, (3) the cultural unity, (4) the roles and norms of a community, and (5) the birth and childhood by the Maya.

- (1) We will start by analysing how the culture could have been replicated. The Maya believed that “la vida y la muerte, la creación y la destrucción, coexistían y se complementaban” (cited by Perez 2013: 44). Women are the ones involved in the role of the “creation, modification, and replication of culture” (cited by Ardren 2002: 2). First, there are the three stones of creation. In her book, Ardren affirms that the three stones of creation have a special meaning. Indeed, two stones were placed simultaneously, and the third one was placed later on and was shaped differently (ibid.: 186). The three stones evoke a family. The first two stones represent the complementarity of the father and the mother. The third stone is added later and is slightly different from the previous one. This

represents the son (ibid.: 191). For example, in Palenque on the Palace tablet (Figure 12), we can see a scene of accession by the ruler K'inich Pakal. He is located in the centre of the scene, and his parents are at his sides, sitting atop a jaguar and a snake-headed throne. The three thrones represent the three stones of creation (ibid.: 189). The third throne has a watery symbolism that can be associated with the incarnation of a third



Figure 12 : Palenque Palace Tablet ([Palenque: Palace Tablet \(mesoweb.com\)](http://Palenque: Palace Tablet (mesoweb.com)))

gender of the Maize God and the Moon Goddess (ibid.: 195). Another scholar sees that the three stones of creation could also be linked to the triadic structures in the different cities (ibid.: 191). In Tikal, for example, the triadic complex can be identified with the three genders of the Mayan culture. Indeed, the two pyramids facing each other are symmetrical, and their architectural features and decorations permit the recognition of female and male characteristics. The third pyramid is different and from a later stage of construction (ibid.: 197). The cosmic monster and the crocodilian decoration of the pyramid permit us to identify them as the two-spirit Maize God and Moon Goddess and as the third stone of the creation (ibid.: 198). In this dissertation, we won't focus on the concept of the third gender.

Second, cloth production can be seen as an act of creation. Women were producing clothing, and with it, they could replicate the ideology of the culture (Ardren et al. 2010: 275). The confection of clothes and their motives are like books where the culture is written. Cloth can be read as books. Each motive or symbol has a different meaning and message to convey (Otzoy 1992: 108; Montoya 2011: 15). Cloth transmits "information regarding prestige, wealth, and social affiliation" (cited by Halperin 2008: 111). The structure of society and the hierarchy of people can be seen through symbols on the clothes worn by the individuals. In the *Popol Vuh*, we can find a passage where the symbols on the clothes of the three K'iche' lords had a creation meaning. These three lords had different symbols, and they were responsible for the creation of the three major lineages by the K'iche' (Otzoy 1992: 108). The *Popol Vuh* is a text coming from the Highlands. Even if this investigation focuses on the Lowlands,

this book is of crucial importance due to the beliefs written in it and to the scarcity of remaining books by the Mayas.

Third, the erection and wrapping of the stela were methods used to replicate the creation myth and beliefs. The wrapping of the stela permits hiding and presenting scenes such as rituals and recorded history on the stela. This enables them to create and play infinitely in the creation of the Maya world and their beliefs (Christie 2005: 283). For example, the plate K1892 (Figure 13) presents the birth of the Maize God from the carapace of a turtle. Moreover, the monuments were enveloped in cloth for the dedication. The clothes were made exclusively by women. Metaphorically, we can say that the Mayan culture was created by women (Ardren 2002: 184). Sowing and sunrise are further metaphors for the creation (Chinchilla Mazariegos 2011: 146), but we won't have a look at these.

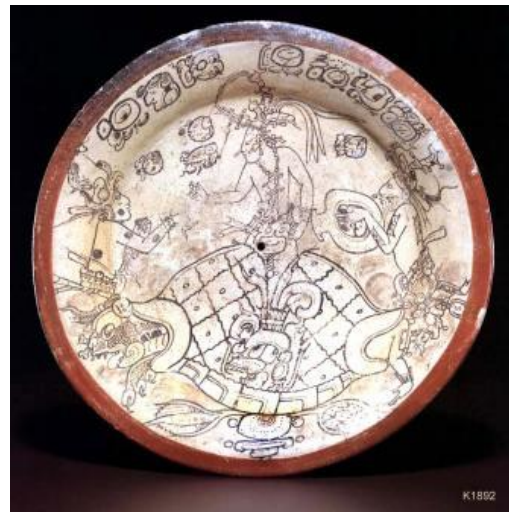


Figure 13: plate K1892 representing the birth of the Maize God (mayavase.com).

- (2) We will continue analysing the concept of shared identity and membership in a community. The identity of a person, object, or group can be represented or deduced in different ways. First, the identity could be identified through the head. For the Mayas, the soul, called *k'ulel*, brings a person to life. It is the essence of the person (Scherer 2015: 12). The soul is located in the heart and flows in the body through the blood (ibid.: 14). The soul is perceived as something sacred, whereas the body is something that belongs to the cultural realm (ibid.: 19). The head is the location of the identity. Through the head, we can identify the person. In the Mayan glyphs, many logographs have a head variant (ibid.: 20). In rituals, masks can be used in a performance. These masks represented the gods and their essence/ identity (ibid.: 23).

Moreover, head shaping is permitted to express a person's identity, ethnicity, and status (Tiesler 2011: 117). 80% of recovered skulls are modified (ibid.: 118). The 20% of unshaped skulls were predominantly pertaining to female

babies as a way to discriminate against them (ibid.: 129). The shaping of an infant's head enables them to enter into the social realm; it will be integrated and recognised into the community (Tiesler 2011:123; Palomo et al. 2017: 321). Social integration permits to give an identity to a person but also fixes the soul into the body. The person will become a Maya (Tiesler 2011: 124). The head is where the essence of the person is located, and it needs to be protected to avoid a loss of spiritual energy or heat (ibid.: 120). The head and the act of wrapping protected the person's identity from danger coming from evil forces or winds. For example, there was the wrapping of the infant's head to shape it, the headband of the rulership to protect the representation of the divine-human ruler, the wrapping of the stela, and so on (Scherer 2015: 28). The Maya believed that the gods had deformed skulls. For example, the Maize God had a tabular erect shape, and the Moon Goddess had a tabular oblique shape. Men and women favoured one shape to resemble their deities (Perez Lopez 2013: 98).

The skull deformation was intentionally practiced by women, mothers, or grandmothers to the new-born (Tiesler et al. 2012: 10; Landa 1959: 62). Their bones and tissues are still malleable so the deformation can be done easily (Nalda et al. 1997: 16). A variety of head shaping forms existed (Figure 14), but two were majoritarian: tabular erected (compression of the skull in a cradle) and tabular oblique (compression through planks on the forehead and the occiput) (Tiesler et al. 2012: 103; Wyllys Andrews 1975: 222f.; Palomo et al.

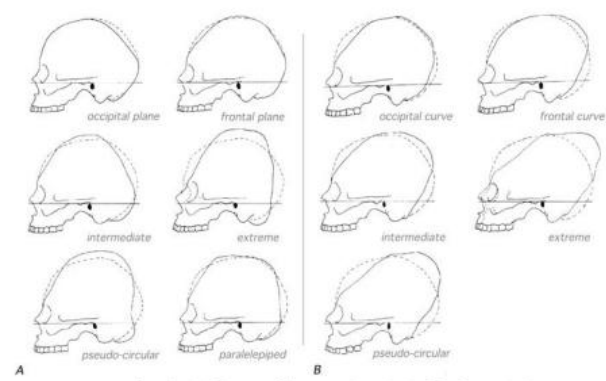


Figure 14: variations of skull modification shapes (Tiesler et al. 2012: 104).

2017: 309). They could retrace an ethnic or family tradition (Tiesler 2011: 127). We deduced and saw that the different shapes were linked to the language distribution or cultural areas (Tiesler 2011: 124; Tiesler et al. 2012: 116; Nalda et al. 1997: 18; Perez Lopez 2013: 98). Scholars can, therefore, retrace the different migration or immigration backgrounds of the person (Tiesler 2011: 127; Palomo et al. 2017: 321). The head deformation was not gendered or class-

specific (Tiesler et al. 2012: 117). The cranial modification was realised to the newborn considered genderless (Tiesler 2011: 119). Not only the elites shaped their heads. We have proof that different social classes practiced it. Men and women also deformed their heads without any specificity. Nowadays, we find slightly more women than men, but the difference is minimal (Scherer 2015: 27; Tiesler 2011: 125; Ardren 2002: 74). The head deformation was not gendered, but instead the ceremonies. For example, the boys received tools for their later activities, such as hunting, and the girls received tools for their future domestic duties (Tiesler 2011: 127).

The head is the place that signals the identity of a person. In iconography, the identity of prominent people could be emphasised through headdresses (Halperin 2008: 114). The headdress can convey the identity of the wearer (Carter et al. 2020: 57), and it can be qualified as the association between the head and the identity of the individual (ibid.: 59). *Baah* is a Classic Maya logogram and means the head, the person or the self (ibid.: 65). The identity of someone depends on the time, place, and their life experience (Jackson 2018: 1). For example, the nose ornaments were made of perishable material and could indicate the status and the group affiliation of the person (Carter et al. 2020: 96). The necklaces had patterns that could show the temporal and regional differences (ibid.: 104). The gendered identity of people was expressed through dental modification, “body paintings, hairstyling, hair ornaments, and headbands” (cited by Carter et al. 2020: 63).

Second, identity can be expressed through objects. A person's identity is not restricted to the person's self/ body. Through ritual impersonation, a person's identity could be located in different places (Jackson 2018: 2). The Mayans believed in animism. The objects have a soul and are considered to be animate beings. Hendon says that the soul of the objects can enter in relation with human souls. Objects can play a special role in the life of people (ibid.: 2). The material remains can be seen as a conscious or unconscious aspect of a state or cultural group (Halperin 2014: 13). Objects can act as persons, and they can be recognised as such (Jackson 2018: 3). For example, if a ceramic has a face painted on its surface, the ceramic will have an identity because the head is the

metaphor for personhood. The materiality of an object depends on the social interaction of people with the object (Halperin 2014: 32). For example, the context of production, use, and symbolism will be different if the good's destiny was for the prestige or the daily use (ibid.: 34). The relation between an object and a person will combine "elements of person-ness and object-ness" (cited by Jackson 2018: 9).

Third, identity could be revealed through the clothing. Membership in a community or a social category can be expressed through clothing, headdresses, ornaments, and poses (Gallegos 2012: 79). Clothing was a way to give a personhood. Dressing an animal gave him human qualities (Carter et al. 2020: 3). Nudity was a way to express shame and vulnerability. People who were not dressed were not seen as human beings but were more linked to insects or animals (ibid.: 5). The clothes expressed the identity and the status of the person wearing it (ibid.: 7). The use of a belt could mean metaphorically to bind the body to the soul (ibid.: 133).

The Mayas had different dress motives that distinguished them from others because it expressed their identity and membership in a community (Otzoy 1992: 111). Having an identity is to recognise who the person is, and the person needs to identify the differences and similarities between themselves and others (Carter et al. 2020: 153). The different classes and community membership can be seen in the composition and style of the textiles (Moreno n.d.: 2). A style can be understood as a visual expression that lies in the shape and quality of an object, and it depends on the context (time and geographic area) (Bonnafox 2008: 114). Most studies about dress focus on gender but not on the fact that it transmits identity (Tremain 2017: 92).

The clothes can be seen as an identity marker (Tremain 2017: 72). Indeed, it can be read as a book (ibid.: 74). The clothing and ornaments form a visual communication. Holsbeke affirms that "clothing is more than a means of conveying the body, it is above all a means of communication" (cited by Moreno n.d.: 1). Foucault affirms that the clothing was something controlled by the structures of power (Carter et al. 2020: 1; Tremain 2017: 78). If the men

established the interethnic relations, it is the women that maintained the cultural symbols (Otzoy 1992: 112). Women were producing clothes, and through the symbols on them, they participated in the creation and reproduction of the ideology of the state (Ardren et al. 2010: 275). Society defines what people should wear. For example, men and women wear different clothes, and young and aged people too. Class affiliation can determine the amount of cloth and the material used (Carter et al. 2020: 1). The more a woman took time to use a special material to make a dress, the higher her status would be (Tremain 2017: 93).

Dress in iconography is a tool used to identify people (Tremain 2017: 156). The iconography of the dress was homogenous for the Maya realm. However, regionally and chronologically, features remain for some cities to give them a special signature and identity to distinguish themselves (Carter et al. 2020: 182). In the Late Classic period, there appeared a shift in the identification of iconography. Before, the figures were represented in a passive pose with imposing clothing and ornaments. Later on, the figures were represented in a motion style, and the clothing was no longer the central focus of the message and identification but the action (Proskouriakoff 1950: 23).

- (3) We will now focus on understanding cultural unity and how it can be expressed. First, cultural unity can be seen in art and architecture. It is through the iconography and epigraphy that we can understand how the Maya people qualified themselves, perceived the world, and organised themselves (Martin 2020: 3). Language is a mechanism that binds people together and that creates and produces a social meaning (ibid.: 49). The cultural unity can be seen through a homogeneity in art (Spinden 1975: 17). For example, the association of the water-plant motive with a fish was an unusual representation for many cultures, but it was a universal feature for the Maya (ibid.: 18). The Maya area shared uniformity in artistic and architectural aesthetic. People were not static in the Mayan world. Indeed, through the market, migration, trade networks, ideas, and knowledge were passed through the different cities. Few variations appeared, but no heterogeneity (Martin 2020: 304). Maya art expressed the beliefs (Spinden 1975: 15).

Maya architecture was described by Morley and Brainerd as “singularly homogenous, considering the long span of time which it covered and the large area where it flourished” (cited by Potter 1977: 1). All the Mayan cultures shared architectural ideals. However, different regions created different styles to give them a special identity and differentiate themselves from others (ibid.: 2). The Mayan cities were built in the same scheme. But each community had its own identity. This was possible through the variation of the local patron deity. Indeed, every city had a special deity whose temple was the biggest one. This could represent a part of the community identity (Lucero 2007: 409). The geometric features convey messages that can be understood by a large number of people who are involved in the same kind of culture (Spinden 1975: 48). For example, the different shape of the traffic signs means different things (obligation, advice, prohibition, and so on), but if a person didn’t learn or was not familiar with them, they won’t be able to understand their meaning. In the 9th century, the architecture of some cities, such as Chichen Itza, became more internationalised. This means that foreigners probably migrated there, bringing their styles and beliefs with them. The architecture had not only Mayan features but also those from other parts of Mesoamerica; in Chichen Itza, it was the Toltec style (Nichols 2012: 390). Toltecs from the Gulf Coast arrived at Chichen Itza around the Late Classic period and subdued the local people. That is why the hybridity in architecture and visual media occurred (Boot 2005: 456). The same happened centuries before with the incorporation of Teotihuacan symbols. Teotihuacan was one of the most powerful cities until the 6th and 7th centuries. Teotihuacanos migrated and conquered different Maya cities and brought with them the symbols. The Mayas also wanted to imitate the Teotihuacan symbols to show their power and alliance with this prominent city to repel rivalries with enemies (ibid.: 457). The architecture transmitted symbols and representations of power from the ruler and the community (ibid.: 457).

The built environment permits us to show and communicate to the community and foreigners the identity of those living here. The fact that the construction material was re-used could signify the reemployment and refreshing process of

the social memory (Ardren 2015: 66). Social memory can be defined as a collective creation of the past that permits to understand the construction of the community and in the same way construct its identity (ibid.: 51). The memory and history are something cyclical; it comes back again and again. The re-use of some stones or built material could emphasize the cyclicity of life in a community through time (ibid.: 67). Objects, such as stela, can be used to visually represent the social memory of historical events of the community (ibid.: 16). The difference is a basis aspect for identity. Gender, class, age, and ethnicity are important factors in understanding social identities (ibid.: 138).

Second, the unity or identification of unity clusters could be seen through the migration. With the sedentary lifestyle, people migrated together and settled in a region. The population grew, and people migrated. The expansion of cities and the confluence of people from different areas permit the creation of a shared identity. The migrants brought with them their traditions (Carballo 2011: 168). Certain ceramic styles or artifacts can testify to the archaeologist that this ethnic group was present here. The style of an object can represent the identity of a person or group of people living in a defined place (Ardren 2015: 7). In the Aztec cities, migrants from different regions could settle down in a single city. There, they could live in what we call a *barrio*. A *barrio* is a clustering of people from the same ethnic group who share similar beliefs and ideas (Manzanilla 2009: 9). However, nothing comparable in the Mayan area has been found until now. The household is a sphere where people live together and share the same culture. The house is a unity that protects the people and gives them an identity (Arnauld et al. 2013: 472). Cities were composed of a multicultural variation of characteristics that shaped the Maya identity of the people and community living there (Manzanilla 2009: 90). For example, the city of Chac showed an interaction of non-Maya features. The burial practices, architecture, and sculpture showed patterns of different ethnic groups. The ethnic group in question here was an affiliation with Teotihuacan (ibid.: 133). The migrants or ethnic groups that migrated to another city lived together in a cluster. Because they were a small group of people, sometimes the city didn't show any assimilation in these groups' architecture or ceramic style. It is also difficult for archaeologists to detect them because they were too small to make a difference

in the remains we encounter (ibid.: 135). The foreign people could acculturate themselves rapidly, which could be a possible explanation for the diversities seen in the different cities (ibid.: 136). Moreover, isotopic studies enable us to find out if people migrated. For example, in Copan, in the elite households 9L-22 and 9L-23, the majority of the buried individuals came from Copan, the Guatemalan Highlands, or the Petén until the Yucatan area (Suzuki et al. 2020: 9).

Third, we will focus on the cultural connection. A cultural connection can appear when the shape and the construction material used are similar in different geographic areas (Spinden 1975: 133). Borderlands of cities, regions, or geographical areas are distinguishable through their cultural hybridity (Nichols 2012: 8). The contact zones between two cultural regions can be seen through the adoption of some features or the hybridity of their materiality (Chase et al. 2017: 200). For the Maya, this contact can only be seen in the artifacts or the architecture.

Fourth, identity and membership lie in interaction. Identity is a tool that permits us to reproduce culture with shared behaviour and values. Communities create culture, and people live together based on “gender, age, ethnicity, residence, race, shared history” (cited by Ardren 2015: 2). Culture is not something that exists naturally. It was created and maintained by people pertaining to a community (ibid.: 14). A community can be defined as a regular interaction of people who live together. They reproduce social norms and culture (Nichols 2012: 697). The communities are the fundamental unit that creates identity (ibid.: 698). For Watanabe, community is defined through the intersectionality of “people, place, and premise” (cited by Nichols 2012: 699). Isbell distinguishes between two kinds of community. On the one hand, there is a natural community based on regular interaction between people living together. On the other hand, there is the imaginary community based on a shared history and on the imaginary sameness of ideas (ibid.: 700). The shared origin and belief system can be acquired through spatial proximity and the same sphere of daily activities that lead to increased interaction with these individuals. A feeling of sameness and similar understandings of the world and how to behave

in a society will appear (Canuto et al. 2000: 126f.). After Taylor, the social imaginary can be defined as “the way in which people imagine their social existence, how they fit together with others, how things go on between them and their fellows, the expectation that is normally met, and the deeper normative notion and images that underlie these expectations” (cited by Ardren 2015: 3). This means that people are in connection with others through shared principles and symbols that are not present in the real world, but that are present in expectations and beliefs. For Anderson, the term nation has an imaginary meaning. It exists only in the minds of people who believe in the same cultural and social traditions (ibid.: 9). The social imaginary is not something that is acquired and unchangeable. Indeed, dominant people can influence their ideas of how membership should be. People can share the same ideals, but the way to reach and implement them differs from one person to another. The membership to a community can change over time (ibid.: 13). People who share the same social imagination will be able to choose and encounter solutions to problems because they come from a similar background and share the same ideas and ideals of life (ibid.: 11).

To enable people to feel connected with others, to feel like a member of a community, they need to practice the same rituals, share the same conventions and codes in iconography, and share the same myths (Ardren 2015: 10). The belief that everybody was made of maize; that the humans have to feed the gods and to respect them permits to solidify the link between people. People will socialise and trust others more easily if they share a similar background or belief than individuals with foreign traditions and myths (Chinchilla Mazariegos 2017: 69f.). Human interaction is the foundation of social identities. Through the relations and the ideas people have, it forms exclusion or inclusion of people in the social hierarchy (Ardren 2015: 1). A shared enemy can bring people with different identities together. For example, Yaxuna and Coba were allies. Chichen Itza was a prominent city whose target was Yaxuna. People from Yaxuna decided to create alliances with other cities that had Chichen Itza as their enemies. Together, they entered into war, constructed monuments, and shared the same events. They were linked together through historical events and memory (ibid.: 72). The shared identity between cities or groups could also be

seen through the dead treatment (ibid.: 83). For example, the communities of Yaxuna, Xuenkal, and Dzibilchaltun shared the same ideas about the meaning of childhood (ibid.: 83). They believed that the children were able to communicate with the Otherworld (ibid.: 84). The grave goods associated with children were evoked by the watery Underworld. The children were the portal that let the spirits of the ancestors from the Otherworld pass through the human world (ibid.: 93). Secondary ritual treatment of the long bones permitted to maintain contact with the ancestors (ibid.: 95). Through the mortuary treatment of children, we can deduce that at least in these cities, childhood was perceived as a specific social identity (ibid.: 109).

The social imaginary can serve as a mechanism to understand the different practices of a society (Ardren 2015: 154). People, with their practice, reproduce culture and their personal and community identities (ibid.: 155). The difference is a basic aspect of identity. Gender, class, age, and ethnicity are important factors in understanding social identities (ibid.: 138). Durkheim defined the moral community as a group of people who might not fully share the ideology, “but it does posit that the greater part of society subscribed to common aims and values, in which the justification for inequality were naturalized and inscribed in a cultural logic” (cited by Martin 2020: 322). For example, the concept of Mesoamerica was developed by Kirchhoff in 1943. It is defined as a geographical area where people share the same beliefs and cultural practices without being politically unified (Nichols 2012: 3). A state is a group of people who share the same laws and institutions and are living in the same delimited territory (Halperin 2014: 12). The engineering of the landscape, this means the alteration/management of the landscape for an intensification in agricultural use, can be seen as a single happening. Two cities can reshape the landscape differently for the same result. In doing so, people transfer their identity to the landscape (Nichols 2012: 541).

And fifth, the social structures could be composed of their own unity. The status in the social organisation of a society depends on the individual who has this status and on his relations with the society (Perez 2013: 24). The different social classes were more or less hierarchised by the ruling elite composed of the ruler

and its family, the high-status commoners consisting of artisans, merchants, administrators, and so on, and the lower-class peasants involved mainly in the rural activities (Manzanilla 2009: 7f.). The different social classes can share the same identity of the state or city they are living in, but the elite will have access to different goods and privileges. They will share parts of their identity with the elitist sphere of society (Chase et al. 2017: 189). An identity is not something durable. Indeed, it can be changed over time. People can gain, augment, or lose their identity through their social experience and practice in society (Martin 2020: 67). Every class or group shares its own ideology. A ruler was a prominent person who was represented on public monuments. People need to see them and identify themselves with his/her rules. Ancestors and deities were also represented to create a cultural tradition (Sanchez 2005: 262). The social differentiation enabled them to reinforce the group connection and their feeling of belonging to a community (Manzanilla 2009: 114).

- (4) The roles and norms of the community could have been transmitted through epigraphy and iconography, for example. This transmission permitted people to be bound together. Image and text are used together. The one is the complement of the other. Both use specific codes to convey a message that can be understood by people who are familiar with these codes (Prager 2021: 104). The difference between text and image media is the ability to understand the message rapidly (ibid.: 108). For example, an image can be more easily understood by a higher number of people than a text, even if an image can receive different perceptions. One must be familiar with the language and writing system to understand a text. The Mayanists could decipher the image faster than the text. Text and images often appear on monuments, but not every text can be visualised by an image (ibid.: 109). Text and images can be associated in different ways. They can be complementary if the text adds detailed information to the image. They are redundant if both transmit the same information. One can be dominant over the other media. For example, the image is more prominent than the text, and the image is more informative (ibid.: 110).

For Joyce, “the inscription of bodily appearance, in both small- and large-scale permanent media, was a mirror for everyday practices, a mirror against which

individual performances could be evaluated as better or worse citation of what was represented as the norm” (cited by Ardren 2002: 177). This means that visual media (stela, altars, lintels, and so on) were enacting the perfection of the social norms. It was an example for the people to follow. The more they imitated them, the more they respected the community's rules. Iconography can express the social reality and norms on how to behave, but it can also reflect the cultural ideals of the society (Rodriguez-Shadow 2007: 71; Zalaquett 2015: 43). Text and images are representations that “generally means the rules, norms, convention, and understandings- stated and unstated, conscious and unconscious- that collectively bind societies together and define what is proper conduct for their members and what is not” (cited by Martin 2020: 61). This means that people had to behave and act in conformity of how society defined it.

The social differentiation can be expressed through the text and the size of the glyphs. The more the glyphs are apparent and significant in size, the more the person has a prominent role in the scene or narrative (Prager 2021: 116). A written text, for Jenkins, is always commissioned by someone whose special aim is to convey a message to someone else (Martin 2020: 52). Images are qualified as the “depiction of cultural ideals” (cited by Jackson 2018: 4). The social order and the ideal relationship between the ruler and the citizens were represented in the monumental visual media (Zalaquett 2015: 21). The ruler had to show his power and his ruling ability to the community to unify them so that they realise tasks for him. The environment around the text and images actively participated in transmitting power to the character depicted (ibid.: 45f.).

In oral narratives or iconography, the norms of the behaviour and manners are transmitted to the people (Halperin 2014: 94). For example, the dwarves, Fat God, and aged figures are representations of the contradiction of the social norms (hypersexuality, egocentricity, and so on) (ibid.: 96). Gods were impersonated, but they could also represent some attributes of humans. For example, the Fat God was the personification of gluttony (Patrois 2008: 182). The Fat God was a regional specialty of the Puuc area (ibid.: 180). Grotesque beings have deformed bodies, but they wear human clothing. They are identified

as having a human identity and personhood (Halperin 2014: 115). The representation of elderly figures stands for knowledge, dignity, and respect (ibid.: 124). Zoomorphic figures like the monkey can represent social deviation and creativity (ibid.: 127).

To analyse the gendered categories of society, we need first to understand how the social organisation and the identities are working (Wharton) (Hughes 2008: 15). From birth on, the person will enter into the community and receive an identity through the name and gender (Rodriguez-Shadow 2007: 69). The production of food and cloth can be seen as elements of the feminine social identity (Dacus 2005: 18). For Stockett, social identity is a “means by which people experienced the world in a given context” (cited by Hughes 2008: 14). This means that it is an experience in which people share the same way of living in a defined place. To understand social identity, we need to look away from the concepts of agency and complementarity (ibid.: 13).

- (5) We will now have a look at the birth and childhood beliefs of the Maya. The Maya believed that men and women were created from maize (Rodriguez-Shadow 2007: 89). Menstruation and pregnancy are taboo for many Mayan cultures, such as by the Lacandon (Banach 2017: 143). The girls receive no education about their bodies and sexuality because it is taboo from a male perspective. However, women shared, probably among themselves, without the presence of men, these topics during their collective activities. Women can’t approach sacred places or participate in rituals. The women are not the problem, but their age and ability to reproduce (ibid.: 144). For the K’iche’, the first gods were a couple that were ascribed to complementary activities and fields of action (Rodriguez-Shadow 2007: 80). In the *Popol Vuh*, the goddesses were mentioned before the male gods (ibid.: 82). Ixcumane was the primordial mother, and she was placed as equal to men. The organisation of the society was egalitarian. However, the more gods were added, the more men received power (ibid.: 91). Marriage, as Perez investigated it, could have been seen as the end of the process of acquiring knowledge and the beginning of adult life (Perez 2013: 33). However, could this be true for the Classic period? After

Diego de Landa, women remained with the mind of a child because they couldn't think a lot, and they couldn't negotiate for themselves (Landa 1959: 47).

The pregnant women are ambiguous. Indeed, they are ascribed to healing powers, but also being a threat to the community and their family (Banach 2017: 145f.). Some terms, such as *kux* (Ch'orti'), *ayan* (Tzotzil), *poq'* (Pocomchi'), and *julel (ti) k'el k'in* (Ch'ol), mean, respectively, to live, to be, to come out, and to see the sun/the light (Mex 2019-2020: 43-47). *Sihyaj* (Classic Maya logogram) is another term that means the childbirth of humans and supernaturals (ibid.: 53). For the Maya, to be a person can be said *winik* (Classic Maya logogram). However, *winik* also means twenty: the twenty toes and fingers and the twenty days of the calendar (ibid.: 48f.). During pregnancy and after the birth of the child, the Mayan needs to realise many rituals such as defining his/her profession and his/her name. The name is a special event in life because it marks the entry into the social world (ibid.: 42). Childhood is a period of socialisation and integration into the community for the adult life period (Perez 2013: 33).

Childhood was not only a stage to pass through, but also had a special meaning for the community. Children were mainly sacrificed during the mortuary sacrifice ritual (Scherer 2015: 140). The infant sacrifice can be related to the myth of the baby jaguar that can be seen in some iconographical artifacts (ibid.: 145). Bloodletting is a ritual, but menstruation is something that can't be controlled, and people fear it because it could cause disharmony in rituals (Banach 2017: 145). Few myths show that women are dangerous. For example, Xtabay was a young and beautiful woman who forced a man to follow her so that she could kill him (Rodriguez-Shadow 2007: 100). The divine couple, Itzamna and Ix Chel, were a popular creation and showed the sexuality of women. Indeed, women with large, open hair signify that they are available for reproduction. If men had open hair, this was seen as a lack of personal negligence. Most of the time, the captives are represented this way (ibid.: 96). Moreover, the couple composed of a young woman and an elderly man was part of Mayan humour. This represented the unlikely couple. The reproduction of

the community and society wouldn't have been able to work this way (ibid.: 95f.). Another ritual that was perceived as a transition from childhood to adulthood was the dental modification (Scherer 2015: 30). Before any celebration, men and women need to be separated. Women have to care for their children during feasts (Landa 1959: 55). Women have to take care of their children until they are three years old (ibid.: 52).

During old age, women were no longer restricted by their fertility. They can participate in rituals and can achieve titles. For example, *tohil* (Lacandon) can mean that a woman could give advice (Perez Lopez 2013: 36). Old age can be seen through the deterioration of the body, such as tooth loss, a stooped back, or wrinkled skin. Goddess O represents the postmenopausal women (Scherer 2015: 41).

3.3) Maya women and power

We will now focus on the women and their power. This part will be divided into four categories: (1) marriage alliances, (2) legitimisation of the right to rule, (3) regency and co-ruling, and (4) the symbolism of power in epigraphy and iconography.

- (1) Let's start analysing the marriage alliances and their meaning for the Maya civilisation. Every dynasty wants to maintain itself even if it has to manipulate reproduction (Martin 2020: 173). The tree was used as a metaphor for the family or the dynasty (Masson et al. 2002: 67). Lineage was the dominant feature of the ruling power. The ideology, membership, and organisation came in second place to control the city (Gillespie 2000: 467). Patrilineage was the ideal model, but this term is not the best way to understand how the Maya socially grouped. Gillespie proposes to replace lineage with house. "Houses are corporate, long-lived units that are organized for specific ends. House members utilise relationships of consanguinity and affinity in order to legitimate expressions of unity and perpetuity" (cited by Lévi-Strauss in Gillespie 2000: 468). Lineage focuses on ancestry, whereas house focuses on the structures of alliance (Martin 2020: 174). A dynasty can be made by a lineal (from father to son) or collateral

succession (from an elder brother to the youngest) (Carrasco 1984: 43). Martin also adds that descendants can be done in two dimensions: horizontally to generate alliances, and vertically to secure the descendants (Martin 2020: 334). The birth order was important for the succession as it is seen in two terms: *sukunwinik* (older brother) and *itz'inwinik* (younger brother) (ibid.: 176). Primogeniture was the main rule, even if it could happen that the second-born child was used as the following successor (Houston 2018: 138). Women could take the throne in crisis periods, such as at the end of the dynasty or when the son was too young to rule (Rodriguez-Shadow 2007: 115). Women were used for the creation and continuity of the dynasty. The following figures show the family tree of some dynasties, which will be discussed in the subsequent chapters of this dissertation (Figures 16-29). For example, Stela 3 of Piedras Negras depicts a mother with her daughter on the throne (Figure 15). The mother is involved in the political sphere and educates her daughter for the throne (ibid.: 122).

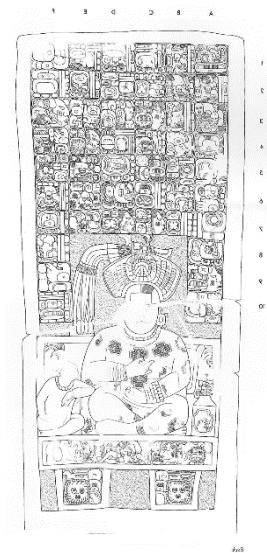


Figure 15: Stela 3 of Piedras Negras

Dynasty of Calakmul

King A

Chiik Nahb Ajaw, bat emblem
acc. 411 AD

Yuknoom Chen I

K'altuun Hix

520- 546 AD

Sky Witness

561- 572 AD

Yax Yopaat

572- 579 AD

Scroll Serpent

acc. 579 AD

Lady Scroll-in-Hand

Yuknoom Ti' Chan

619 AD

Tajoom Uk'ab K'ahk'

acc. 622- 630 AD

Lady ?
stela 28/29

Yuknoom Head

acc. 630- 636 AD

Yuknoom The Great

600- acc. 636- 686 AD

Yuknoom Yich'aak K'ahk'

? Claw of Fire
649- acc. 686- 695 AD

Utzen K'ab K'inich

Yuknoom Took' K'awiil

702- 731 AD

Lady stela 54
also stela 1 and 23 ?

Wamaw K'awiil

736 AD

Ruler Y

741 AD

Great Serpent

bat emblem
751 AD

Lady stela 88

Bolon K'awiil

771 AD

Lady stela 57/58?

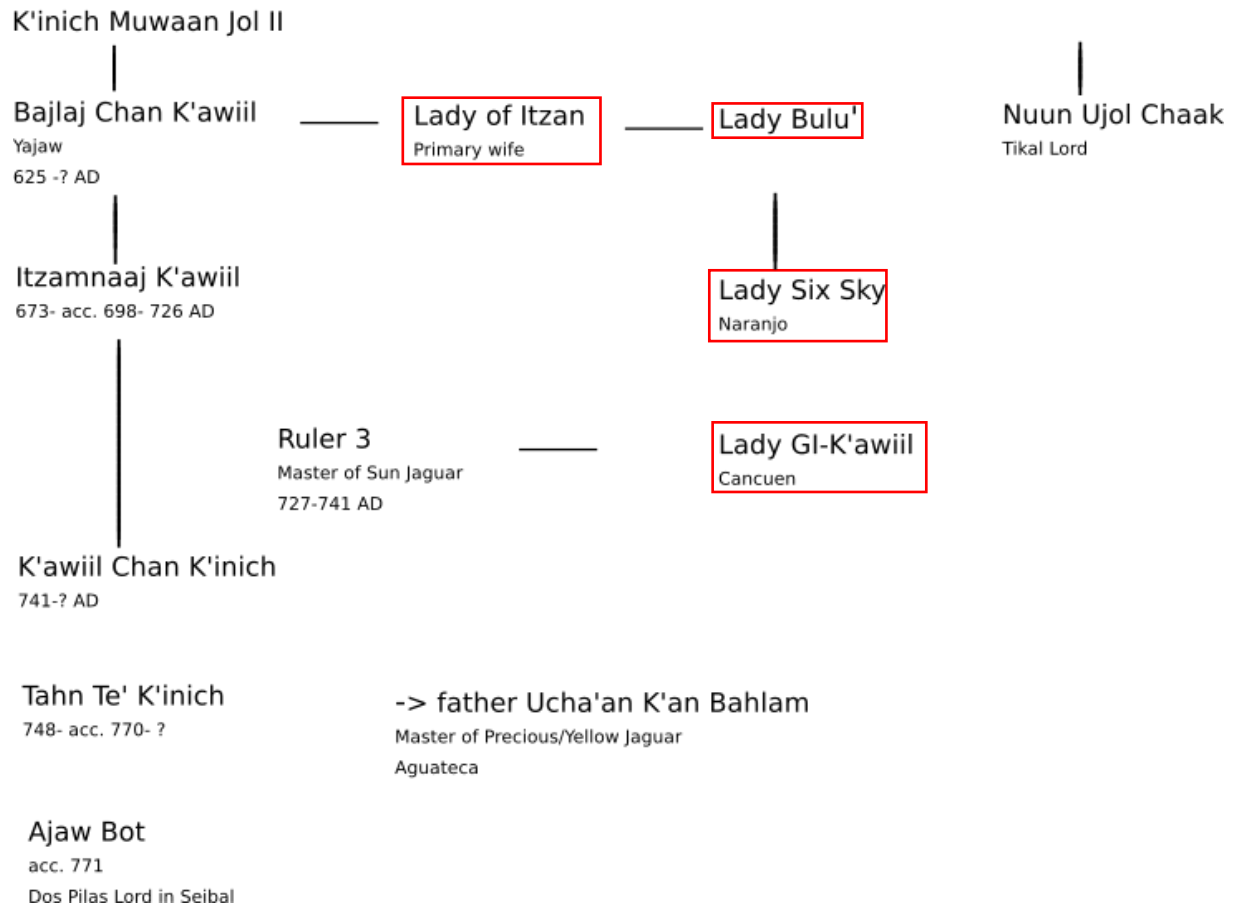
Chan Pet

849 AD

Aj Took'

He of Flint
899-909? AD

Dynasty of Dos Pilas



Dynasty of Caracol

Te' Kab Chaak
Tree Branch Rain God
331-349 AD

Yajaw Te' K'inich
400 AD

K'ahk' Ujol K'inich I
Fire Headed Sun God

Lady Penis-Head
Xultun

Yajaw Te' K'inich I
acc. 484 AD

K'an I
acc. 531 AD

Lady K'an K'inich

Yajaw Te' K'inich II
Lord of the Lineage? Sun God
acc. 553 AD

Lady 1

Lady Batz' Ek'
arrived 584

Chekaj K'inich

Knot Ajaw
575- acc. 599 AD
as co-ruler with his father

K'an II
588- acc. 618- 658 AD

K'ahk' Ujol K'inich II
acc. 658
ruled 29 days with K'an II

Ruler VII
702 AD

Tum Yohl K'inich
793 AD
supervision of Ixkun

K'inich Joy K'awiil
Radiant Tied K'awiil
acc. 799 AD

K'inich Toobil Yopaat
acc. 804 AD

=> stylistic change

K'an III
849 AD

=> shares prominence with other lords,
leading nobles or foreigners

Ruler XIII

Dynasty of Copan

K'inich Yax K'uk Mo'
Radiant First Quetzal Macaw
426- 437 AD
from Teotihuacan?

Lady in Red
Margarita tomb

K'inich Popol Hol
Radiant Mat Head
acc. 437 AD

Ruler 3

K'altuun Hix

Ruler 5

Ruler 6

Bahlam Nehn
Jaguar Mirror
acc. 524 AD

Wi Yohl K'inich
? is the Heart of the Sun God
acc. 532 AD

Ruler 9
acc. 551 AD

Moon Jaguar
acc. 553- 578 AD

Butz' Chan
acc. 578- 628 AD

K'ahk' Uti' Witz K'awiil
Fire-Mouth Water Spray K'awiil
604- acc. 628- 695 AD

Waxaklajuun Ub'aah K'awiil
Eighteen Images of K'awiil
acc. 695- 738 AD
stela H

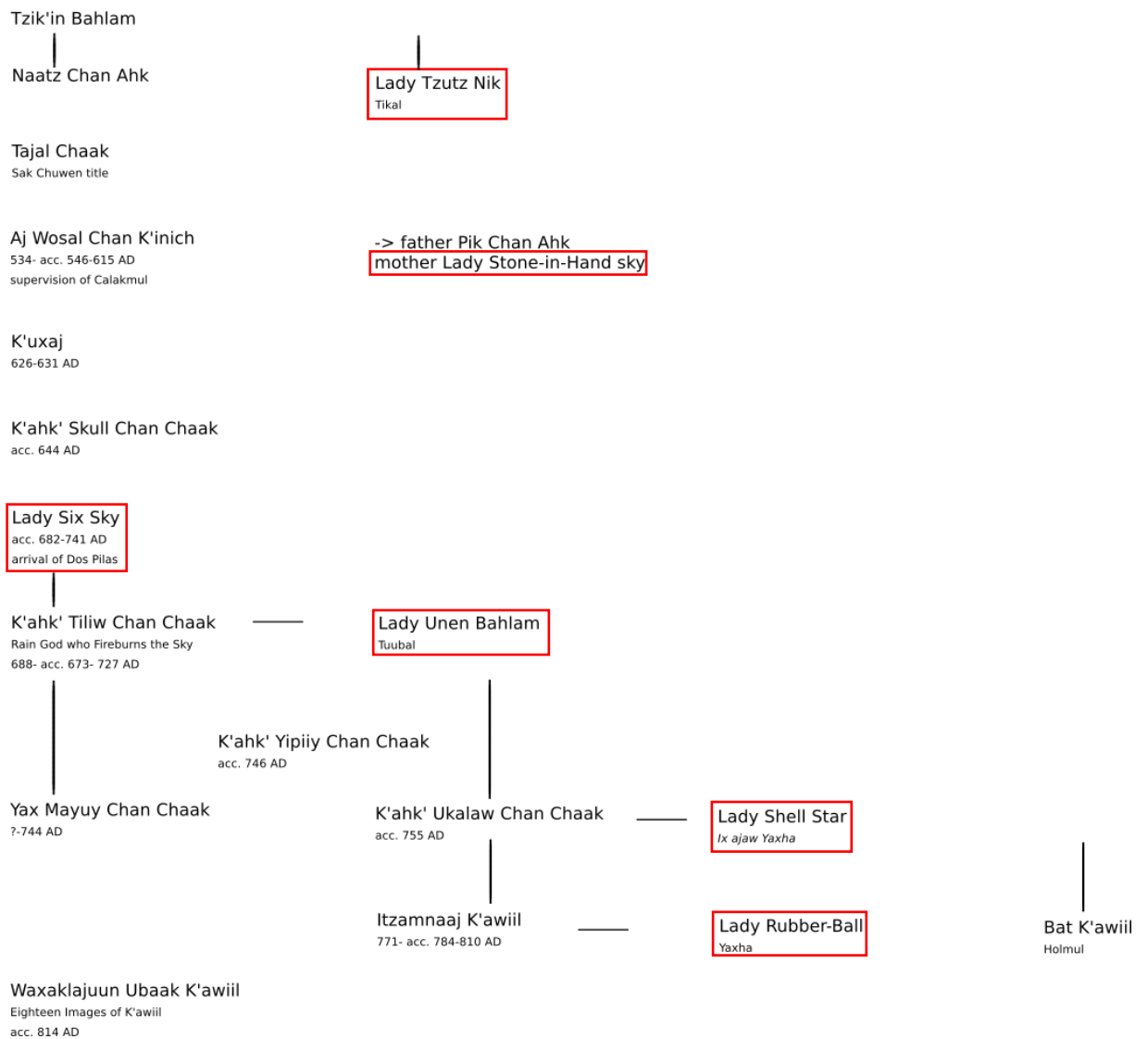
K'ahk' Joplaj Chan K'awiil
K'awiil that Stokes the Sky with Fire
acc. 749 AD

K'ahk' Yipyaj Chan K'awiil
K'awiil that Fills the Sky with Fire
acc. 749 AD

Yax Pasaj Chan Yopaat
First Dawned Sky Lightning God
acc. 763- 810 AD
mother Lady Chak Nik Te' of Palenque

Ukit Took'
Patron of Flint
acc. 822 AD

Dynasty of Naranjo



Dynasty of Tonina

Ruler 1

514 AD

Bahlam Yaxuun Tihl

Jaguar Bird Tapir

acc. 563 AD

Chak Bolon Chaak

589 AD

K'inich Bahlam Chapaat

606- acc. 615- 665 AD

Ruler 2

acc. 668- 687 AD

-> monument 99 with captive woman

K'inich Baknal Chaak

Radiant Bone-Place Rain God

652- acc. 688 AD

Lady Winik Timan K'awiil

Ruler 4

706- acc. 708 AD

share ruler with

Aj K'uhuun K'elen Hix and Aj Ch'anaah

mother Lady K'awiil Chan (?- 722 AD)

K'inich Ich'aak Chapaat

Radiant Claw Centipede

709- acc. 723- 739 AD

K'inich Tuun Chapaat

Radiant Stone Centipede

?- 762 AD

mother Lady K'ahk Nik Te'

Lady Moyal Chan K'awiil

Black Scroll

Ruler 8

756- 806 AD

He of many captives

share prominence with king *kaloomte'*

Ruler 9

Uh Chapaat

Moon Centipede

837 AD

Ruler 10

904 AD

Unknown ruler

909 AD

Dynasty of Palenque

K'uk Bahlam I
Quetzal Jaguar
397- acc. 431 AD

-> linked with entrada of Teotihuacan

Casper
422- acc. 435 AD

Butz'aj Sak Chiik
459- acc. 487- 501 AD

Ahkal Mo' Nahb I
465- acc. 501- 524 AD

K'an Joy Chitam I
490- acc. 529- 565 AD

Ahkal Mo' Nahb II
523- acc. 565- 570 AD

K'inich Kan Bahlam
524- acc. 572- 583 AD

Lady Yohl Ik'nal
acc. 583- 604 AD

Janaab Pakal

Ajen Yohl Mat

K'an Mo' Hix

Muwaan Mat
Lady Sak K'uk
acc. 612- 640 AD

K'inich Janaab Pakal
603- acc. 615- 683 AD

Lady Tz'akbu Ajaw
Toktahn or Uxte' K'uh

K'inich Kan Bahlam II
635- acc. 684- 702 AD

K'inich K'an Joy Chitam II
644- acc. 702 AD

Tiwol Chan Mat
?- 680 AD

Lady Kinuw

K'inich Ahkal Mo' Nahb III
678- acc. 721 AD

Lady Men Nik

K'inich Janaab II
742 AD

K'inich Kan Bahlam III
751 AD

K'inich K'uk Bahlam II
acc. 764 AD

Janaab Pakal III
acc. 799 AD

Dynasty of Piedras Negras

Ruler A
460 AD

Ruler B
478 AD

Turtle Tooth
508 AD

-> ties with Teotihuacan

Ruler C
acc. 514 AD

K'inich Yo'nal Ahk I
acc. 603- 639 AD

Lady Bird Headdress

Ruler 2
626- acc. 639- 686 AD

Lady White Bird

K'inich Yo'nal Ahk II
664- acc. 687 AD

Lady K'atun Ajaw
La Florida (political power)

Ruler 4
701- acc. 729- 757 AD
mother from Teotihuacan

Lady Huntahn Ahk
708 AD

Yo'nal Ahk III
acc. 758

Ha' K'in Xook
acc. 767- 780 AD

Rabbit Hand

Ruler 7
750- acc. 781 AD
mother Lady Bird

-> 810 AD abandonment

Yax Ehb Xook
First Step Shark
1 AD

Dynasty of Motul/ Tikal

Chak Tok Ich'aak
292 AD

Kaloomte' foliate Jaguar

Animal Headdress

Sihyaj Chan K'awiil I
Sky-Born K'awiil
305-308 AD

Unen Bahlam
317 AD (unknown sex)

K'inich Muwaan Jol
Radiant Hawk Skull

Lady Bahlam Way
Corozal- El Temblor

Chak Tok Ich'aak I
360-378 AD

=> Teotihuacan intrusion

Sihyaj K'ahk'
Fire Born
378 AD

Spearthrower Owl
374-439 AD

Lady of Tikal

Yax NuunAhiin I
Curl Snout
379-404 AD

Lady K'inich

+ lesser lord K'uk' Mo'
Quetzal Macaw

-> interregnum Sihyaj Chan K'inich

Sihyaj Chan K'awiil II
411-456 AD

Lady Ahiin

K'an Chitam
Yellow Peccary
415-458 AD

Lady Tzutz Nik
Naranjo

-> Maya + Teotihuacan style

Chak Tok Ich'aak II
acc. 486-508 AD

Lady Hand

Lady of Tikal
Ix ajaw, Ix kaloomte'
504- acc. 511-? AD
co-ruler Kaloomte' Bahlam

Lord Bird Claw
527-537 AD

Wak Chan K'awiil
508- acc. 537- 562 AD

Fire Cross

Lady Hand Sky of Bahlam
Ix ajaw

Animal Skull
562 AD

Ruler 23

K'inich Muwaan Jol II

Nuun Ujol Chaak

Lady Jaguar Seat

Bajlaj Chan K'awiil
Dos Pilas Lord

Jasaw Chan K'awiil I
K'awiil that Clears the Sky
acc. 682- 733 AD

Lady Lachan Unen Mo'
Twelve Baby Macaws

Yik'in Chan K'awiil
K'awiil that Darkens the Sky
acc. 734 AD

Ruler 28

Yax Nuun Ahiin II
acc. 768 AD

Nuun Ujol K'inich
? Headed Sun God
acc. 794-810 AD

Dark Sun

Jewel K'awiil
Holy Lord of Tikal 849 AD

Jasaw Chan K'awiil II
869 AD

Dynasty of Yaxchilan

Yopaat Bahlam I
acc. 359 AD

Itzamnaaj Bahlam I

Bird Jaguar I
acc. 378 AD

Yax Deer-Antler Skull
acc. 389 AD

Ruler V
acc. 402 AD

K'inich Tatbu Skull I

Moon Skull
acc. 454 AD

Bird Jaguar II
acc. 467 AD

Lady Chuwen

Knot Eye Jaguar I
508-518 AD

K'inich Tatabu Skull II
acc. 526 AD

Knot Eye Jaguar II
564 AD

Itzamnaaj Bahlam II
599 AD

K'inich Tatbu Skull III
613 AD

Bird Jaguar III
He of Six Stone
Master of Chak'al Te'
acc. 629 AD

Lady Pakal

Itzamnaaj Bahlam III
acc. 681- 742 AD

Lady K'abal Xook
of Sak Ook

Lady Sak Biyaan
ixik ch'ok

Lady Ik' Skull
ix ajaw of Calakmul

interregnum with
Yopaat Bahlam II
Piedras Negras
742- 752 AD

Bird Jaguar IV
709- acc. 752- 768 AD
mother Ik' Skull

Lady Great Skull

Lady Wak Tuun
Motul de San Jose

Lady Wak Jalam Chan Ajaw
Motul de San Jose

Lady Mut Bahlam
Hix Witz

Itzamnaaj Bahlam IV
young name Chel Te' Chan K'inich
mother Great Skull
752- acc. 769 AD

Lady Ch'ab Ajaw

Sister
married Yajaw Chan Muwaan
Bonampak

K'inich Tatbu Skull IV
Master of Turtle Shell Macaw
acc. 800 AD

Dynasty Coba

Ju'npik Tok'
acc. 505 => foundation of Coba

K'ahk' Chitam
acc. 534

Uhx Man

... K'awiil
acc. 600
Lady K'alomte'

Yopaat Taj ... Nah

Ixik Yopaat
K'alomte'

... K'ahk'?... Yopaat
acc. 574

K'alomte'
acc. 593

Ruler A
acc. 620
K'alomte'

Xaman K'awiil
acc. 633

Ruler B
Ixik K'awiil Ajaw
acc. 652

Ruler C
acc. 682

Ruler D
acc. 697

Ruler E
acc. 780
K'alomte'

Dynasty Bonampak

Wak Tzek' Yaxun Bahlum
acc. 409

Kan But Chuen
acc. 498

Yachay Ah Cu
acc. 521

Bahlum Hok'ich I
acc. 537

Lady Bonampak
acc. 593

Hun Ek' Tut
acc. 641

Moyil Chaan K'awil
acc. 658

Ah Chuh Uul Yaxun Bahlum
acc. 683

Chan Muwan I
acc. 705-718

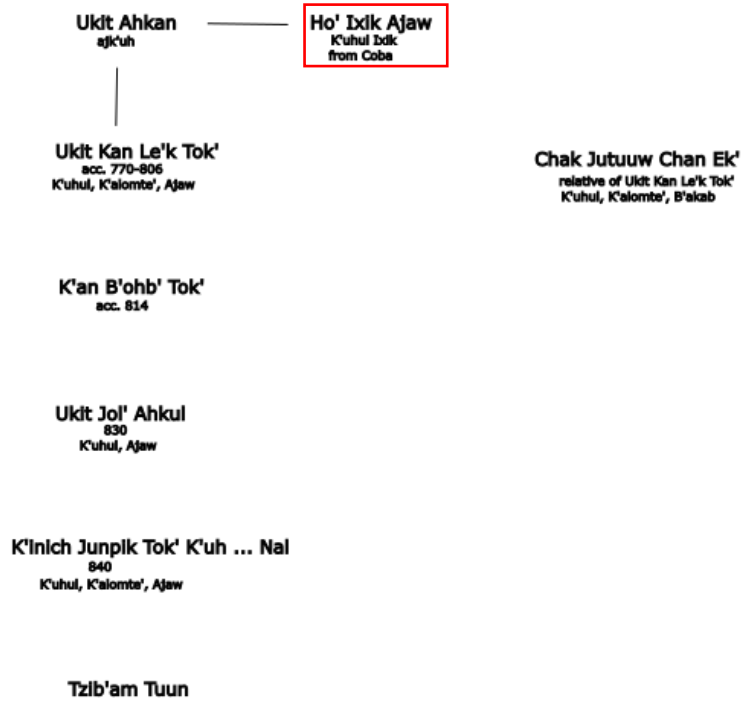
Ah Kan Tok'
acc. 716

|
Bahlum Hok' Ich II
acc. 743-775

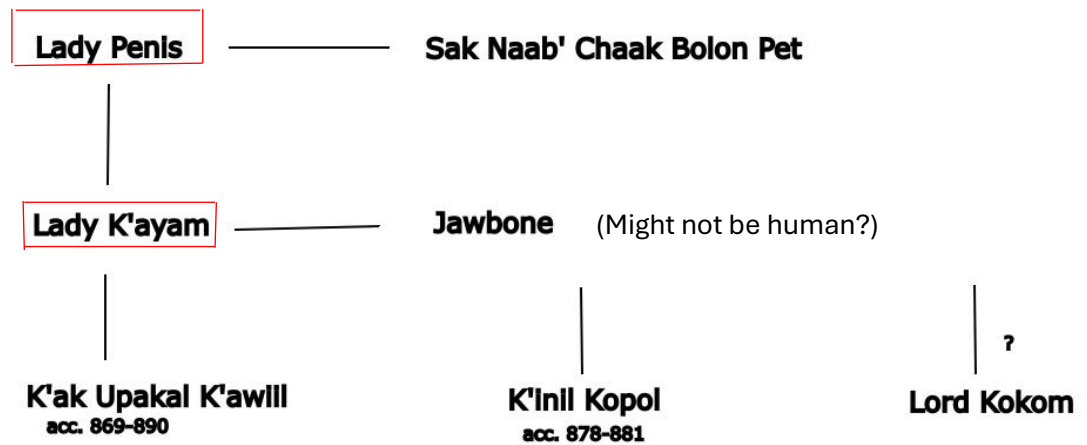
|
Ah Zac Huh
acc. 775

Chan Muwan II
acc. 776

Dynasty Ek B'alam



Dynasty Chichen Itza



Figures 16-29: Genealogical tree of the dynastic lines of some sites, realised by the author with the help of "Chronicle of Maya kings and queens: deciphering the dynasties of the ancient Maya", by Grube and Martin; Marcus 1987; Garza et al. 2012; Robertson 1985; archive INAH; archive Campeche, Guenter 2014.

Privileges are not immediately given at birth. "Ritual privileges refer to the exclusive right that discrete segments possess over the production, maintenance, usage, and distribution of particular items of regalia and ritual practices" (cited by Helmke 2010: 1). To enjoy these privileges, one must follow an investiture from others who already acquired privileges (ibid.: 1). The majority of the people only had one wife, but high ranked people could have more than one. Rulers and nobles used polygyny. This means that a person could have different wives. This was a strategy to create alliances with other cities. The son emerging from this relation was preferred to be the successor to the throne (Carrasco 1984: 43). The more a ruler has wives, the more heirs he has (Ardren 2002: 121). These sons were seen as a reserve of candidates who could succeed their father on the throne, whatever situation might come (Carrasco 1984: 75; Martin 2020: 103). Polygyny was linked to politics and lineage. For example, Bird Jaguar IV from Yaxchilan had four wives: Lady Great Skull from Yaxchilan, Lady Wak Tuun from Motul de San Jose, Lady Wak Jalam from Motul de San Jose, and Lady Mut B'alam from Hix Witz (Gonzalez Cruz 2011: 238; Mathews 1997: 361). Another example would be *yotoot ux yatan sajal*, which means the

house of the three wives of the *sajal*. The *sajal* had a primary wife and two consorts that came from different locations (Martin 2020: 181).

The scarce knowledge we have about the wives of rulers comes from Yaxchilan. The rulers Itzamnaaj B'alam and Bird Jaguar IV dedicated buildings and stone monuments to their wives from allied cities. Through their wives, they emphasised their power (Tiesler 2004: 245). We have only a few hints that women had a prominent role in decision-making processes. For example, we know that five women had the title *ajaw*: Lady Unen B'alam of Tikal 317 AD, Lady of Tikal 511 AD, Lady Six Sky of Naranjo 682- 741 AD, Lady Yohl Ik'nal of Palenque 583 AD, and Lady Muwaan Mat or Sak K'uk' of Palenque 612-615 AD (Gonzalez Cruz 2011: 240). In Palenque, through the epigraphy, three women could have been identified: Tz'akb'u Ajaw, the wife of Pakal; Lady Kinuuw Mat, the wife of Batz Chan Mat; and Lady Men, Nik, the wife of K'inich Ahkal Mo'Nahb'III (ibid.: 243). Women such as Ix Yohl Ihk'nal from Palenque, Ix Wak Chan Ajaw from Naranjo, and Ix Winikhaab Ajaw from Namaan were recorded in the inscriptions (Biro 2011: 1). Kinship terms found in inscriptions are *al* (child of mother), *nich* (child of father), *yitah* (sibling of), *yatan* (wife of), and *yichan* (brother of mother) (Ardren 2002: 123; Mex Albornoz 2020: 21).

The father had the task of finding the husband in time and place (if possible). The mother taught their daughter how to cook and care for the men (Landa 1959: 50). Deers were the first animals created by the gods. They represent the prey and the venerated ancestor (Chinchilla Mazariegos 2011: 166). For Braakhuis, deer hunting could be a metaphor for the search for wives (ibid.: 179). Landa affirms that nobody married a person with the same name; it was seen as a “gran infamia” (incest taboo) (Landa 1959: 48; Ardren 2002: 120). The Mayas were aware that endogamy was dangerous. It could cause some genetic malformations such as osteoarthritis and anemia (Rodriguez-Shadow 2007: 160).

Moreover, women participated in marriage ceremonies (Figure 30) (Biro 2011: 2). For example, we can see on Stela 2 the ruler Yajaw Muwaan II of Bonampak with two women (ibid.: 3). One woman is Ix Yax Chiit Ju'n Witz Noh Kan, who has the titles of Ix Pa'chan Ajaw and Ix B'aahkab'. This woman is of high rank and comes from Yaxchilan. She could be the wife of the ruler from Bonampak (ibid.: 4). The other woman is Ix Ahku'ul Patah, the mother of the ruler (ibid.: 5). In the inscription of this stela, we can identify the verb *nupaj* which means to marry



Figure 30: Bonampak Stela 2

(ibid.: 5f.). Scholars have deduced that in the marriage ceremonies, the first wife of a ruler was betrothed by the mother of the ruler and the next wives will be betrothed by the first wife. The first wife will have the role of the mother (ibid.: 8). From other glyph blocks, we can deduce that *nahwaj* means the presentation. The new bride is presented to the city (Martin 2020: 178). In Piedras Negras, K'inich Yo'nal Ahk II married Lady K'atun Ajaw from La Florida. This ceremony was supervised by Ruler 2 from Piedras Negras, the father of K'inich Yo'nal Ahk II (Grube et al. 2008: 145).

Marriage enables the daily activities of both genders to be divided, which are complementary and exclusive (Rodriguez-Shadow 2007: 60; Rodriguez-Shadow 2006: 24). Marriage is often linked to the modification of the house organisation: new members are being integrated, the daily tasks will be organised differently, etc. In the same house, the floor level may be different. This can show the different hierarchy status of the people living in co-residence in the same house (Arnauld et al. 2013: 479). In a patrilocality, the groom has to serve the bride's family in addition to the dowry. A matrilocality can be preferred if land access is limited (ibid.: 486). In the Late Classic (600- 900 AD), scholars found out that there was a tendency of patrilineality and patrilocality (Rodriguez-Shadow 2007: 63). If the marriage was matrilocal, this means that the household production was more valuable (Ardren 2015: 147). Three glyphs are worth mentioning here. *Atan* (Yucatecan colonial) qualifies the married woman for whom the husband had to pay the dowry (Mex Alborno 2020: 19). *Hul* (Classic Maya) means to arrive here. It could be used in relation

to the women who, through the marriage alliance, had to move to other cities (Martin 2020: 121). *Yetaaj* (Classic Maya) means accompanied by. Women could be accompanied by their servants, artists, workers, etc (ibid.: 127).

Marriage alliances can be retraced through the ruling dynasty (Carrasco 1984: 41). They can be inter-dynastic (between members of two different dynasties) or intra-dynastic (between members of the same dynasty) (ibid.: 45). Hypergamy qualifies a relationship where the man has a higher status than the woman, while hypogamy qualifies a relationship where the woman has a higher status than the man (ibid.: 45). Inter-dynastic hypogamy is a marriage alliance where the woman has a higher status than the man, and both come from different dynasties (ibid.: 45). In this relation it is the woman who brings status and wealth to the dynasty and city (land, slaves, goods, etc) (ibid.: 47). For example, in Dos Pilas, Lady Six Sky was sent to Naranjo to marry the ruler (Grube et al. 2008: 56). Inter-dynastic hypergamy is a marriage alliance where the ruler takes a woman from lower rank and another dynasty. In this relation a new dynasty can be created (Carrasco 1984: 54). The son emerging from this alliance has no privilege to obtain an office because the status of the mother is too low (ibid.: 55). For example, in Tikal, K'inich Muwaan Jol married Lady Bahlam Way from Corozal-El Temblor (Grube et al. 2008: 28), and Spearthrower Owl an overlord of Naachtun married a Tikal Lady (ibid.: 30f.). K'inich Yax K'uk Mo' probably originated from Teotihuacan and married Lady in Red from Copan (ibid.: 195f.). Janaab Pakal from Palenque married a woman from Uxte' K'uh called Ix Tza'akbu Ajaw (Botzet 2022: 3). This alliance was repeated by their youngest son, Tiwol from Palenque, who married Ix Kinuuw Mat from Uxte' K'uh (Botzet 2022: 4; Grube et al. 2008: 162).

Marriage plays an important role in intra-dynastic isogamy alliances. Both men and women come from the same dynasty and pertain to the same rank. However, the man has not yet achieved a high office (Carrasco 1984: 56). This relationship strengthens the solidarity of the dynasty, and the man, through marriage, will obtain a higher office (ibid.: 57). Intra-dynastic hypergamy qualifies a marriage alliance where a man marries a woman from a lower rank, and both come from

the same dynasty. This relationship is a strategy to keep the rulership in the dynasty (ibid.: 70). The dynasty members gain additional titles and offices (ibid.: 72).

Lévi-Strauss affirms that a double alliance can sometimes happen. On the one hand, a person can marry someone from a higher rank who lives far away. On the other hand, a person can marry someone from a lower rank and stay in his locality (Arnauld et al. 2013: 484). In the iconography, the direction in which the women are looking could be an indicator of a hypo-hypergamy relation. For example, if a woman of lower status is looking to the left it will be a hypergamy interaction; if a woman with higher status is looking to the right it will be a hypogamy interaction (Banach 2017: 16). Iconographical space can show the relationship, and the hierarchy of the protagonists depicted (ibid.: 17). The importance of women in the political area can be seen through the erection of paired stela from the ruler and his wife (ibid.: 20).

Women are crucial in making alliances. They can bring military support, wealth, materials, and goods, and transfer their status to other cities (Ardren 2002: 119). After Ardren, the social status can come from the titles, material wealth, performance of ceremonies and rituals, and accompanying people of prestigious protagonists (ibid.: 118). The space around the temples serves as a “hub for exchange, alliance-building, finding marriage partners, social interaction and other activities” (cited by Lucero 2007: 409). We could not find any hint of a marriage alliance without archaeological data. If we find traces of alliances, it will be only between two cities. The records are scarce (Flores Hernandez et al. 2013: 127). Glyphs can give information on the dynasties and alliances of intra-sites, inter-sites, intra-regional, and inter-regional relations (Marcus 1987: 66).

Rathje and Molloy, in 1974, found out that marriage alliances were linked to trade and economic interactions (Figure 31). Two years later, in 1976, Marcus Joyce discovered that foreign emblem glyphs were associated with women who married a ruler from the local site (Ardren 2002: 7). Both Palenque and Tortuguero share the same emblem glyph (Botzet 2022: 5). Women who are engaged in a matrilocal relationship don't wear the emblem glyph of the city in the inscriptions (Botzet 2022: 6). Ix Yan K'oj came from Palenque and married the ruler of Tortuguero.

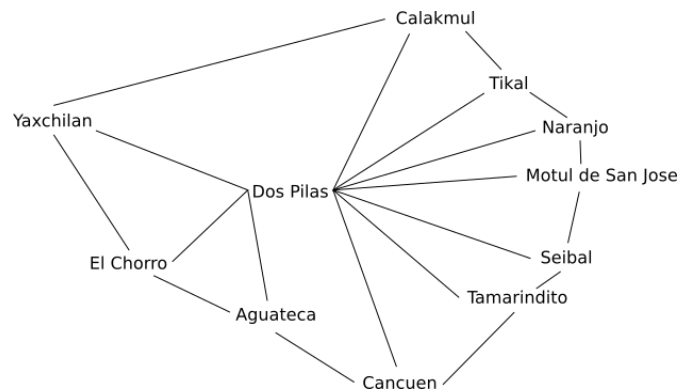


Figure 31: Example of network alliances of Dos Pilas made by the author with the help of "Chronicle of Maya kings and queens: deciphering the dynasties of the ancient Maya", by Grube et al.

She brought with her prestige and influence (Botzet 2022: 8). This was an inter-dynastic hypogamy marriage alliance. Martin affirms that both sites represent the split of the dynasty (Botzet 2022: 24). Trade and diplomatic exchanges with other cities permitted them to strengthen their position with rulers of other states (Nichols 2012: 284). The more a city was involved in a network, the better strategies this city used to create links (ibid.: 285). Interaction between sites was needed to build alliances through marriage, war, and economy (ibid.: 286). Pacts and marriages were socio-political strategies used by the Kanu'l dynasty (Banach 2017: 9). The Kanu'l dynasty was first located in Dzibanché and then shifted in the 7th century to Calakmul (ibid.: 10). For Foias, "once we understand the peculiarities of specific cases, we can understand the diversity among the different political entities in space and time, by conducting comparative studies" (cited by Banach 2017: 11).

Integrating a new city into an alliance depends on one city's control and influence over the other. The closer the city is to the alliance centre, the more it will be integrated (Banach 2017: 34; Martin 2020: 315). Military control of the territory can't be realised over a too-long distance. Indeed, after a certain distance, intermediary cities and alliances would have needed to be able to survey and control a vast territory. For example, Calakmul wanted to make war

with Tikal. Tikal, being too far away, needed an ally located in between. This ally in question was Naranjo (Chase et al. 2017: 224). Calakmul showed its supremacy over other sites through the erection of stone monuments. For example, Ahaw Tun K'ab Hix from Calakmul is depicted in other secondary cities under the control of Calakmul (Carrasco Vargas et al. 2000: 17). Caracol became an ally of Calakmul through a marriage alliance. Calakmul exchanged Lady Batz'Ek' for the trust and power over Caracol (ibid.: 17). Daughters are used as money of exchange in some political transactions (Martin 2020: 182). Foreign wives could have been taken from military conflicts of the losing cities to guarantee new alliances with them (Gonzalez Cruz 2011: 238). Rulers of secondary centres were controlled and overseen by primary centres. They could also send wives to secure their influence and power (Martin 2020: 254f.; Rivera 2020: 2). Lady Wac Kan Ajaw from Dos Pilas ruled for ten years over Naranjo. Even if her son could rule, she continued because Naranjo needed the allies and help from Dos Pilas (Ardren 2002: 1). During the Classic Period, Calakmul and Tikal were two major centres fighting against each other. Both cities created a network of alliances to gain supremacy (Carrasco Vargas et al. 2000: 17). Scholars found out that during the Classic period, some 60 cities created an alliance with Tikal or Calakmul (Figure 32) (Schele et al. 1998: 18). Military allies of two cities could share the same *kaloomte'* title between the two rulers (Martin 2020: 259).

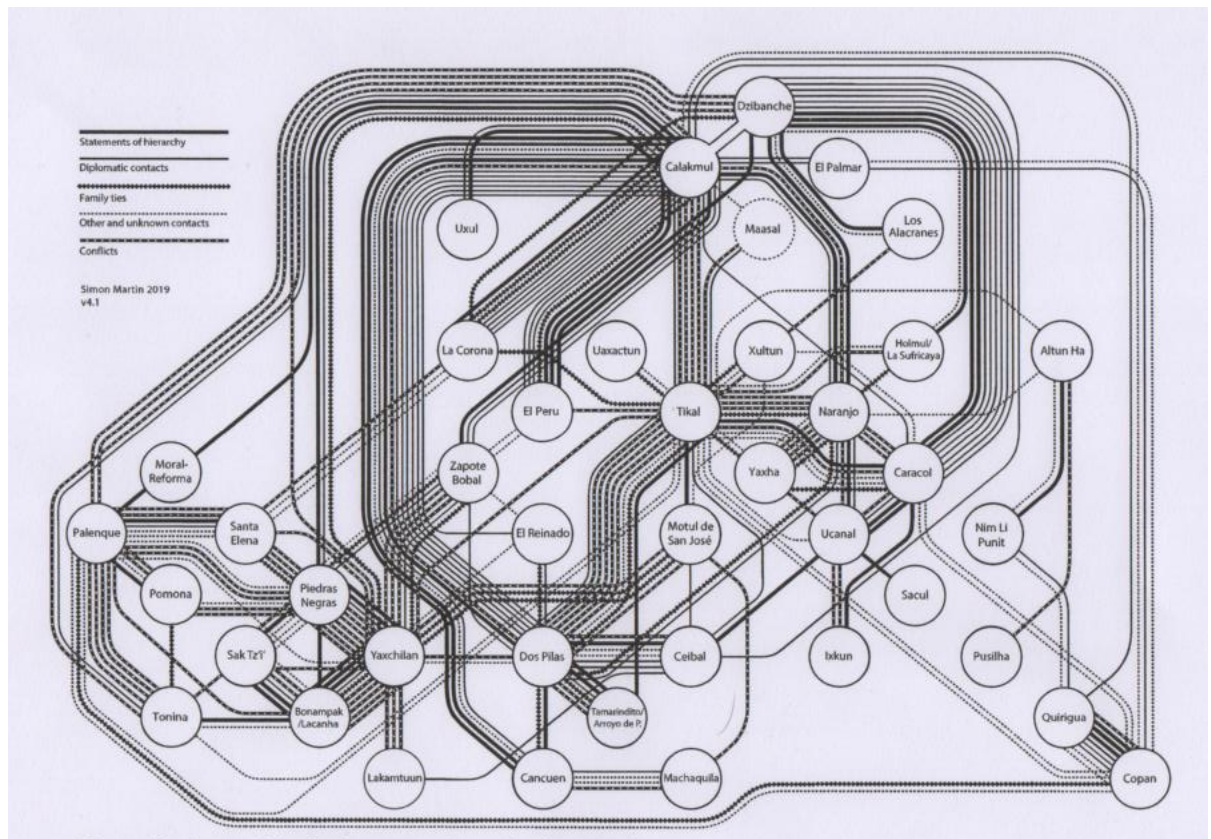


Figure 32: Alliances made by the centre of Tikal and the centre of Calakmul (Martin 2020: 308)

Gifts and tributes could have cemented alliances. Both events were marked by the textile manufacture of women (Dacus 2005: 20). In marriage, elite women bring their weaving tools to the relationship, and non-elite women get their food preparation tools (ibid.: 19). Women, through their weaving of textiles, contributed to diplomatic affairs. The exchange of gifts was a diplomatic way to seal alliances (Couoh Hernandez et al. 2015: 16; Chase et al. 1992: 23). Their activity was respected even if the priority was patriarchal primacy (Dacus 2005: 49). Having many wives means having many heirs and high production of textiles (Tremain 2017: 39). In Yaxchilan, glyphs found in the tombs attested that the wife of the ruler Shield Jaguar II came from Calakmul. One wife from Bird Jaguar IV came from Motul de San Jose (Couoh Hernandez et al. 2015: 17). Marriage can be seen as a gift economy where prestigious items are exchanged. For example, McAnany cites cacao, jadeite, spondylus, quetzal feathers, and cotton mantles as the most exchanged prestigious items (Harrison-Buck 2017: 106). Cacao was used as a currency and wealth for the Maya nobility (ibid.: 104). It played a significant role in sacred food for the gods and

elites, but also in ceremonies such as matrimony (ibid.: 105). Cacao production was not restricted to the elite. Everybody could produce it, but the elite was able to grow a higher number of trees (ibid.: 114). Gillespie and Joyce affirm that marriage alliances are an exchange of wives, but it is also a “basis for long-lived relationships between houses that create a network of social ties within and beyond a single society” (cited by Harrison-Buck 2017: 109). Cacao was often exchanged in marriage dowries because it was considered as a symbol of female-gendered goods (Harrison-Buck 2017: 114).

Marriage alliances also permitted foreigners to be accepted by the people. For example, foreigners like the Itza had no other choice but to marry into the local lineages to be accepted and integrated by the community (Ardren 2002: 155 and 166). The founder of Copan was K'inich Yax K'uk Mo', who probably originated from Teotihuacan. Text and images show that a woman was at his side to create the dynasty (ibid.: 92). She was native to the region and part of the elite. Through her, K'inich Yax K'uk Mo' could solidify his power (ibid.: 93). Individuals from Teotihuacan came to the Caracol region and married local women to create new dynasties (Chase et al. 2017: 203). These are inter-dynastic hypergamy marriage alliances. The title *ajaw* doesn't often appear in Caracol's inscriptions. We can think that there might have been a collective rulership strategy (ibid.: 205). During the Late Classic, the political order shifted. Powerful people lost value. At this moment, women saw their chance to achieve powerful offices (Rivera 2020: 1). The status of women changed as the Kaan dynasty appeared. Women could participate in decision-making processes. They were still in the minority, but they were more represented than before. The dynasty had perhaps a preference for matrilineal descent (Reese-Taylor et al. 2009: 64). The earliest emphasis comes from Caracol Stela 3 in 631 AD. Ix Batz' Ek' came from the Kaan dynasty and married a Caracol ruler. Many depictions of the mother-son relationship were represented (ibid.: 65). During the Early Postclassic (900- 1200 AD), men and women could achieve higher offices, such as rulers. However, men were preferred, and many women were put in leadership positions (Rodriguez-Shadow 2007: 67). The way the rulers were depicted through time indicates how the political power changed

(Flores Hernandez et al. 2013: 125). Paired monuments of the ruler and his wife were erected to honour the royal couple (Marcus 1987: 65).

- (2) We will now examine how the legitimisation of the right to rule was transmitted to the descendants. Two ways of validating the right to rule existed. On the one hand, the mother was permitted to install her son as ruler. She establishes the validity of having access to the throne (Ardren 2002:

8). The right to rule was usually passed from a male line whose founder was mythological or historical. The ideal situation would be from a father to the eldest son (Boot 2005: 382). However, prominent women could legitimate the right to rule. For example, the Oval Palace Tablet from Palenque shows the ruler K'inich Janaab Pakal seated on a double-headed jaguar skin (Figure 33). In front of him is a woman sitting. It is his mother, Lady Sak K'uk. She wears a netted skirt, and her headdress identifies her as paramount. We can deduce that



Figure 33: Oval Palace Tablet of Palenque (Tremain 2017 : 305)

she is the one through whom the lordship passed (ibid.: 391). One person is always sure to be the son of a mother. However, the identity of the father can be, in some cases, more difficult to know (Banach 2017: 88). In some succession situations, it was more important to be the son of a certain woman than to be the son of the previous ruler (Ardren 2002: 148). In a few cases, we can see an emphasis on the parental relations between a mother and her son because she gave him the legitimisation to rule (Martin 2020: 104). A person's pedigree is given when it is useful to testify and acknowledge where they come from, who they are, and why they are here as a ruler (Banach 2017: 96). In Tonina, the parentage affiliation is rare. However, we have one record, on Monument 138, of the mother, Lady Winik Timan K'awiil, of the ruler K'inich Ich'aak Chapaat. This could have significance in the right to rule validity (Grube et al. 2008: 186). Moreover, Lady K'awiil Chan must have had a prominent role during the reign of Ruler 4. She appeared on the memorial altar record of 722 AD (ibid.: 184). In Yaxchilan, Bird Jaguar IV took the throne after 10 years of interregnum. His work was to promote his legitimacy for the right to rule. Indeed, he was not the son of the primary wife of his father. He was not the favourite for the succession.

After giving some evidence of his pedigree, he could finally accede to the throne (Fitzsimmons 2010: 120). In Chichen Itza, four women (Ix Tanlah, Ix Nahel, Ix Cai, and Ix Imix Ahau) were identified by Michel Davoust (Boot 2005: 290). However, his women's identification can be put in parentheses due to their probably erroneous nature. We found kinship relations in the inscriptions emphasising the mother-son relation rather than the father-son relation. We can deduce that the mother was the one who legitimated the right to rule for the son (Ardren 2002: 153). The temple of the Phalli in Chichen Itza was a building that venerated the ruling lineage of *Ton* (penis) (ibid.: 164). Women who carried titles, such as the *Ton* name, were supposed to transmit power and status to the lineage (ibid.: 110). However, the existence of this *Ton* lineage at Chichen Itza lacks evidence for some investigators. The provenance of a person could also legitimate her power. For example, if a person comes from a more prestigious city, it will be used as a strategy to gain power to rule (Nichols 2012: 287). In Yaxchilan, Itzamnaaj Bahlam IV was the son of Itzamnaaj Bahlam III and a secondary wife of the ruler. He claimed his access to the throne (Grube et al. 2008: 129). In Copan, the ruler Yax Pasaj Chan Yopaat received legitimacy from his mother, Lady Chak Nik Te' Xook from Palenque (ibid.: 209). It could happen that the mother legitimised their sons to access the throne using some machination. For example, in Naranjo, Lady Six Sky, who originated from Dos Pilas, used her own rules of succession to put her son K'ahk Tiliw Chan Chaak on the throne (Banach 2017: 100).

On the other hand, the ancestors permitted their descendants to access the throne. The social hierarchy of a person can be acquired through their hard work or by their ancestors (Tate 1992: 20). The term used to define the grandparents and the ancestors is the same: *mam* (Scherer 2015: 52). The elite was responsible for the destiny of the city (Perez 2013: 39). Rulers were possessed by a sacred essence: *k'uhul*. They could interact with gods and humans (Martin 2020: 146). They ask the gods and the ancestors for advice and good fortunes (Lucero 2007: 409; Perez 2013: 47). Deified ancestors and forces of nature were the Mesoamerican gods (Martin 2020: 145). The visionary serpent ritual was linked with bloodletting (Tate 1992: 87). The vision serpent suggested an auto sacrifice that led to the divine guidance of the gods or ancestors in particular moments of a ruler's reign (ibid.: 90). This occurred when the ruler ascended to the throne, transformed from being a human to a divine being, and in the birth of an heir (ibid.: 91). This typical scene was repeated eight times in Yaxchilan (Mathews 1997: 127). For example, on Lintel 25 (Figure 34), Lady K'abal Xook holds a vessel with paper strips and a perforator. On her feet was also a basket with obsidian. In front of her appeared the vision serpent (ibid.: 154). Through the auto-sacrifice, she was able to communicate with gods and ancestors (ibid.: 155). The human head of the serpent can be a supernatural spirit or an ancestor. He appeared to give good advice to his descendants (Robertson et al. 1972: 76). The symbol of the giant skeletal snake and mirrors were seen as a portal that permitted them to connect to two worlds, that of the living and that of the ancestors (Schele et al. 1998: 113; Ardren 2002: 193). The ears, mouth, and nose were seen as portals that emitted or received winds to the body. For example, the soul goes away from the dead body through the mouth (Scherer 2015: 73). For the Maya, the ceiba tree represents the centre of the universe, the *axis mundi*. It is from this tree that the ancestors came from, and the dynasties emanate from it (Kowalski 1999: 335).

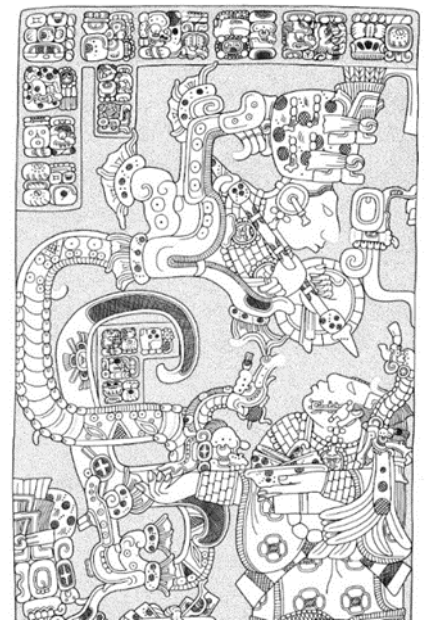


Figure 34: Lintel 25 of Yaxchilan representing the visionary serpent ritual (Tate 1992 : 204)

The burials that are discovered belong, most of the time, to the elite. They had an elaborate death treatment. The ruling elite received a funerary monument that kept their memory alive for prosperity and legitimised the right to rule for their descendants (Fitzsimmons et al. 2003: 449). A burial could be seen as a dynastic sanctuary, where the ancestors can be honoured and venerated by the descendants (Ardren 2002: 100). The skeleton was important for the Maya. Once the corpse is entered, the new seeds of humans are sprouting from it. They believed that the next generation emerged from the skeletal remains of the ancestors (Scherer 2015: 94). For example, the sarcophagus of the ruler K'inich Janaab Pakal retraces the ancestors back to eight generations (Schele et al. 1998: 117). Burials of males and females could have been taken as ancestors (Gillespie 2000: 473). For example, male and female ancestors are inscribed on the same sarcophagus, and the female name is cited first (ibid.: 473). The mother of K'inich Janaab Pakal was depicted as a cacao tree (Figure 35). The personification of the cacao tree was as a female ancestor (Harrison-Buck 2017: 108).



Figure 35: Lady Sak K'uk as a cacao tree (Notebook for 2021 Mesoamerica Meetings Workshop)

Even if they are no longer physically present on Earth, their ancestors continue interacting with humans. Their souls are shared with those of humans. People can interact with their ancestors. They have to go to the mountains, which are believed to be the home of the ancestors (Tate 1992: 15). The living space is important for the connection and affiliation between the person and the ancestor (Hillier et al. 1984: 143). De Zorita affirms that “where a man’s father and ancestors had lived, there must he live and end his days” (cited by Tate 1992: 21). The different building activities can be ascribed to the various rulers through their inscription of names in the facades or through the stone monuments used to inaugurate the buildings (Houston 1998: 235). Temples are buildings where the power of gods and supernaturals is located (Lucero 2007: 409). In the cities, the architectural program was based on the ancestors. For example, in Copan, the founder K'inich Yax K'uk' Mo' defined the city's core area. The successors took the already-standing buildings and expanded, elaborated, and reused the core area (Houston 1998: 233; Gillespie 2000: 469).

The core areas of the sites are an intertwining of buildings that commemorate the power of the ancestors and their descendants. In Tikal, the affiliation of a ruler to the founder could be seen through the architectural style. For example, K'an Chitam erected Stela 31 with a hybrid style. He used the Maya style to connect himself to the founder of Tikal, Yax Ehb Xook, and he also used the Teotihuacan style to connect himself to Teotihuacan's rulers, who installed a new dynasty because they were his ancestors (Grube et al. 2008: 34).

High-ranked people needed to commemorate their ancestors, and in doing so, they also showed their power and status (Welsh 1988: 191). In Yaxchilan, Shield Jaguar honours his parents; consequently, he also improves and states his power through them (Houston 1998: 205). Baines and Yoffee affirm that the commemoration of ancestors

“seeks to legitimize the whole order of society, along with the role of the elite, as cosmologically just. If it is to do so without simply imposing authority from above, it must offer real or perceived benefits to the rest of the society, but those who count most in perceiving the benefits are once again the elite” (cited by Masson et al. 2002: 80).

Kinship is legitimate as long as it can be expressed in the kinship and affinity language (Gillespie 2000: 476). Members of the lineage recognise the “common ancestor, control their collective property, maintaining names and identifying emblems, and regulating marriages” (cited by Gillespie 2000: 475). Rulers and their descendants could have taken the same name, adding the number. For example, in Piedras Negras, we have three rulers named K'inich Yo'nal Ahk. This means they were aware of the dynastic sequence (Valdes 1997: 17). The epigraphy and iconography of the elite were located in the city's core area, which served as collective memory and could sometimes be part of state rituals (Houston 1998: 203). During some festivities, the ancestors' remains were taken out from their burial places and used during rituals as a sign of honour and memory (Welsh 1988: 193). Bloodletting rituals celebrated the ancestors, the descendants, and the lineage (ibid.: 198). The bloodletting ritual was an act of perforation of the penis for the men and of the tongue for the women. It was often correlated to the accession or the birth of an heir. The bloodletting could

be implied by bowls and implements such as an obsidian lancet, stingray spines, rope, and paper strips. In Yaxchilan, Lintel 24 depicts the bloodletting ritual executed by Lady K'abal Xook, the wife of Shield Jaguar I (Figure 36) (Mathews 1997: 154). The kneeling woman placed a cord in her tongue's perforation while the man was holding a staff and standing next to her (Robertson et al. 1972: 84).

In the epigraphy, a central theme was the dynastic continuity of the ruler and, if possible, his linkage to the city's founder (Tiesler 2004: 229). Stone monuments give the narrative of the ancestors' traditions and history, starting with these words: “and here begins the count of days, the count of years” (cited by Tate 1992: 23; Frühsorge 2014: 174). By wars, invasions, or crisis times for the succession, unpopular rulers or ancestors could have been erased from the stone monuments to write history anew (Fitzsimmons et al. 2003: 452). During the Terminal Classic, the narratives of the stone monuments changed. The biography and personal events of the rulers are no longer carved in stone. The only important theme became the dynastic line and the legitimisation of their right to rule (Tiesler 2004: 231). We can see the decadence of the ruling power. Yaxchilan and Piedras Negras are two sites where we can see the record of rulers' achievements and that of their ancestors. They put special emphasis on it (Robertson 1973: 80). Rulership and power symbolism were depicted on public monuments so that everybody could see and understand that the ruler was in his right place. The ancestors were transmitting to him the power and the right to rule (Benson 1988: 57). Each ruler had to honour and venerate the ancestors. For example, in Copan, Ruler 11 erected the Stela P to glorify himself. He also added his connection to the founder of Copan, K'inich Yax K'uk Mo' (Fash 2011: 55). In iconography, if we have a series of people sitting together, it could be a representation of venerated ancestors (Hendon 1990: 141). Every ruler who ruled over Copan was carved and placed above his name,



Figure 36: Lintel 24 of Yaxchilan representing the bloodletting ritual (Mathews 1997: 156)

holding a torch in his hand (Figure 37). The passing of fire from one ruler to the other can symbolise the transfer of authority and power from the founder to the following rulers (Fash 2011: 45; Chase et al. 1992: 209).



Figure 37: Altar Q of Copan, K'inich Yax K'uk' Mo', the founder, passing the fire to Yax Pasaj Chan Yopaat, the last ruler (<https://www.penn.museum/sites/expedition/copan-altar-q/>)

- (3) The next part will deal with the regency and the different forms of shared governance. In the monumental inscriptions, we can find some proof of women as regents and rulers who wore military and scribal titles (Nichols 2012: 665). The rulers usually ascended the throne at around 28 years old. The accession of a ruler was made relatively late in a person's life. This was a natural selection to eliminate the weakest from the throne. If the ruler was young, there were great chances that he could die due to a high infant mortality rate. Moreover, at this age, he could have forged contacts with other people (Tiesler 2004: 233). However, at least four rulers and one female ruler ascended the throne when they were less than 10 years old. For example, the Ruler 4 from Tonina succeeded his father on the throne when he was 2 years old. Ruler 4 was too young to make decisions. Therefore, the ruling power was in the hands of his mother, Lady K'awiil Chan, and prominent nobles (ibid.: 235). Another example would be K'ak' Tiliw Chan Chaak from Naranjo. His mother, Lady Six Sky, was supervising him and was responsible for the regency. Lady Six Sky of Naranjo was a regent and co-ruler with her son K'ahk Tiliw Chan Chaak for more than 50 years (Banach 2017: 120). The mother-son relationship was unhealthy and can be perceived as a competition between mother and son for the throne. She erected more stelae than her son (ibid.: 100). She treated her son, consciously or unconsciously, as a husband. They appeared on a paired stela, like a ruling couple. The son wanted to take control. The 4th and 5th Stelae only depict him and not his mother (ibid.: 106). Lady Six Sky cited her son every time because it was through him that she could claim power (ibid.: 109). Women, as ajaw and regent, had to go to war and take the roles of men. They had to capture some prisoners. The Stela 24 (Figure 38)



Figure 38: Stela 24 of Naranjo (Peabody Museum)

of Naranjo depicts Lady Six Sky trampling a prisoner while her son, K'ahk' Tiliw Chan Chaak, was too young to rule (Reese-Taylor et al. 2009: 54). Regent women used genderless titles (Martin 2020: 117). The only case of a girl as ruler comes from Tikal. Lady Tikal accessed the throne when she was 6 years old. Lady of Tikal became *ajaw* in 511 AD (Grube et al. 2008: 38). The regency was supervised by Kaloomte' B'alam. He was a military leader of high rank (Tiesler 2004: 236). Every time we are facing a regency, we can deduce that there was a time of crisis. Whatever the situation, no successor of major age was available (Tiesler 2004: 236; Rivera 2020: 2).

Long reigns of rulers and periods of stability were followed by troubling times in the succession process. For example, in Palenque, the ruler K'inich Janaab Pakal ruled for a long time. After his death, his sons were old or died and only had a short period as rulers. The successor was then the son of the youngest dead brother. The succession and the dynastic line were in trouble (Banach 2017: 87). In some cities, we have the case that the elderly father was ruling with his son and future successor of the throne to avoid large and dangerous interregnum time for the lineage (Reese-Taylor et al. 2009: 52; Martin 2020: 109). For example, in Caracol, Knot Ajaw was the co-ruler with his father, Yajaw Te' K'inich II (Grube et al. 2008: 88f.). An interregnum period lasted more or less 200 days (Tiesler 2004: 244). The longest interregnum period known lasted 10 years. It was in Yaxchilan, at the death of Itzamnaaj B'alam II and before the accession of Bird Jaguar IV (ibid.: 243). "The longer the interregnum, the greater the suspicion that it silently points to a dynastic machination and disputes, even open conflicts" (cited by Martin 2020: 108). Kinship and lineage lines could be modified from the stone monuments and erased from people's memories. This was a political strategy to enable lower rank women or indirect successors to rule (Gallegos Gomora 2015: 90; Chase et al. 1992: 235f.). In Yaxchilan, during the interregnum of 742- 752 AD, Lady K'abal Xook, the wife of the dead ruler, lived six more years. She could have been the ruler during this period, or she could have kept the throne in tutelage with the ruler of Piedras Negras, Yopaat Bahlam II (Grube et al. 2008: 127). In

Caracol during the Terminal Classic period, we can see that before the abandonment of the city, more than one person was ruling. On the last monument of Caracol Altar 26, dating back to 884 AD, we can see two rulers exchanging (Figure 39). At the end of the Classic period, rulers faced a decadence of their powers and were forced to make a political transition by incorporating other elite members into the ruling activities (Chase et al. 2017: 216). Until now, three shared governance systems have been identified through the iconographic representations and ethnographies of the Spaniards. The system of *batabil*

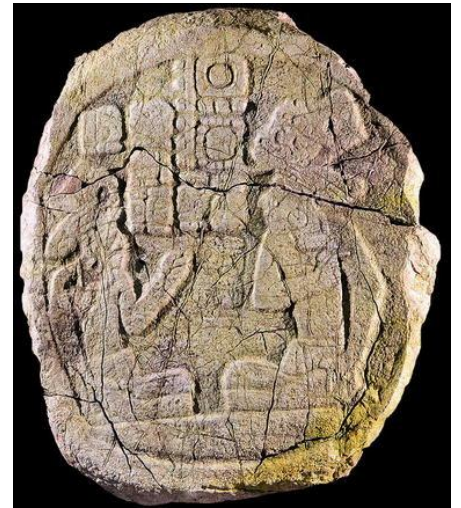


Figure 39: Altar 26 of Caracol (884AD)
(Chase et al. 2017: 205)

from Caracol was a shared governance held by selected individuals not coming from the same dynasty during a certain set of times (ibid.: 208). Mayapan and Chichen Itza were ruled by a form of shared governance, such as the dual rulership or the governing council (called *multepetl*) (Nichols 2012: 731; Boot 2005: 381). The *Cuchcabal* was an organisation of secondary centres' rulers whose power was linked to the primary centres. The head of the *Cuchcabal* was changed after a determined period so that every subordinate ruler could lead the organisation (Carrasco Vargas et al. 2000: 12f.).

- (4) The last theme that will be discussed is the symbolism of power, which can be deduced and identified through epigraphy and iconography. Maya art was malleable. It could evolve from a primitive art to a more elaborate one, or cities with other artistic styles could have influenced it (Patrois 2008: 239f.). Artistic styles could mark the political organisation, the authority and power of a ruler, and a community over others (ibid.: 235f.). The elite class was not homogeneous. Variations could appear from region to region and even from site to site (Arnauld et al. 2015: 46). For example, in Chichen Itza, two special sculptures from this site go together: the Maya throne (the seat for kingship) and the Itza chaac-mol (sculpture to make offerings to the ruler) (Miller 1999: 148). Chichen Itza can be qualified as a cosmopolitan capital, mixing Maya and different ethnic groups (Alonso Olvera 2013: 4). They give a historical narrative to the site. Symbols and imagery of power from the Toltecs and the Maya were incorporated and mixed to legitimise the rulership in place (Boot 2005: 457).

During the Postclassic time, in the lake region, two ethnic groups cohabitated: the Itza and the Kowoj. The city they founded was a mix of two architectural styles. The Itza architectural style was composed of open halls, raised shrines, and sculptures with special features depicted in them, such as birds, coyotes, serpents, and turtles. The Kowoj style was defined by defensive walls and two large temple assemblages as forming the ceremonial group surrounded by residential structures (Cecil et al. 2018: 159). One last example would be la Muñeca (Figure 40). La Muñeca is a female figurine with a hybrid style: she comes from Teotihuacan and has some Puuc designs. The femininity and hybridity of this figurine permit us to deduce that a new lineage was dominating (Ardren 2002: 85).



Figure 40: La Muñeca (Ardren 2002: 57)

The organisation of the Maya society can be seen and identified through art, architecture, and monumentality. We can have some hints about the royal dynasties, the succession patterns, the activities realised by elite women, and deduce the number of artisans that would have been needed (Webster 1997: 223). Architecture, iconography, and epigraphy can be seen as proof of elite action (Arnauld et al. 2015: 44). If women were represented in a full-frontal depiction as the men were represented, it could indicate that they could have achieved a high value in the public life of the city (Miller 1999: 122). Maya art was used to transmit the ruling elite's ideology (Kowalski 1999: 322). In iconography, when the ruler is depicted with others, it is always a way to benefit the ruler's power. For example, the ancestors showed the inheritance of power; the captives represent the military power of the ruler, and other protagonists in rituals emphasise the prestige of the religious power of the ruler (Sanchez 2005: 267). The status of an individual can be deduced through their depiction in proximity to the dominant figure. This is called the hierarchical space (Carter et al. 2020: 154; Tremain 2017: 61). Individuals depicted near the ruler could have been members of his family, servants, artisans, assistants, and consultants. They were linked to the ruler through a dependency relationship. Interaction scenes occur in culturally organised locations such as palaces (Zalaquett 2015: 40). The men-women relationship can be hierarchised or complementary (Perez Lopez 2013: 130). Women are depicted as smaller when they have a role as secondary

protagonists in the scene (Robertson et al. 1972: 62). Joyce defined complementarity as two people practicing different activities in which the final product needs the realisation of both activities. One person could not live without the other. Only together they can be seen as a whole (Perez Lopez 2013: 134). Art was a way to express the truth (Tate 1992: 34). The truth and its meaning were defined by the elite (Chase et al. 1992: 237). The historical and mythological narratives recorded on the stone explained the origin of the local people and the ruling dynasties, but not the origin of humanity. Common people are absent from the narratives and the records as if they have never existed (Chinchilla Mazariegos 2017: 40). The representation of the ruler and his wife was a way to mystify them and connect their actions to those of the gods. They depicted gods on earth (ibid.: 31). If the Maya represented women, they were depicted as goddesses or as giving fertility. On stone monuments and in the inscriptions, only elite women dependent on men, such as consorts, wives, or mothers, were represented or mentioned. Elite women of lower rank could have been depicted in murals or on ceramics (Rivera 2020: 1). “The decision concerning the erection of monuments and construction of buildings were geared toward specific situations of political and ritual significance and were partly calculated to create and nurture psychological cohesion throughout the polity” (cited by Webster 1997: 224). This means that the ruling elite decided when and what should be carved. The stone monuments were then placed in public space. Traditions and historical narratives are permitted to strengthen the link of the population through a shared ideology and a collective memory. To be part of a society means to be involved in a world of symbols whose meanings are shared and understood by their members (Geertz/Turner) (Martin 2020: 38).

On the plaza, the dominant feature of art was the rulership, whereas on the façade of buildings, the central theme was the supernatural and cosmological imagery (Sanchez 2005: 262). Rulership could be symbolically expressed through the tying of a headband (Dacus 2005: 12). Mat and jaguar pelt were two symbols used to express political and royal authority (Inomata et al. 2018: 208f.; Kowalski 1999: 278; Patrois 2008: 217). The fan was a symbol of rank and for the professions such as the traders and the ambassadors (Robertson et al. 1972: 80). The motif of the skyband could represent Heaven or the record of accession

events (Inomata et al. 2018: 208). In art, the ruler was often depicted frontally (Patrois 2008: 223). The *ben* sign symbolised maleness, patrilineage, and lineage ceremonies. In contrast, the *cimi* sign symbolised femaleness and the marriage ceremonies (Tate 1992: 81). Headdresses gave back the names of the wearer and the kind of activity he was practicing. For example, the Tlaloc and year sign headdress was mostly used by women during a bloodletting ritual (ibid.: 72). Blood was seen as a “cosmic channel of communication” (cited by Tate 1992: 59). The fish and flower headdress represented the underworld and was used during ball games (ibid.: 77). The cross in Maya art does not represent the cross of Christianity, but the world tree, the *axis mundi* (Scherer 2015: 55).

Monumentality was a “proof of king’s greatness, generated obedience and loyalty,” and it “served as education in history, philosophy, astronomy, and behaviour” (cited by Tate 1992: 31). Maya architecture gives hints of the power, ideology and social system of the city and of the ruler (Sanchez 2005: 261; Christie 2003: 157 and 281f.). Urbanism was a strategy to structure the society, hierarchise the people, and give identity and stability to the people and the city (Rivera Dorado 1995: 28). Through the accession, the ruler was seen as the new founder of the city, and he had to embellish it with his ideology and his belief of the world organisation (ibid.: 39). Competition between elites and the seeking for power could have been identified through monumentality, the network and alliances for exchanging goods, and the acquisition of powerful symbols (Houx 2010: 246). Rulers who took the throne for a long time could build their own buildings (Tiesler 2004: 237). Long-reign rulers waited a long time before constructing their monuments (ibid.: 239). When this happened, it was due to the foreign origin of the ruler and the complicated times of political succession. Rulers needed to be first well installed and accepted by the community before creating and emulating monuments of their power and authority (ibid.: 240). People for the architecture or the construction of new buildings didn’t start from scratch. They reused the available material. This could have a symbolic meaning for the continuity of the dynasty and the city. It was also less time-consuming (Houston 1998: 131). Modifications of buildings could signify a rise in the status of a person, a functional alteration, or a commemoration of an ancestor to legitimise his authority (ibid.: 135). The monumentality of the city

was equivalent to and proportional to religious and civic power (Rodriguez-Shadow 2006: 25). The art and the erection of monuments were also used as a cult of personality. For Ricoeur, rulers can become ancestors “only if, going beyond death, it guards against the forgetfulness of death and the dead and remains a recollection of death and a remembrance of the dead” (Fitzsimmons 2010: 119f.). Through his ideology, the ruler created his identity and activities (Rivera Dorado 1995: 24f.).

Monumentality indicates that mass communication occurred in a city or region (Lucero 2007: 409). Buildings are objects of beauty that have to be seen by the elites and the commoners. They represented features from the natural space. For example, the pyramids symbolised the mountains, and the plaza for the sea or watery surfaces (Schele et al. 1998: 13). Court buildings that served the ruling elite and their assistants were decorated with distinguishable architectural features. These essential buildings should have been eye-catchers. They expressed the power and identity of the ruler and the community through paintings, stucco, and carved stones (Inomata et al. 2018: 204). Kingship can be seen through the royal space of a city. This royal space comprised plazas, temples, palaces, and stone monuments. They showed the city's power, status, history, and ideology and, in the same way, the ruling elite (Martin 2020: 321). In the core areas of the cities, we can see that many rooms were built. This could be done to receive lesser lords. Indeed, lesser lords had to live in the primary centres during a time to control them and to avoid losing their alliance with secondary centres (ibid.: 350). Civic and ceremonial architecture are linked to a shared ideology (Nichols 2012: 120). It reflects a centralised political and religious institution (ibid.: 181). Political relationships can be expressed through the similarities in styles and iconography (Looper 2003: 46). For example, the relations between Copan and Quirigua were such in a good way that the ruler K'ahk' Tiliw Chan Yopaat recreated the core area of Copan in smaller shapes in Quirigua (ibid.: 64).

“The agency of kings could not exist without the agency of subjects who, whether treated as individuals or as a collective, were forced, obliged, persuaded, enticed, or otherwise motivated to enact royal projects by

contributing their own mental, physical, and material resources” (cited by Martin 2020: 56). The more a city was monumental, the more the workforce was organised by a ruler (Nichols 2012: 119). People are bound together into a community through a common understanding of the ideology, cosmology, traditions, and a sense of shared obligation (Tremain 2017: 27). The collective action to build a city or stone monuments was a sign of power. The ruler had to organise and unite people to realise his will (Chase et al. 2017: 215). Temples were public places for religious beliefs, but not only. They could have served as a “home for gods, place to worship, ceremonies, festivals and feast, storage facilities, workshop for manufacture, depository for offerings, forum of redistribution of food and gifts” (cited by Lucero 2007: 407). We can deduce that not all the temples were built only by the ruling family, but people of high rank could have also done it. The construction of individual residences required 50 to 100 days of work per human. Stone residences of the elite required 10000 days of work per human (Matos Moctezuma et al. 2010: 66). Commoner residences were made of perishable materials, whereas the elites’ residences were made of stone (Piedrasanta Herrera 2009: 95).

Portable art was used to spread political and spiritual powers to the community (Nichols 2012: 118). The elite used artefacts of jade and shell to represent their status and prestige (Nichols 2012: 808; Rivera Dorado 1995: 33). Ceramics that were not used daily could have been qualified as sumptuous, and they defined the status of the owners (Bonnafox 2008: 81). Ceramics were used and seen abundantly. For the elite, it was a way to promote themselves. Sumptuous ceramics were used as a strategy to show the status and prestige of the owner. This could have served to facilitate the negotiation of alliances through gift giving (ibid.: 91). Sumptuous ceramics can be identified through their technique, the materiality, and the time to produce the ceramic (ibid.: 92). Novelty has an important impact on the elite. Indeed, if few people can acquire a new and special kind of ceramic, it will, therefore, gain in value and prestige. The value will decrease if many people have the same object (ibid.: 92). Copies of sumptuous objects were produced. For Taussig, mimesis “is a copy that is not a copy. The copy is simultaneously like and unlike the original” (cited by Halperin 2014: 38). Mimesis in Maya art was used to order and define the world

without the necessity of the ruler's presence (*ibid.*: 41). Ceramics could also be exchanged for another object, a person, or a service (Bonnafox 2008: 96). For Mauss, the practice of exchange is a political strategy where two people are involved with asymmetrical dependency ties (Bonnafox 2008: 96; Masson et al. 2002: 239). For example, person A gives a sumptuous ceramic to person B. Person B will have to give something back to person A. She will be dependent on person A. In an exchange relationship where two people are from the same social rank, their status can be modified (Bonnafox 2008: 97). For example, if person A and person B are from the same social rank and are exchanging an object X, person A can gain prestige in exchanging items with person B.

The exchange of goods was not limited to the Maya area. Foreign and interregional relations were included in some networks (Chase et al. 2017: 229). The production of a surplus was used for gift exchange and the creation of alliances with other rulers and cities, but it was also used for public work, ceremonies, and feasts (Lucero 2006: 9). The elite asked the population to create a surplus. The elite used the surplus economy to exchange these goods with other rulers and to redistribute a part to the high-ranked elite. In doing so, they obtained more influence and power (Alonso Olvera 2013: 29f.). The more a city and a ruler can produce a surplus, the more they have political power (Lucero 2006: 9). During the Late Classic, the different cities had an interdependent economy. Indeed, each site or region produced a specific item. These items were then exchanged widely. In this network, every site depended on another's production (Chase et al. 2017: 187). For example, Xuenkal was a secondary site of Chichen Itza (Alonso Olvera 2013: 1). Xuenkal produced goods for Chichen Itza so they could exchange further to other territories (*ibid.*: 384). Increased population growth was a strategy to integrate the population rather than segregation. For example, houses were divided into more rooms to accommodate more people (Arnauld et al. 2015: 50). Río Bec was a rural region and not a political entity, where different people lived and shared as good neighbours (Arnauld 2014: 119). In Río Bec, people were living near to each other. This could have favoured competition between the high-ranked classes (Arnauld et al. 2013: 381). "Competition for prestige consists of rivalry for continual public recognition by supporters together with access to their labour

and resources” (cited by Clark and Blake) (Masson et al. 2002: 32). Competition was essential for the elite to gain more prestige. Prestige could be acquired through two methods. On the one hand, they could receive items, but through their rank and wealth, they could afford to offer more items in return (ibid.: 34). On the other hand, they could invest their resources into public or social work such as the construction of a temple, the dedication of a burial, etc. This action would benefit himself and the community (ibid.: 35). With the increase in population and elite competition, some rulers wanted to keep their power and were obliged to create new noble titles to avoid rebellions (Sanchez 2005: 271). Some court officials were coming from non-noble backgrounds. They could not create their own lineage and were less tempted to cause trouble. Common people would have been amazed at their gain of privilege and would not have looked for more, such as the elite people (Inomata et al. 2018: 36f.).

Through the stone monuments, it is possible to have some knowledge of the elite and their activities, beliefs, and historical and mythic narratives (Vargas de la Pena et al. 2005: 40; Miller 1999: 107). During the Classic period, the stela was the most popular public medium to transmit or convey a message, such as depictions of the ruler on thrones, in battle, with their parents or ancestors, and practicing a ritual (Christie 2005: 278; Patrois 2008: 217). The ruling elite commissioned the stela to represent their power. These monuments were placed in public locations like the plaza (Christie 2005: 277).

The Stela 29 of Tikal, dating from 292 AD, was the first dated record found until today in the Lowlands (Figure 41) (Grube et al. 2008: 26). Stelae were meant to be visible. However, they may have been relocated for a new ceremony, used as a building material, or had no more value in the collective memory and were discarded (Morton 2007: 107). Stone monuments could have been erected as a posthumous sign of remembrance. For example, in Yaxchilan, Shield Jaguar created the hieroglyphic stair 3 for his father, Bird Jaguar III, once he had died (Mathews 1997: 128). With his act, he claimed his power and right of authority for himself, but he enabled a collective memory in recording historical personages. The

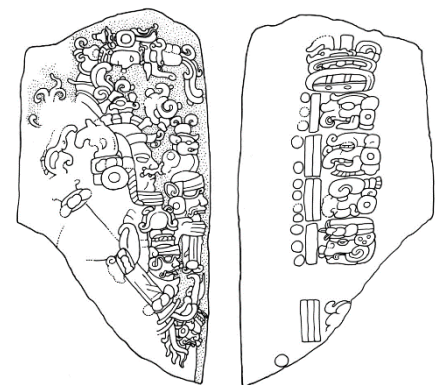


Figure 41: Stela 29 of Tikal
(<http://www.latinamericanstudies.org/tikal-stela-29.htm>)

stone monument transmits the worldview of the elite “and seek to advance their aims and interests, whatever their content, style or medium” (cited by Richard Blanton) (Martin 2020: 59). The ruler could sometimes be depicted as the *axis mundi* that connects the different worlds. For example, the waterlily sandals could stand for the aquatic underworld, the feathered headdress for the celestial world, and the belt assemblage could represent the terrestrial world (Looper 2003: 126; Christie 2005: 277).

A stela is a three-dimensional monument that depicts carved human or supernatural figures accompanied by hieroglyphs (Christie 2005: 277). The sun played an important role in the placement of the stelae. The narrative on the stelae had to be read from east to west, as the cycle of the sun (Looper 2003: 124; Tate 1992: 36). The human figures represented on the stelae had a naturalistic proportion, even if they were adapted to the local ideals of beauty (Tate 1992: 51). Stone monuments that were placed on a platform created a spatial barrier. The elevation of the ruling elite, carved in the stone, was above the crowd. It can symbolise power and the social hierarchy (Looper 2003: 91). In his activities, the ruler could have been represented with visual assistants such as captives or dwarfs. They were permitted to emphasise the superiority of the ruler (Patrois 2008: 220). For example, stelae, which mentioned the *K'atun* ending period, were crucial for the ruler. This erection of the stela gave importance to the calendar and the legitimacy of the ruler's power (Grube et al. 2008: 104; Frühsorge 2014: 173). Lintels 22 and 34 of Yaxchilan evoke women and their role in the kinship and legitimisation of the right to rule (Mathews 1997: 118). Lintels could have been reused as the building changed function or was expanded (ibid.: 71). Stone monuments were depictions of the political power of the ruling elite and an extension of his royal personhood (Halperin 2014: 18). The ruler couldn't be present in each allied city. The stela representing the ruling power depicted the person's body, but the stone monument also contained the essence of the sacred ruler. “They not only displayed an image of a person but manifested the body and essence of that person in a very literal sense” (cited by Christie 2005: 282). In the Puuc region, a ruler could have been carved without royal or political attributes. However, we know it is a ruler because this person was carved to be recorded. It can also

happen that the sign for rulership, such as the mat, was represented without anybody. This metaphor expresses the ruler (Patrois 2008: 222). From the 8th century on, the number of secondary elites grew. Increased competition for titles and power arrived. The more the number of competitors grew, the more the royal power lost value (Biro 2013: 83). On stelae, this lessening of the ruler's power could be seen through a group depiction. The ruler was no longer represented alone but in the company of secondary elites (ibid.: 84).

The style of art on the stelae was different from city to city. However, the same style was seen. This could mean that the two cities were in an alliance. For example, Tonina was engaged in military art. Many captives were represented. The style that appears on Tonina stelae originates from Palenque. Therefore, we can say that artists from Palenque were taken captive for the Tonina lords (Miller 1999: 119). Primary and secondary sites could have erected the same stelae. For example, Copan and Quirigua share the same stela, but the one from Quirigua is higher in scale due to her military superiority over Copan (Looper 2003: 95). In primary centres we can see an emphasis on the depiction of warfare victories while in secondary centres the focus lies on alliances of economic and diplomatic kinds (Martin 2020: 310). For example, Calakmul was a primary centre surrounded by other dependent cities (Marcus 1987: 113). Many stelae were paired. They represented the ruling couple (Grube et al. 2008: 106). These paired stelae were also seen in secondary cities such as Uxul. In Uxul, Stelae 2 and 3 represented the marital pair composed of a Lady from Calakmul and a ruler from Uxul (Marcus 1987: 120). The iconography in secondary sites focuses on alliances, dependency, and control. They need to do everything for the primary centre because they owe their wealth to them. We will discuss this theme later in this dissertation.

The transition between the Classic and Postclassic period was marked by a change in depicted scenes. The central theme was about militarism. The focus was on the powerful cities and their allied hinterlands (Nichols 2012: 124). Different forms of fighting could have been identified, such as capture, skirmish, surprise attack, battle, and war (Trejo 2000: 178). The cities that lost in the war were tempted to follow the enemy. During a battle, the fields were

no longer usable for a moment, and houses were destroyed. The reconstruction took time. Following the winner was permitted to secure the future (ibid.: 178). The first recorded war dates from the 5th century and was found in Tikal. It described the war from Tikal against Maasal (Grube et al. 2008: 37). Before entering the war, the Mayans consulted the position of stars and supernatural beings (Martin 2020: 220). Some days or months were more favourable for warfare than others (ibid.: 221). For example, during the rainy season, people are needed in the fields for agriculture. Warfare at this moment was nonsense (ibid.: 223). Stone monuments recorded the battles and warfare. The style and narrative of the iconography and epigraphy were commanded by the winner and realised in the cities by artists from the losing party (Trejo 2000: 180f.). Warfare and captives were recorded in the iconography or the epigraphy. However, archaeologically, this theme has left only a few hints, such as fortifications, battle injuries on the skeleton, and burned structures (Martin 2020: 200f.). Stone monuments were realised by artists who managed to give importance to their people, who were represented as captives (Trejo 2000: 182). The humiliation of captives was done through their naked appearance. Being naked was a way to dehumanise the person and to render them equal to animals (Miller 1999: 139). The captives were permitted to glorify the ruler of the winning party, and the captives were honoured through the artists and artistic style of the loser party (Trejo 2000: 184). Captives were associated with the ball game. It happened that they were “depicted as balls, named as balls and perhaps even rolled down the stairs of a ball court like the ball in the ball game” (cited by Chase et al. 1991: 11). The ballgame had a significant political role. It was permitted to execute people or recreate the narrative of the Hero Twins, but it could also solidify alliances (Martin 2020: 338). Tonina was famous for her militaristic depictions. For example, Monument 99 shows a unique representation of a captive woman (Figure 42) (Grube et al. 2008: 180). Bird Jaguar IV from Yaxchilan had a military title: *ah k'al baak*, “he of twenty captives” (ibid.: 130). In Tonina, Ruler 8 had the title *aj bolon baak*,

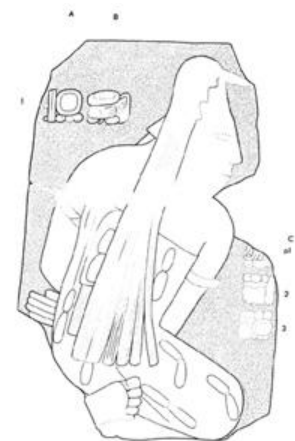


Figure 42: Monument 99 of Tonina

which means “he of the many captives” (ibid.: 188). This signified that they acquired additional power (land, labour force, prestige, etc.) through warfare

(Mathews 1997: 173). In Quirigua, K'ahk' Tiliw Chan Yopaat was captured in 738 AD, the ruler of Copan Waxaklajuun Ub'aah K'awiil (Grube et al. 2008: 218).

3.4) Space division in the Western worldview

We will see how both gender categories moved and lived in the eyes of the Western researcher. First of all, what does space mean to Western people? Space is an abstract location that exists through the senses and experience of the subject (Pollock 2003: 91). It has different dimensions: public and domestic (ibid.: 78). For Rousseau, there are two kinds of institutions. On the one hand, there are public and communal ones. On the other hand, there is the private/ domestic and individual (Rousseau 2009: 9). The differentiation of public and private spheres is the consequence of the division of gender (Pollock 2003: 94). Space can also be a spatial arrangement that depends on the point of view of the subject (ibid.: 81). Society created sexual differentiation. This can be seen in the asymmetrical relations expressed in language, social and economic power, and meaning (ibid.: 77). The social structure and organisation of people determined, for example, who painted what themes and how (ibid.: 76). Even if the gender categories are hierarchised, both are useful for society and the other gender. Women support the men; they are, for them, a kind of pillar (Bourdieu 1970: 157). Unmarried men can't achieve the same social cargo as married men. Women passed power to men through marriage. Both are interdependent. The man needs the woman for power, and the woman needs the man for living (Hopkins 2010: 2).

Women have only two dwellings in their lives: the house and the tomb (Bourdieu 1970: 159). Nature gave the power of reproduction to women and the need to be restricted to domestic duties. Therefore, it is nature and not society that determines the social norms for women (Rischmüller 1991: 118). Society believed that the female body was better preserved in a domestic area (Armogathe 1977: 22). For Aristotle, a woman needs to live confined in her house and must be subordinated to the man because she is a woman, and she is missing something in her composition (de Beauvoir 1976: 117). Their body is qualified as weak. It cannot endure the hard

life from the outside as men do. However, women tend to have more endurance and more ability to resist stress factors (Saraswati 2018: 28). The family and domestic area is where women were assigned to be by society (Wollstonecraft 1787: 104). Women are responsible for the family; they can't be active in the public sphere (de Beauvoir 1976: 171). The man is metaphorically the light from the outside, the sun, and the woman is the light from the inside, the moon (Bourdieu 1970: 160). The society and men want to see women in the domestic area. They don't want them to be useful in the public space. They are the Other of the men, and they are not complete. They can't practice the same activities as men, so they can't be in the same spaces as them (de Beauvoir 1976: 132). Hitler said that women belonged in the kitchen, they needed to go to church, and they needed to bear children ("Küche, Kirche, Kinder") (ibid.: 170). They couldn't be involved in the progress and modernisation of the public sphere. Men were responsible for developing and progressing life qualities, but they used it for themselves and didn't think about the women. They only think about their sphere of activity because they don't know the domestic space (Evans 2013: 94). For Rousseau, a woman attracted to domestic life will be less tempted to cause disorder in the public sphere. A woman with children will be more respected by society than a woman who doesn't have any (Rousseau 2009: 18). For example, in the 19th century, the identity of the artists was ambiguous. Male artists were involved in paintings with natural and outdoor themes. In contrast, female artists were recognisable through their paintings with domestic and child themes (Pollock 1981: 99). Women artists painted more domestic themes because the public arena was restricted to men. Even if they could walk in a public space, they couldn't enjoy public practices such as commerce or popular entertainment, for example, that were only accessible to men (Pollock 2003: 80).

Moreover, the duties of domestic life must be inculcated to women from a young age. The paternal house is the best education for the girls (Rousseau 2009: 522; Wollstonecraft 1787: 58). The best lessons are not taught in school but at home from the mother (Wollstonecraft 1787: 60). In school, girls learn about duties that do not require the employment of the mind such as music, drawing, and geography

(ibid.: 25). Wollstonecraft affirms that it is good if a girl knows a little bit of these themes, but their main duties must be domestic activities.

Women were absent from the public sphere. Historically, not much is known about women because of that. Only with a few testimonies do we know that they existed. Their roles and activities were hidden in the house, and the ones who testified about history were the men (Hopkins 2010: 1). The public space is mainly a male area. Buildings that are located there are thought to be for the use of men, to fulfil their role in society. For example, we could find an agora (administrative, commercial, and religious place) and a gymnasium in Ancient Greece. These two buildings were used exclusively by men and were located in the city's public sphere (Jowett 1885: 228). Men could enjoy freely between these two spheres, whereas women were restricted to the private sphere only (Pollock 2003: 95). For example, women who needed to move into the public sphere for their work were seen as a problem for the social norms. They didn't fully respect the definition of being a woman (ibid.: 96). Women can't have duties in public places because they are seen as children. Their maturation is faster and incomplete in comparison to men. Such as children, they are useless to society (Wollstonecraft 1787: 158). A woman can't go to the theatre because it is seen as a place made for cultivated minds (ibid.: 148). For indigenous people, a woman can't prepare food in the central place of the village. Public spaces are reserved for men (Lévi-Strauss 1958: 151). Malinowski affirmed that the "central place might be called the male portion of the village and the street that of the women" (cited by Lévi-Strauss 1958: 152). This means that the men can stay and evolve in the public sphere, whereas the women can only pass through the public spaces. However, in the 18th century in Europe, women became active in the public sphere. They could enjoy access to science, literature, and philosophy. It was such an emancipation of women that Montesquieu estimated that everything in France was made by women (de Beauvoir 1976: 141).

The way people look at a space can give us some hints about space division. It can have a strong meaning. Indeed, if a person looks at someone, it will be in a public place. Most of the time, the men were in public places. Therefore, the act of looking

could be determined as a metaphor for male sexuality (Pollock 1992: 102). Men have the power so that they can look. Public places are their space. Women were most of the time confined to the domestic area. They were not habituated to public places and were inferior (ibid.: 107). Men and women come from two different spatial spheres. They are interested in other things, so they look or observe differently, too (Pollock 2003: 122). Men look, and the women observe. Both gender categories perceive the world differently (Pollock 1992: 106). A person X looking straight at person Y will provoke an asymmetrical relationship in person Y. Person X, through their visual manner, will show their power to person Y (ibid.: 111). The person looking at someone is the subject and the active person. The other person is viewed as a passive object (Pollock 2003: 124). For Foucault, men look at women in this manner because they think they need to oversee and discipline women in such a way (Pollock 1992: 112).

3.5) Gender roles/ activities in the Western ideals

This subpart of gender analysis will be about the gender roles/ activities within Western ideals. Here, the focus will be divided into ten themes. We will first look at some (1) generalities and (2) the perception of the world of both gender categories. Then we will see the (3) importance of ancestors, (4) childcare, (5) emotional qualities of women, and (6) education. The next theme will be the different (7) gendered activities in some areas of society. After that, we will discuss the (8) gender inequalities. And finally, we will deal with (9) matrimony and (10) the concept of dependence.

(1) Let's start with the generalities. Culture is the mechanism that constructs and determines the different gender activities (Pollock 2003: 12). Cultural practice is a way to give sense to the social norms of the society people are living in and to reproduce it through time (ibid.: 9). To live means that a person has to observe and follow the rules and norms in relation to power and to others in a way to create and recreate the community's ideals (Butler 2004: 226). Gender is a tool used to organise the relationship between gods and people. For example, in Greek mythology, gender is permitted to organise the cosmos, the community, and the family (Brooke 2019: 128). The social hierarchy is what brought the

sexual categorisation of the activities (Pollock 1981: 51). Men and women are involved in different activities that were defined and determined by society (Butler 2004: 182). The status and norms are defined by the concrete situation and location in which a person is at that moment. Nothing is predefined; therefore, everything is possible. This means that the status and norms of a person can be changed through action at every moment in society (Armogathe 1977: 20). Two sorts of society exist: the sexes (its purpose is the reproduction of the species) and the general society (distinction of Man and other animals) (Burke 1833: 36). People think they know who they are but their agency is only related to their relationship and position they occupy in the social system (Saraswati 2018: 29). In a monarchy, women had to show to the society her status and wealth (Montesquieu 1973: 209). In a despotic state, women are possessed and feared by men. They are used to gain prestige but could also cause indiscretion, envy, and rivalries (ibid.: 210). In a republic, women are free, but they are the captives of the moral (ibid.: 211). For example, by the Romans, there was a domestic court overseeing women's manners (ibid.: 213). Society created notions of gender and determined which activity would be realised according to which gender category. However, society can be changed and is malleable during periods of crisis or structural change. At this moment, the different gendered activities can shift (Connell 2013: 166). For example, during the World Wars, women could participate in activities reserved for men. They could be present in the industry. The society accepted this shift in gender activities because it was a time of crisis, and the men were needed elsewhere. Once the situation returned to normality, the women had to abandon their new activities. The society and the men wanted to come back to normality. In a patriarchal culture, the social construct determines and creates the term woman (Simone de Beauvoir) (Pollock 1981: 154). Gardiner affirms that “it is impossible to understand women’s class position without understanding the way in which sexual division shapes women’s consciousness of class” (cited by Pollock 2003: 27). This means that to understand what it means to be a woman we must first analyse and understand how the society defines and divides the two gender categories and which role they have to play.

The world we are living in is a man's world. Many books talk about women. Men wrote them to ensure their authority over society (Pollock 1981: 1). Women are seen as a threat to the morals of society and the interest of the men (de Beauvoir 1976: 25). Men made the history of women, and the problems of the women were always a problem of the men (ibid.: 172). A woman is of little use to society because she is still considered as a child who hasn't reached maturity yet. She is of "so little use to society that her death would scarcely be observed" (cited by Wollstonecraft 1787: 158). Both genders improve or corrupt each other (Wollstonecraft 1989: 147). Men want women to be chaste and modest, which becomes their quality. Men accuse women of their misdoings (de Pisan 1986: 233). Women can live without men. They are not strong because men and society see them as weak. This means that the social norms define women as weak to emphasize more importance to the condition of men. They want to promote their gender. This strategy devalues women, but in reality, they are stronger than men (Rischmüller 1991: 8). The social structure was made through a comparative method. If others are not better than me, I am not bad. If others are worse than me, then I am complete (ibid.: 73). Men need to honour their sex and, therefore, are involved in activities that require force and that are dangerous (Rousseau 2009: 247). Women's power must be acquired through their beauty and weakness (Wollstonecraft 1989: 70). Being a citizen depends on gender and their activities. Men need to be involved in civic life, whereas women need to manage the family (ibid.: 154). In society, men are essential for their careers, and women come in second place with their ability to reproduce (Saraswati 2018: 27). Parents are unsatisfied when they receive a girl because they generate many expenses and need to oversee them constantly. The boys bring more income into the house (de Pisan 1986: 138).

In the book *La cité des Dames* by Christine de Pisan, she said that God created the patriarchy. We should not question it. However, the role of women must be valorised more instead of wishing for a change in the distribution of the activities between the gender categories (de Pisan 1986: 20). Women are seen as a whole because their activities are not specific to a person, but a group shares it. Men are seen as individuals because they realise special activities that aren't shared by many (Pollock 1992: 80). Humans are not made for living in isolation.

They have a social nature. Being more social than women, men can't be isolated to a herd like "the domesticated animals" (cited by Schell 2012: 158). Sexual differentiation appeared with the beginning of property and family. Women were ascribed to a sedentary lifestyle where they had to keep an eye on the house and raise the children. Meanwhile, men were hunting and looking for subsistence for the community (Rousseau 1985: 46f.). Women worked inside their homes. This closed and poorly illuminated place was a strategy to weaken women even more. Indeed, after a time in a black atmosphere, the eyes will be in pain and feel weak in the bright sunlight. Women won't try to escape their homes because they feel pain (Burke 1833: 166). The division of labour means that the paid and unpaid work is distributed and realised by both genders to maintain a home and a family (Evan 2013: 198). Men and women are doing different activities. Society confined women mainly to unpaid duties such as cleaning, sewing, childcare, and cooking (Connell 2013: 19). Work that was paid was reserved for men, and unpaid work was accessible to women (ibid.: 114). The social norms can accept that a woman is involved in male work, but not the contrary (Bordo 1993: 724). Women can't realise men's work; they can only imitate it (Pollock 1981: 7). Every person learns something from imitation. For Burke, it is "one of the strongest links of society" (cited by Burke 1833: 48). The activities of both gender categories are different, but the result is common for both (Rousseau 2009: 480).

- (2) Men and women have different perceptions of the world. For example, both have a cardinal direction and perception of the East that might be located differently in the universe depending on their gender (Bourdieu 1970: 170). They evolve in two different worlds that can be qualified as culturally different (Olson et al. 2018: 34). We can even believe that they come from different planets due to their complex opposition. In 1992, the book *Men are from Mars, women are from Venus*, tried to explain how both genders communicate, think, perceive, react, and love (ibid.: 29).
- (3) The next theme will be understanding the importance of ancestors. The incarnation of the ancestors could signify prestige, hierarchy, or a representation of the pantheon of the gods (Lévi-Strauss 1958: 292). Birth is metaphorically

the birth of the 3rd generation of the ancestors (Bourdieu 1970: 155). For example, a person's birth is the rebirth of their great-grandparents. In many cultures, virginity was important. That is why the umbilical cord of the girls was buried behind the weaving loom: to protect them from evil men (Bourdieu 1970: 154). The ancestors' goods could be kept and considered as an heirloom. In a patrilineal system, the succession and heritage pass from the father's lineage to the next generation (Hopkins 2010: 3).

(4) Childcare was an important activity realised exclusively by women. Women are responsible for reproduction, and they have to take it seriously. There is a risk of depopulation (Rousseau 2009: 16). A pregnant woman needs special adaptation. For example, she needs to practice her duties carefully and have a special diet (Jowett 1885: 240). They need to stay home, care for their body, and have rest time. That is why society confines its activities to the domestic area. It is supposed to facilitate their lives and reproduction (Rousseau 2009: 477). The mother, who is confined at home, must suckle her children. Her milk is the best nourishment for them, and it provokes maternal affection in the mother (Wollstonecraft 1787: 3f.). If mothers give their children to the nursery, they will learn bad manners. They won't be in the same emotional bond as women who keep their children with them at home (ibid.: 9). They need to raise their children with tenderness, cleanliness, and patience. These are the qualities of women (Rousseau 2009: 35).

(5) Women are defined through their ability to express their emotions. Women need to express their emotions that show their sensibility and taste of the world they are living in (Wollstonecraft 1787: 43). For society, women need to be tender, attentive, hardworking, and sacrificial (Connell 2013: 19). Women are created to feel and not to reason (Wollstonecraft 1989: 70). For Poster, women are weak and emotional, whereas the men are aggressive and active (Pollock 1992: 51). The sensibility is innate in women, but it can be strengthened through the use of reflection (Wollstonecraft 1787: 114). For example, humility is a quality that women should have. It is not innate but something that needs to be cultivated from a young age. The parents are responsible for raising their children in a way that they learn the good values and manners of society (ibid.: 64). Moreover,

their virtues can't be compatible with the strength of mind. Indeed, they can't be contradicted in the company or doing any activity that requires manual strength (Wollstonecraft 1989: 67). However, they must have qualities such as good humour, patience, and flexibility (de Pisan 1986: 276). A capricious and ill-humoured woman can disturb the man in his practice of social norms (Wollstonecraft 1787: 122). Women should love and use charity not only for their families but also for society (ibid.: 141). Women must always be benevolent and attend to men with a willing smile (ibid.: 120). Wollstonecraft affirms that if a woman was not doing things with delicacy, she should preferably remain single (ibid.: 69). A woman can have a friendship relationship with a man, but this relationship should not create a passion disillusion (ibid.: 88). The passion should not disturb the mind of women in fulfilling their duties (ibid.: 91).

- (6) The following theme will be education. Education was defined and taught by men. Education is given differently if the person is a man or a woman. Women need to be weak so their education will not strengthen their minds as men's. They don't need it for their activities (Wollstonecraft 1989: 33). Education and acquisition of domestic duties were more important than the education of the body, strength, and mind (ibid.: 9). People are civilised through education. Women have the greatest need for it, that is why it happens in the early years of life (Rousseau 2009: 5). A mother should teach the essential duties of domestic life and the way to be a woman and a mother to her girls (Wollstonecraft 1787: 60; Wollstonecraft 1989: 29). Girls learn with pleasure sewing, embroidery and lacemaking, but they dislike learning how to read and write (Rousseau 2009: 487). Women are naturally attracted to domestic duties and not to activities that require the use of the mind, as men are. Wollstonecraft affirms "that the character of every man is, in some degree, formed by his profession" (cited by Wollstonecraft 1989: 27). This means that a man can only exist and be recognised by society through his working qualities. We can suppose that if education were not gendered, both would be recognised as equal in the social norms (ibid.: 34).

- (7) The society created the notion of gender to organise people, and it determined the different activities each gender had to fulfil. Men and women have different activities ascribed to them. We will explore a few of them in this dissertation. Land can't be worked by men and women in the same manner. The men work the land, and the women only produce the fruit and result of the land work (Hopkins 2010: 4). For example, the men prepare the corn field, and the women work and transform the corn. Cooking and weaving took place in the domestic area. Rooms with many lights were considered as protective (Bourdieu 1970: 153).

“Donnez à l'homme un métier qui convienne à son sexe, et au jeune homme un métier qui convienne à son âge : toute profession sédentaire et casanière, qui effémine et ramollit le corps, ne lui plaît ni le lui convient. Il faut de l'art pour porter à ce métier (tailleur) de femme le sexe pour lequel il n'est pas fait. L'aiguille et l'épée ne sauraient être maniées par les mêmes mains” (cited by Rousseau 2009: 246).

This means that the activities that society gives to people should respect the sex and age of the individuals. Women are involved in activities that don't require physical strength. Men should not practice feminine activities because they can change their bodies. A needle can't be used in the same manner by both genders. A needle needs to be manipulated by delicate and patient hands—the hands of a woman. Embroidery and needlework were considered female activities. It was highly respected and considered “one of women's richest contribution to culture” (cited by Pollock 1981: 58). Women were not considered to have any work. Their task in embroidery was seen as a leisure activity. It was done by women who had finished their tasks at home so that they wouldn't be tempted to try male activities. Mary Lamb says that “it absorbs women's time and energy and even in monetary terms its contribution to the domestic economy is negligible” (cited by Pollock 1981: 63).

The activities of women are qualified as not creative. They are not able to bring something new to the community. Their domestic duties are not seen as creative tasks but as obligations to society (ibid.: 8). Women have so many domestic duties that they don't have time to pursue others. For example, they have no time to make art, such as male artists (ibid.: 16). Women are excluded from the

cultural sphere because they need to have babies. Men are the ones who can become artists and who create art. Women can't be recognised as artists because, unlike men, they don't have the same understanding of what art is. They are the other who can't understand the male world. They can't enter into their sphere (Pollock 2003: 30). Men and women might be interested in different things, but "women's art is just as good as men's art" (cited by Pollock 2003: 37). In art, the representation can be understood in two different manners. It could describe an object or a subject that is present or symbolise something that is not present (Evans 2013: 192f.). For example, if we have a painting of a wet street and a shining sun in the sky, we can see the representation of the street at that precise moment. The fact that the street is wet symbolises the few moments before it was raining. Moreover, the tattoos of certain civilisations were seen as masterpieces and were realised predominantly by women (Lévi-Strauss 1958: 276). These tattoos or paintings were important because they marked the person's status (ibid.: 283) and could replace the mask or a headdress of gods or ancestors (ibid.: 288).

Women use their minds and observation to bring the men to do and realise the things they cannot do alone because they are missing strength (Rousseau 2009: 520). A woman's body is more delicate than the one from the man. She can't realise the same activities as they do. However, they are endowed with a more developed mind for certain activities (de Pisan 1986: 92). Women have good intuition. They can predict the future. For example, in mythology, a woman predicted the murder of Hector of Troy (ibid.: 165). She should be beautiful to provoke pleasure in men. Men will overlook a woman with a strength of mind with indifference (Wollstonecraft 1989: 54). Women who had studied were feared by men. They thought that they could corrupt the morale of the society that the men created, so that they could discover the strategy of the men and place them as inferior to punish them (de Pisan 1986: 178).

Women are seen as a threat to the political and social order of society. Hegel considers Antigone's character as a woman who destabilised the state in defending the family's interests (Brooke 2019: 134). Men need to have a strong body. If their body were not well built, they wouldn't have the capacity to speak

and become rulers or administrators (Jowett 1885: 107f.). Men are more used to activities with decision-making processes and economy (Connell 2013: 19). Women can't govern a state or a city because the social norms don't prescribe this activity to them, as their qualities are perceived as being tender, nice, fearful, and weak (Montesquieu 1973: 223). The Salic law considered that women were prohibited from participating in the decision-making processes or ruling duties. However, if the king died, the woman could be involved in a regency (ruling as long as her child was old enough to rule) or be a queen (she could rule in her own rights) (de Beauvoir 1976: 136). Only if a man is missing can a woman take his role in the decision-making processes and rulership (Brooke 2019: 126). Women were excluded from the political world. They could not or rarely access the throne or decision-making processes. This situation changed in the 17th century. The creation of the salon enabled women of high rank to participate in debates and be introduced to themes that were reserved for men, such as science, literature, and so on (Bordo 2015: 146). During the French Revolution, women participated in rivalries but couldn't play a role in the political sphere. They helped the community in the battle, but all the merit was given to the men as if the women didn't participate (Armogathe 1977: 26). Nowadays, the rate of women participants in politics is increasing (Lips 2014: 98). However, women who get the chance to achieve leadership positions are viewed as unusual, breaking the rules of being women (ibid.: 100). Because politics are male-dominated, women that arrive there are no longer seen as feminine but as mannish. They receive the qualities of men. It is not respecting social norms. That is why society can't see them as women or men (ibid.: 103). A lesbian needs to differentiate herself from the category of women to prove her resistance to the social norms in which they need to be confined (Armogathe 1977: 44).

- (8) Inequality appeared between humans and formed the social structures. They need to show who they are to society to be recognised as a member (Rousseau 1985: 52). Discrimination often goes toward women. They are excluded from activities, places, behaviours, and so on (Lips 2014: 29). Nature has made women inferior to men in strength (Wollstonecraft 1989: 7). Inequality is the result of privileges and oppression of a society (Schell 2012: 197). For Mitchell,

four structures were oppressing women: production, reproduction, socialisation, and sexuality (Connell 2013: 108). A woman endures matrimony and the bad treatment of the social norms towards her gender. She can't evolve in society as men do, but she will do her duties and respect people, even if she doesn't want to (Rischmüller 1991: 12). Kant affirms that women were treated as a person, but they were seen as a thing that can be possessed (Schell 2012: 195). Children and women are the victims of society. This enables men to appear stronger and essential (Rischmüller 1991: 33). Simone de Beauvoir notes that the activities that men realise are seen as important for society. Whereas, female activities are seen as specific to their gender (Bordo 2015: 153).

During the Middle Ages, women had to share the hard life of the knights. They had to behave like the men. This was called *virago* (de Beauvoir 1976: 128). For example, one female knight was famous: Joan d'Arc. Society and the Church saw her deeds and manners with a bad eye because she behaved like a man and did not follow the rules. During the 16th century, the law prohibited women from participating in male activities (ibid.: 132). Technology and industry permit women to enter into paid work. Men's labour force was insufficient for the industry, so that women could obtain an equal chance in job opportunities (ibid.: 154). Technology diminishes the inequalities in the strength of activities. Men and women can pursue the same jobs because machines do the hard work (ibid.: 78). Women have gained more privileges. However, after World War II, society had an ambiguous feeling about female work. Indeed, they didn't know if they should celebrate the work that women realised at that time or condemn the women who were involved in male roles (Bordo 2015: 171). People who don't respect their gender activities are seen as ugly. The perfection of a person lies in the fact that a woman practices female activities and a man male ones (Schell 2012: 159).

Nowadays, women have more access to jobs that are seen as male-restricted. There is a feminisation of employment. However, gender inequalities remain, such as salary (Evans 2013: 60). Men saw women as a threat and competition in the working area. Sometimes, they even did a better job than the men. They were paid less than men as a strategy, so they kept male dominance in mind (de

Beauvoir 1976: 158). Women are also less paid than men because they are not able to practice it as well as men do and because they will be more often absent from the job to have a family and care for the children (Lips 2014: 82). A woman needs to choose between having a family or having a career (Armogathe 1977: 53). Men and women will be equal when the women won't be requested that much for their domestic duties. This means that if they are less involved in the domestic area, they can acquire better jobs than men (de Beauvoir 1976: 80).

Two concepts can define the difficulties a woman has at work. On the one hand, there is the glass ceiling. This means that if a woman wants to pass certain levels, she will be stopped by an invisible barrier (Lips 2014: 87). On the other hand, there is the glass elevator. If a chief has to choose between a man and a woman for leadership, he will choose the man. They have more facilities to achieve higher places (ibid.: 88). Women in a job can achieve the highest levels of it if the activity is mainly occupied by women (ibid.: 81). Men are seen as the breadwinners. Indeed, they were working hard to earn money for the family. This money will be used mainly for food that women will prepare (Evans 2013: 199). If men have a family, they will earn more money. On the contrary, if women have children, they earn less money. Fatherhood is privileged in society (Lips 2014: 89). Female-headed households are more vulnerable to poverty. They earned less money and could not be self-sufficient. The care of children from the society was not good enough to permit mothers to work while letting their children to a special structure (Evans 2013: 64). The poverty of women is not only the consequence of a lack of income but also different economic and social problems such as the lack of access to credit, the vulnerability to violence, the overwork, and so on (ibid.: 67). Since then, the 70's gender-based violence has been recognised, identified, and punished. The violence done to women was not only occurring in the public sphere but also in the domestic one (ibid.: 100). Men are involved in activities that require strength. Women are practicing some duties that repair violence, such as lawyers, for example (Connell 2013: 21).

- (9) A further theme will be matrimony. Marriage is ambiguous. The women lose privileges, but men and women gain society's respect through it (Rischmüller 1991: 106). Marriage signifies the end of the improvement of the mind for

women. Indeed, their maturity and learning process end once they marry (Wollstonecraft 1787: 93). Men are different from animals because they can continuously improve. Animals will come to maturation and won't be able to change anymore. Men will take more time for maturation, but once they reach this process, they will be able to continue evolving not physically but psychologically (Rousseau 1985: 28). Women can't marry too young and procreate because the child will be ill and small, and the mother can die during the childbirth (Jowett 1885: 238). Matrimony takes women out of their families because they have to realise their domestic duties. It is not their education or their knowledge that takes them away (Wollstonecraft 1989: 178). Men keep all the responsibilities for themselves so that women can enjoy an easier life. They would like their condition and accept the roles of mother and housewife. Balzac said that a married woman is a slave that men should know how to put her on the throne (*"la femme mariée est une esclave qu'il faut savoir mettre sur un trône"*) (de Beauvoir 1976: 151).

- (10) The last theme will deal with the concept of dependence. With the ability of reproduction, a woman is dependent economically and politically on the father and then on her husband (Connell 2013: 20). The more a woman is dependent on someone, the more she is honoured socially (Armogathe 1977: 23). Since birth, some people are made to dominate and others to be subordinate. For Aristotle, men are created by nature to rule and women to obey (Jowett 1885: 9). If a man gives too much freedom to women, they will abuse it. They live in the excess of everything they could gain from the men (Rousseau 2009: 490). It is through bad habits and negative behaviours, such as bad manners, that men have toward women that make them feel superior (de Beauvoir 1976: 256). Poulain de la Barre affirms that men are everywhere dominant and favour their gender. Women only accept this dependence on men by custom (ibid.: 145). Patriarchy is a system that is turned toward male privileges and oppresses women to dominate them (Saraswati 2018: 23). Women can participate in the patriarchal system consciously or unconsciously. Indeed, they contribute to the continuity of the system in accepting the condition that is dictated by it (ibid.: 24). Patriarchy could exist without men because the system is based on certain social relationships and ideas and not on persons (ibid.: 26). For example, in a

conversation we can see a power relationship. If both genders are involved in a conversation, the man tends to talk and the woman to listen. The man is active and dominates the conversation. Women are passive and subordinate (Lips 2014: 48). Women are dependent on men. They are all, in a way, friends of captivity. They help each other to support this situation. For Armogathe, the liberator will come not from the feminine emancipation but from the men (Armogathe 1977: 54). Women are restricted to the domestic area. They can't come together and unite their force and voices to form a resistance to male domination (de Beauvoir 1976: 148). Being under the power of someone means to live to a certain degree in terror and pain (Burke 1833: 67). Both genders are interdependent. Men are stronger, but the strongest "should be the master in appearance and be dependent on the weakest" (cited by Wollstonecraft 1989: 88). Men give protection to women in exchange for pleasure. There is a pact between men and women. If women accept male dominance and support them emotionally, men will protect them and support them for subsistence (Lips 2014: 35; Rousseau 2009: 482).

3.6) Gender roles and activities within the Maya civilisation

The last part will deal with gender roles and activities. This part will be divided into three sub-parts: epigraphy and titles, iconography as visual messages, and activity and space related to households and burial contexts.

3.6.1) *Epigraphy/ titles*

The epigraphy and the titles are recorded on different media, enabling us to understand the social hierarchisation and organisation of the city and, in a broader sense, the Maya civilisation. We will focus on (1) name and title generalities, (2) name formation, (3) the prefix *ix* and *aj*, (4) the most used titles by the elite, (5) other types of titles, and (6) undeciphered titles in relation to women.

- (1) Names can give back a person's personality and function in society. It reflects the living being in the culture (Colas 2004: 2). Having a name means to be alive, to live, to have a soul (ibid.: 25). After Miller, an appellative is a name that qualifies

categories of things, whereas a proper name qualifies only one kind of thing which could have been collective or individual (ibid.: 6). A name could be composed of additional terms called *epiclesis*. *Epiclesis* could indicate an anthroponym, toponym, profession, physical, and other kind of properties. For example, in the Roman Empire dynasty, we had Augustus the Strong (ibid.: 8). The study of names by the Maya is something that appeared relatively late in time. Scholars had long in mind that the glyphs were impersonal (ibid.: 16). Of the 30 Maya languages, the *Ch'ol* language is the one that is the most similar to the Classic Maya writing. We can deduce that *Ch'ol* was a *lingua franca* in pre-Hispanic times, such as English is today (ibid.: 20). Two words can be used to designate the name: *bih* and *kw'aba* (ibid.: 23). Names in iconography are depicted near the figure or in the case of captives, the name was put on their body (ibid.: 38). The glyphic record may mention a person who is not present in the iconography (ibid.: 40). The term *ubaah* (his image) is followed by a name indication (ibid.: 41).

Titles were associated with social rank, lineage, or place of origin (Banach 2017: 50). Secondary elite or non-regal nobles might also appear in the narrative records. Their identity was expressed through their rank or activities they had at the court (Jackson 2001: 217). According to Jackson, the titles spread during the Classic period, from 435 AD to 881 AD (Biro 2013: 91).

(2) Names could have been composed by:

- (a) Name of animals. Here, we can see that names could mix two animal names, an animal name with a name of a god, an object, and an animal name, or an adjective and an animal name. For example, we can identify Kan Bahlam as: Snake-like Jaguar, Itzamnaaj Bahlam: Itzamnaaj Jaguar, Tuun Chapat: Stone-like Centipede, and Chak Sutz': Big Bat (Colas 2004: 68f.).
- (b) Name of gods. Names of gods can be composed of animal names, two gods' names, or an object. For example, we have the evidence of Mo' Chaak: Macaw-like Rain God, Itzamnaaj K'awiil, and Tz'ib Chaak: Writing-like Rain God (Colas 2004: 73f.).
- (c) Name of objects. Object names can be mixed with animal names, god names, and adjectives. For example, we can have Ahk Nikte: Turtle-like Flower,

K'inich Lakamtuun: Sungod-like Stela, and Chak Lakamtuun: Red-like Big Stone (Colas 2004: 77f.).

- (d) Name of profession. For example, we can cite Bahlam Ajaw: Jaguar-like Noble (Colas 2004: 80).
- (e) Name of possessive. For example, we can take Upakal K'inich: Shield of Sun God (Colas 2004: 89) or K'ak' Ujol K'inich: Fire Head of the Sun God (ibid.: 98).
- (f) Name of anti-passive. For example, K'ak' Tiliw Chan Chaak means Fire Inflamed Sky Rain God (Colas 2004: 104).
- (g) Name of passive and affective. For example, Sih Yaj K'awiil means K'awiil is given (Colas 2004: 138).

The use of name types varied geographically. For example, animal names were more commonly used in the West of the Lowlands, and the gods' names were more common in the East (Colas 2004: 321f.). Through the accession, the name of the ruler changed. Most of the time, the rulers added epicleris to their birth names, or they took the names of their grandparents (ibid.: 293f.). When a ruler had the epicleris *K'inich* in his name, it symbolised his identity association with the sun, royal status, and accession as a king (Halperin 2014: 132). The sun is used as a metaphor for the power and authority of the ruler (Colas 2003: 269). Rulership and sacredness in a name can be transmitted through the prefix *K'inich*. The name holder shares the attributes of the Sun God. *K'inich*, as a suffix, designates the aspects of the Sun God. They cannot be separated from the name (ibid.: 271). The ruler cannot embody the Sun God as a whole; he can only represent some aspects of him (ibid.: 274). *K'inich*, as a prefix, can be omitted if the narrative occurs in a foreign sphere of action, unlike the ruler's (ibid.: 277). The age of a ruler was used as an epicleris. For example, *Ho K'atun Ajaw* means the Five K'atun Lord (Colas 2004: 156). Names are changed once the person dies (ibid.: 279). These names and epicleris emphasise their new role as dead beings (ibid.: 285). The name of women can give back their origin (Ardren 2002: 117). 81 women's names of 243 have an epicleris with their city of origin (Colas 2004: 187).

(3) We will now focus on two prefixes: *aj* and *ix*. The prefix *aj* can mean masculinity, the subject or agent in a phrase, or the city of origin (ibid.: 199). For example, *Aj Chiik Nahb* means he from Chiik Nahb (ibid.: 201). *Aj* can be used by men and women if it does not have the meaning of masculinity (Jackson 2001: 222; Banach 2017: 64). For example, *Aj K'uhun* means the bookkeeper. *Ix Aj K'uhun* means that a woman was a bookkeeper (Colas 2004: 208). In burials, we can identify narratives of historic persons. These narratives recorded women's titles that men usually held (Ardren 2002: 125). Every title or adjective can be used by both genders. It can explicitly be used by women through the female prefix addition (Colas 2004: 173).

In the '90s, Stuart and Wagner analysed the prefix 'ix no longer as a mother but as a female gender indicator (ibid.: 168f.). The female gender indicator is not always present in the glyphic records. Hewitt deduced that women rulers had to take the role and attributes of men. They were no longer seen as feminine beings but as masculine ones (ibid.: 171). Classic Maya grammar system was theme-oriented (Banach 2017: 141). This means that the agent's gender is not essential; the action prevails. The 3rd person is not a marker of gender or of number (singular, plural) (ibid.: 138).

(4) In the epigraphic record, many titles appeared. We will have a look at the most used and recorded ones.

- *K'uhul* qualifies a person as sacred. It was used by the highest rank of the elite category (Colas 2004: 240; Martin 2020: 71). The emblem glyph is different from one primary centre to another. However, the sacred glyph *K'uh* or *K'uhul* remains the same (Colas 2004: 228). The sacred glyph of the emblem glyphs has validity only in their sphere of action. They lose their sacred status if they are mentioned elsewhere (ibid.: 244). *K'uhul* in the emblem glyph by foreigners can be omitted (Colas 2003: 277). It can happen that women had two emblem glyphs: one of their current cities and one of their cities of origin (Colas 2004: 246). *K'uhul Ixik* was carried by 40 women (Banach 2017: 51). Not only did ruling women or regents have the title, but also wives or mothers with a high prestige level (ibid.: 56).

- *Ajaw* means the one who shouts (Zalaquett 2015: 44), the one who proclaims (Martin 2020: 69), or a person that speaks in high voice (Banach 2017: 50). *Ajaw* qualified the ruler, but also since the 8th century the noble class (Tremain 2017: 37; Martin 2020: 70). During the Classic period, approximately 70 women carried the title *Ajaw*, with an increase at the 7th-8th century (Banach 2017: 51).
- *Kaloomte'* was a prestigious status and not an office (Martin 2020: 79). Only prominent rulers could carry it (Rivera 2020: 1). *Kaloomte'* means something in relation to warfare or overlord (Colas 2004: 159; Nichols 2012: 326; Tremain 2017: 37; Reese-Taylor et al. 2009: 58). *Kaloomte'* can mean the one who is destructing the spear. This title emerged during the 5th century and had an affiliation with Teotihuacan (Rivera 2020: 1). The first appearance until today comes from Naachtun Altar 8 (around 357 AD) (Nondédéo et al. 2023: 20). The *Kaloomte'* title spread mainly after 700 AD. Before, only Tikal, Dzibanché, Calakmul, Coba, and Copan rulers carried it (Martin 2020: 81). During the Late Classic, the title *Ix Kaloomte'* was more accessible to women. Indeed, from 682 AD to 709 AD, five women were recorded as carrying this title (Reese-Taylor et al. 2009: 58). For example, Lady K'awiil Ek' of Coba, Ix Yok'in of Tikal, Ix Wak Chan Ajaw of Naranjo, Ix Ik'Skull of Yaxchilan, and Ix K'abal Xook of Yaxchilan (Rivera 2020: 2).
- *Aj K'uhun* can mean he who gives books (Lacadena), he of the holy book (Grube and Houston) (Jackson 2001: 221; Tremain 2017: 41), the administrator of the books (Colas 2004: 30), or he of the holy paper (Halperin 2014: 112). Few women carried the title of *Aj K'uhun*. Their task was to register historical events, record tribute payments, write down the knowledge of divination, medicinal herbs, and sicknesses, and take care of books (Gonzalez Cruz 2011: 235). *Aj K'uhun* was associated with the world of scribes and artists (Martin 2020: 89). For Stuart, the *Aj Tz'ib* is the scribe and drawer (Tate 1992: 46). *Itz'at* means the artist, and *Aj Pasan* means the one who renders it beautiful (Colas 2004: 28). Few women were scribes. They were depicted with a headdress made of brushes and chisels. We can cite Lady

Mo' Chak Suutz' of Yaxchilan, Lady ? Chan of Tikal, and Lady Mab Luum of Kalumkin (Banach 2017: 65).

- *Sajal* is the one who fears (Martin 2020: 86). He had the task of accompanying the rulers in war and administrating the secondary centres (Zender 2023: 22). He could also appear in rituals (Banach 2017: 57). We can ascribe him as a regional governor and a war captain (Lacadena) (Tremain 2017: 40). The *Sajal* could have been taken prisoner (Martin 2020: 87). Few women carried the title *Ix Sajal*, such as Lady Chak Hix of Bonampak, Lady Chak Joloom of Yaxchilan, Lady K'an Balun of Pomona, and Lady Men Nik of Palenque (Banach 2017: 58).
 - *Bacab* means the first on earth (Colas 2004: 30). It can be linked to the control over the resources and the land (Martin 2020: 85; Banach 2017: 57). *Bacab* can be used by men and women (Colas 2004: 143) and it was appearing almost only after the emblem glyph (ibid.: 147).
 - The term *ch'ok* was mostly found on ceramics (ibid.: 150). *Ch'ok* qualifies the young nobleman, the prince (ibid.: 30), a sprout (Martin 2020: 75), a youth, and an immature person (Tremain 2017: 43; Houston 2018: 45).
- (5) Other titles can be found in the epigraphic record. However, they are scarcely used; this dissertation will briefly enumerate them. *Kelem* means the first of the family (Colas 2004: 149). *Aj Sul* was a title used for subordinated lords (Chase et al. 1991: 7). *Pitzil* means the ballplayer (Colas 2004: 149). *Ch'ahoom* means the one who produces smoke. *Tiloom* means the one who puts out the fire (Colas 2004: 149). *Ti'huun* means the prophet. Only a small number of men were carrying this title. Until today, there is no evidence of women with this title (Martin 2020: 91). *Baahz'am* were a kind of functionaries who were responsible for royal audiences and receptions (ibid.: 94). *Ch'akol* was a title carried by high-ranked court officers. Their task was associated with the decapitation and the skull rack (Boot 2005: 431). Few titles could emerge locally. For example, the *Wuk Tzuk* title was associated with the seven provinces

from the Naranjo-Yaxha region (Dacus 2005: 43). This title was carried by queens under Naranjo's dependency and alliance (ibid.: 46).

- (6) Two undeciphered titles are used in relation to women. On the one hand, there is the vase title. The vase title is still enigmatic. However, we can deduce that it has a connection with female names (Colas 2004: 189). Goddess O was often represented with an inverted vase. It could have a meaning as the one who has the ability to reproduce and to give birth (ibid.: 196). It also depicted a married person (Tuszynska 2011: 1).

On the other hand, there is the GI title. The GI title is still not deciphered. However, we can deduce its association with the women's names (ibid.: 3). For example, it appeared frequently when the patrilineal line of succession was broken. On Stela 3 of Tikal, a son mentioned his mother, Lady K'inich. The name was not preceded by the gendered prefix *ix* but by the GI title (ibid.: 3).

3.6.2) *Iconography as visual messages*

The next part deals with iconography as a means of transmitting visual messages. The analysis will be done through different points: (1) the different materiality for the iconography, (2) the meaning of poses and gestures, (3) the relationship between text and image, (4) ornaments and beautification, (5) textiles seen on the visual media, and (6) ceremonies.

- (1) The different materiality for the iconography was composed of ceramics, figurines, and stone monuments. The ceramic has two uses: one for daily life and another for special occasions such as ceremonies or gift exchange (Sonderegner 2003: 48). Maya art enables us to have an insight into their daily life and their beliefs (Patrois 2008: 16). For Hall, "a representation is the production of meaning of the concepts in our minds through language- whether that language be spoken or visual" (cited by Tremain 2017: 141). The narrative on the ceramics could be unique. This means that one important scene is represented and fixed in time. The viewer, from any angle, will see it. There could also be multiple narratives. This means that more

than one scene is depicted. To see all the scenes, the viewer has to turn around the object (Bonnafox 2008: 119f.). Artefacts used to perform special activities needed to be produced intentionally by the actors (Loughmiller-Newman 2013: 167). The more artefacts were required for special events, the more widespread and complex the social organisation was.

Ceramics were classified into groups following their similarities (Aimers 2013: 12). Dunnell affirms that classifications “are imposed constructs that function to order data so that explanation is possible” (cited by Aimers 2013: 18). Ceramics were regrouped through their types of decoration and colours (Spinden 1975: 134). For example, we can identify a group of red or yellow ceramics, a group of red ceramics with black and white motives, and a group of polychrome ceramics (*ibid.*: 138). Five aesthetic styles for ceramics exist. The polychrome tradition arose in the region of Tikal. Geometrical motifs, circular lines, and scrolls were the predominant decorative features (Bonnafox 2008: 126). The painting on stucco could have been used to redecorate the ceramics. Red and blue are the dominant colours used (*ibid.*: 128). The reserved decoration depicted the aquatic world (*ibid.*: 130). Dark surface decoration permitted the representation of all kinds of animals, and the bright surface depicted the gods (*ibid.*: 131f.). The jaguar's depiction of ceramics symbolised death, the underworld, and funerals (*ibid.*: 140). Birds were also animals that were often represented in Maya art. These birds were pertaining to the heron, frigate, turkey, vulture, eagle, owl, quetzal, and macaw categories (Spinden 1975: 78).

The different artists involved in a ceramic production or stonework can be identified through their signatures (Tremain 2017: 45). For artists, tribute could be to realise an artwork for other sites (*ibid.*: 46). Artists were displaced and imported their tradition with them (Aimers 2013: 89). On some unfinished works, painters left blank spaces for the scribes. Was the painter illiterate? Was the painting made before the writing by the same person? (Tremain 2017: 47). The affiliation could be deduced from the ceramic production. Some cities can share the product, the practice, and the ideas (Aimers 2013: 38). The technological style of the ceramics depends on the raw material, the diet of the people, the food preparation type, and the social interactions (*ibid.*: 29). Similar patterns on the ceramics could have been

copied (ibid.: 86). During the Postclassic, we can see a decrease of ceramic styles. There was a transition to a more homogenous pan-Maya style (Loughmiller-Newman 2013: 49).

Dwarves and fat men were two figures who incarnated the contradiction of social norms (Halperin 2014: 96). They were tricksters and ritual clowns who entertained people. They appeared in a domestic sphere (Halperin 2014: 100f.; Tremain 2017: 49). Monkeys are also the “embodiment of social deviance and creativity” (cited by Halperin 2014: 127). The monkey was the patron of the scribes (Tremain 2017: 54; Chase et al. 1992: 178). On ceramics, glyphs were placed along the rim. They indicated the owner and the content. This permitted to give agency to the object (Loughmiller-Newman 2013: 305). Ceramics can be incised. This method consists of carving motifs with a knife or chisel (Sondereguer 2003: 34). The most common scene depicted in the royal court was the tribute presentation (Tremain 2017: 193).

Figurines were recovered from both elite and commoner households. (Halperin 2014: 145). The production of figurines could have been done with domestic trash. The elite did not control the production. We can deduce that this could be the reason for the humour and entertainment task of the figurines (ibid.: 177f.). Figurines were the expression of daily life and the representation of social stereotypes (Gallegos Gomora 2012: 95). Figurines were not individual portraits of people. They represented the events and the social classes (Halperin 2014: 46). They could depict women involved in political activities (ibid.: 54). Women were never depicted with trauma, genetic malformation, or diseases. It was essential to show healthy women to evoke good fortunes for reproduction (Gallegos Gomora 2012: 96). The use of figurines was not geographically homogenous. In Belize, only the elite had figurines, while in the Southern Lowlands, they were found in elite and commoner contexts. A small amount was found in the Northern Lowlands (Halperin 2014: 149).

Public places in the city were used to erect stone monuments. Everybody can see them because they are located where people gather together for their activities (Clancy 1999: 23). The location and the type of media used were employed differently depending on the kind of activity conveyed by the epigraphy and

iconography (Marcus 1987: 63). 1/3 of the 76 figures present on the Chik Nahb murals in Calakmul were women. Through this mural, we can see the elite's activities, clothing, adornment, and hairstyle (Carrasco Vargas 2012: 29). The choice of media used to record narratives depends on the city's traditions. For example, the stela was the predominant medium used in Calakmul. In contrast, in Palenque, the panels were preferred (Marcus 1987: 59). Art made of relief can take a variety of typology such as the lintels, panels, stelae, stone mosaics, the rings of the ballgame, and monumental masks (Sonderegger 2003: 34f.). Art was commissioned by the ruler (Chase et al. 1992: 227). Rulers were predominantly men. The artists who executed the artworks were also mostly men, with a few exceptions (Figure 43). We need to be careful with the depiction of women because they can have a biased view of men in the role and activities of women (Ardren 2002: 205). The social order of a



Figure 43: ceramic rollout K6020 representing a woman as a scribe (mayavase.com)

society can be deduced and analysed through the inclusion and exclusion of social categories in some activities (Loughmiller-Newman 2013: 152). Art was expressed through different artistic styles. It was culturally and geographically dependent. Some cities, such as Coba, Oxkintok, and Edzna, had artists who came from the same artistic school. Similarities can be found (Patrois 2008: 113). Some buildings' façades could have been decorated with friezes, high-relief, and geometric mosaics (Spinden 1975: 115). In the stone monuments, two types of time measurement were used. On the one hand, linear time was the expression of events with a beginning and an end; they were unique and irreversible. On the other hand, cyclical time was expressed through the repetition of the same events (Voss 2015: 39). For example, the calendrical system was cyclical. The combination of days and months was repeated every 52 years (ibid.: 42). The lineal time for the Mayans started in 3114 BC, with the world's creation (ibid.: 43).

The composition of a stela was a person represented in a full-frontal pose, organised symmetrically in the field. Usually, the person depicted was a ruler that could be identified by his clothing, adornments, and gestures (Clancy 1999: 20). Stelae could have been carved on the front, on the front and back, on the front and at the sides, or on the four sides (Patrois 2008: 65). Lintels were carved on one side and very

few were carved on the sides (ibid.: 66). Altars were carved on the front and sometimes also at the sides (ibid.: 66). A given field is asymmetrically organised, when more than one figure is present, and if they are depicted in a dynamic pose (Clancy 1999: 21). Figures in motion had shoulders and torso depicted frontally, the head and the feet seen in profile, and the hips and legs were in $\frac{3}{4}$ view (ibid.: 29). Static figures are represented with their face, legs, and feet in profile, and the torso in a $\frac{3}{4}$ view (ibid.: 30).

- (2) The poses of people in the scenes enable us to retrace the temporal chronology (Proskouriakoff 1950: 18). For example, the Classic period postures were unnatural and static (ibid.: 19), whereas in the Postclassic period, the poses were full of motion (ibid.: 22). *Chum* means to sit and *wa'* means to stand upright (Carter et al. 2020: 166). If a person puts their right hand on their left shoulder or makes the hand-at-mouth gesture, it could be interpreted as homage (Robertson et al. 1972: 44 and 20). Women with arms on the left shoulder could mean recognition or surrender (ibid.: 58). When people were looking upwards, predominantly the captives, they were supplicating the prominent figure of the scene (ibid.: 310).
- (3) Images were linked to the glyphic records (Chinchilla Mazariegos 2017: 9). Writing and painting were seen as two different activities that were interconnected (ibid.: 28). In narratives, there are many glyphs related to time. This permitted them to classify the people and events (Voss 2015: 39). Different methods can be used to depict a narrative. It can be simultaneous (different moments of an event are presented in one scene), mono-scenic (different scenes represent one special moment in an event), and cyclic (different scenes depict the same figures) (Chinchilla Mazariegos 2017: 17). In a scene, glyphs could be placed differently to express different things. For example, dispersed glyphs were linked to the worn ornaments. Glyphs near figures gave information about the names and the titles. Complete texts were put atop or at the bottom of the scenes (Patrois 2008: 70). Basal images are small depictions at the bottom of the main image. They can, for example, represent the captives (Clancy 1999: 37f.). Supernal images are located atop the central figure. They were permitted to add attributes and power to the prominent individual depicted (ibid.: 40). The text not only gives back in words

what can be visually seen in the imagery. They gave additional information about the scene that could not have been depicted (Clancy) (Orellana 2012: 186). Josserand adds that “sometimes the text describes another part of the ritual and not the one shown in the image” (ibid.: 186).

- (4) The next category deals with ornaments and the beautification of people. Ornaments were used to identify the social rank and gender, and for the beautification of the wearer (Vidal Lorenzo et al. 2016: 233). They could have been exchanged as a gift or as a tribute. It could also pass from one generation to another and become an heirloom (Carter et al. 2020: 119). Here we will analyse the ornaments proceeding from the head to the feet. Headdresses could hide symbols of the name, profession, and toponym (Fash 2011: 154). Women who were depicted with hats had a mercantile task (Halperin 2014: 88). Men with hats signify that they are travellers, hunters, or doing trade (ibid.: 90). If a group was depicted with the same type of headdress, it could mean that they share the same status, there is a homogeneity (ibid.: 66). In iconography if a person had a smaller headdress than another one, it could be due to his lesser importance in power and status (ibid.: 65). *Tuupaj* means the ear ornament. They pierce the earlobe to be able to pass the earflare (Carter et al. 2020: 88). The ruling elite uses ear ornaments to hear the ancestors and the community (ibid.: 101). Earplugs are used by both genders (Perez Lopez 2013: 91; Tremain 2017: 209f.). Nose ornaments were widespread among the Maya. However, the depiction decreased once Teotihuacan collapsed (Carter et al. 2020: 96). They were connected to symbols of warfare. The masculine gender was exclusively represented by them (Perez Lopez 2013: 100). The Nose ornament can be part of the person, or it can be factual and taken away (Kettunen 2006: 273). Nose ornaments could have been made of perishable material. These would have left no traces in the archaeological record (ibid.: 110). The design for the nasal motifs can come from nature or man-made artifacts (ibid.: 103). Motives of flowers are abundant in Maya art. They could be depictions of real flowers or be representations of abstract flowers (ibid.: 103). They would appear in the archaeological record if they were made of precious stones. However, the nose, made of cartilaginous tissues, will fade away. Therefore, the ornament can be found in a location other than the nasal area, such as inside the skull or on the breast (ibid.:

110). Noseplugs appeared more on ceramics than on stone monuments (*ibid.*: 111). If they appear in monumental art, it is to be seen by everybody (*ibid.*: 187). The more a scene depicts supernatural beings, the more nose ornaments will be found (*ibid.*: 176). Prokouriakoff identified nine different types of nose ornaments such as nose bead below the nose, tubular noseplug, ornate noseplug or abbreviated mask, typical Late Classic tassel, aberrant prominent form, late aberrant form, Toltec nose bead, Toltec ornament worn under the nose, and aberrant nose ornament (*ibid.*: 112). “Tubular motifs are divided between motifs that emanate from the nasal area and motifs that are placed horizontally through or below the nose” (cited by Kettunen 2006: 130).

Neck ornaments, such as necklaces with pendants or collars, were genderless. They served to beautify people, no matter which gender they were pertaining to (Carter et al. 2020: 118; Tremain 2017: 209f.). Necklaces could have been composed of leather, fibre, or paper (Carter et al. 2020: 105). Most of the time, pendants were suspended. They could depict iconographic motifs, glyphic texts, geometric motifs, woven mats, trophy heads, or anthropomorphic and zoomorphic figures (*ibid.*: 108). Armbands were more commonly worn by women, whereas anklets were worn exclusively by men (Perez Lopez 2013: 92). Symbolically, the belt was seen as the one that binds the soul to the body (Carter et al. 2020: 133). The type and design of the belt vary depending on the activity. They were not linked to the wearer's identity (*ibid.*: 134). Belts were used by the ruler, the elite, and even the captives (*ibid.*: 123). Men wore belts that were more elaborate than the ones of the women (Perez Lopez 2013: 96). Sandals could have been bound, woven, or made of animal heads or paws (Carter et al. 2020: 141f.). Sandals were not gender specific. Both could wear them (*ibid.*: 149). Body painting, tattoos, and scarification gave back information about status and gender (*ibid.*: 32). Body paint can be understood as a substitute for royal adornments (Nehammer Knub et al. 2014: 81). It was used by both genders (Tremain 2017: 215). Semi-circled body paint covered the shoulders, the neck, and parts of the face (Nehammer Knub et al. 2014: 82). This type of body painting was reserved for the elite, scribes, and court intendants (*ibid.*: 83). Women performing body painting wanted to show to other people their power and prestige (Carter et al. 2020: 33f.).

- (5) The next point deals with the textiles seen in the visual media. Clothes permit to organise and hierarchise society (Gallegos Gomora 2015: 38). Indeed, every class or social status will be wearing different kinds of clothes (Romero 2016: 42). Clothes are a visual distinction (Martin 2020: 321). The social status can be interpreted through the production of dress. The more a dress took time and used special materials, the more the status was elevated (Tremain 2017: 93; Carter et al. 2020: 155). Individualism in Maya art was not expressed through the physical depiction of people but through their dress, inscriptions, and ornaments (Spinden 1975: 23). The more heterogeneity of dress, the more the social organisation was “flexible, innovative, and adaptative to their environment” (cited by Tremain 2017: 241). The more a person has a high status, the less movement she will be able to do due to the amount of clothing she will wear (Carter et al. 2020: 27 and 153; Spinden 1975: 158). Clothing also depends on age. The more a person wears a textile, the more advanced the person is in age (Tremain 2017: 116; Gallegos Gomora 2015: 44).

“Die Kleidung ist ein sichtbares Zeichen, das besonders deutlich das Geschlecht betont. In den vorindustrialisierten Kulturen wie der Maya-Kultur der spätklassischen Periode waren die zur Selbstdarstellung verwendeten Mittel auch ein Ausdruck der Identität und dienten der Veranschaulichung der gesellschaftlichen Stellung des Individuums” (cited by Romero 2016: 42f.).

This means that the clothes give back the ideals of society and their beliefs concerning the gender and the identity of a person. As we saw earlier in this dissertation, the body is a blank surface where the culture and society can inscribe their laws. Garments are the social skin, a text that gives identity to the wearer (Ardren 2002: 173; Fettweis 1988: 56; Tremain 2017: 74). Captives were depicted naked as having lost their identity through warfare (Gallegos Gomora 2015: 42).

Textiles are made of perishable material. To understand what kind of clothes were used, we have to look at the art and the depiction of textiles (Kerr 1992: 513). Ceramics are permitted to give more details and variation in the women's garments than on the monuments (ibid.: 513). We can suppose that every type of textile, colour, and motif has a specific terminology (Gallegos Gomora 2015: 41). The

colours used in textiles stand for symbols. For example, black was used for war and weapons, yellow for the yellow maize, red for blood, blue for sacrifices, and green for royalty (Petersen 1976: 72). Some textile pieces had glyphs as motifs. However, not much study was dedicated to that theme (Kerr 1992: 515). Textile pieces could have been used as heirlooms. Most probably, the pieces with names were seen as such (Tremain 2017: 111). Political affairs and the aesthetic were connected to the weaving of textiles (Otzoy 1992: 106). The



Figure 44: rhomboid weave motif (Kerr 1992: 514)

motives and designs of textiles could be geometric or zoomorphic. For example, the diamond was used as a symbol of prestige, respect, and power (ibid.: 105). One woven design is similar to that of the ceramics and could be seen on the monuments of Yaxchilan. It is the rhomboid weave (Figure 44) (Kerr 1992: 514). A woven material could symbolically be represented through a woven mat. In epigraphy, it was expressed by the term *jal* (Stone et al. 2011: 26).

In his report, De Landa qualified the women as “great workers, polite, prudent, generous and sociable” (cited by Ardren 2002: 216). Spinning and weaving were linked metaphorically to childbirth. These activities were reserved for women. Men engaged in feminine activities received female attributes, and women engaged in masculine activities received male attributes (ibid.: 219). It can happen that men were related to the tools used to produce textiles. This showed their involvement in the process. Women were predominantly responsible for the elaboration of textiles (Chase et al. 2008: 133); however, some production stages could have been realised by men or even children (Tremain 2017: 101). Ixchebel Yax, the Sun and Moon Gods' daughter, was the embroidery goddess (Petersen 1976: 72; Chase et al. 2008: 130). The Moon Goddess had many depictions that can be related to many activities. One of them was weaving (Ardren 2002: 209). She might have been called Sak Ixik or Ixchel, meaning the white or weaving woman (Seawright 2011: 1). She was represented kneeling with her loom tied on a tree and on her waist (Petersen 1976: 67). Women were embodying the Moon Goddess or sharing her attributes with the deity when they carried the *Kaloomte'* title, wore the netted skirt, and when they were holding the military paraphernalia (Reese-Taylor et al. 2009: 59). The implements used for the textile production were the spin fibre (*ch'ajna*),

the bone needle (*puts' baak*), and the spindle whorl (*pechech*) (Carter et al. 2020: 9). Three verbs appeared on the glyphic records such as to dress (*pix*), to sew (*chuyi*), and to weave (*puutz'*) (ibid.: 9).

Garments were activity-specific. For example, the ceramics depicted the mythological or courtly life of the elite, whereas the stone monuments represented the ceremonies. Therefore, the textile types and their elaboration will differ (Kerr 1992: 516). Costumes and attributes used for the ceremonies were linked to men (Halperin 2014: 45). In public displays, the elite wore extravagant and luxurious clothes. However, in private, they were dressed in a simple manner to fulfil their tasks (Nehammer Knub et al. 2014: 81). Women were wearing a huipil composed of a large piece of cloth with three openings for the arms and the head (Figure 45) (Vidal Lorenzo et al. 2016: 232). Huipiles were large, and they could transmit symbols. With their motives, they could convey cultural and ethical information to the viewer, whether it was only a depiction or a person wearing it (Otzoy 1992: 104). A

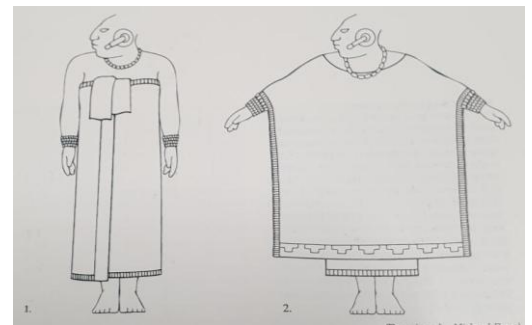


Figure 45: representation of a sarong and a huipil (Kerr 1992 : 516)

sarong is a rectangular piece of cloth wrapped around the woman and tied to the chest. The huipil is a large piece of cloth with open spaces for the head and the arms. They were embroidered and elaborated with motifs (Kerr 1992: 517). Sarongs and huipiles were the most depicted, and we can deduce that they could have been worn predominantly by elite women. Beaded garments were worn by women only in monumental art and by deities in ceramic scenes. The wearing of skirts with exposed breasts was exclusively seen in ceramics and not on stone monuments. Sexuality was taboo (Kerr 1992: 516; Carter et al. 2020: 13). The clothing variety used by men was a loincloth, hipcloth, or an animal-hide kilt, capes, and jackets (Carter et al. 2020: 11; Ardren 2002: 171). Sometimes, for ritual ceremonies, they could wear a full-body suit (Carter et al. 2020: 13). The length of a skirt can't be an indicator of gender. For example, the Stela H of Copan shows a man with a long-netted skirt (Tremain 2017: 95).

The netted skirt was a representation of the fluidity of gender (Moreno n.d.: 5). It was symbolically a costume that encompassed maleness and femaleness. It was the

expression of the third gender. A person qualified as third gender has the attributes of femininity and masculinity (Ardren 2002: 174). Through the netted skirt, men and women could have access to the powers of the other gender (Moreno n.d.: 6). It gave indications of the status and power of the wearer rather than the gender of the person (Hughes 2008: 11). The ruler wearing the netted skirt was gaining prestige and power. He was symbolically equal to the gods (Le Fort 2002: 118). In public monumental art, women predominantly wore netted skirts. Prominent women and mothers of kings were depicted with the netted motif (ibid.: 121). Not only do *ajaw* women wear netted skirts, but also other members of the elite, such as consorts (Banach 2017: 21). The netted motif could represent the earth. The Maya believed that the earth was composed of the back of a crocodile swimming in the primordial sea (Le Fort 2002: 119). The motif could also symbolise the turtle's carapace from where the Maize God was born. This association was linked to the female gender (Ardren 2002: 178). The person wearing this netted skirt probably represented the fertile earth that gives birth to the maize plant and, metaphorically, the plant from which humanity was born (Le Fort 2002: 120). The maize plant was androgynous and simultaneously had male and female organs (Ardren 2002: 181). The gender of the Moon Goddess depends on her activity and on the identity she has while realising it (Seawright 2011: 3). For example, when she is wearing a netted skirt, she represents the connection between the earth, maize, and moon. Her gender is, in this case, androgynous (ibid.: 5). She could also be depicted as a male figure: Xbalanque. He was a Hero Twin who would transform himself into the moon. The X at the beginning of his name could have indicated the female gender prefix *ix* (ibid.: 6). The belief in the Moon and Maize Gods was gender ambiguous. Unsurprisingly, they inspired them to create a third-gender costume (Ardren 2002: 181). People wearing it represented the mixed gender of the Moon and Maize Gods (ibid.: 173). Gods could manipulate symbols of both genders (Rodriguez-Shadow 2007: 110).

- (6) The last category we will examine is ceremonies and rituals. Women had no major role during the ceremonies because they were seen as impure. However, the preparation was made by them (Ardren 2002: 217; Hughes 2008: 2). Women, in creating and making textiles and clothing, were connected to the deities and were present indirectly in the ceremonies realised by men. Indeed, men wore textiles and

were given as offerings to the deities. Their textile production was essential for the ceremony's success (Moreno n.d.: 3). The success of the ceremonies depended on the women. They were responsible for preparing food and textiles necessary for the ceremonies (Manzanilla 2009: 121). They were assistants of the ruler or deities. For example, women helped clothe the Maize God for his dance (Chinchilla Mazariegos 2011: 53). The women in question were wives or consorts of the deity (ibid.: 60). Women engaged in ritual activities wore mostly huipil (Banach 2017: 21). The red colour symbolised the blood, the east, and had a prominent role in ceremonies (Nehammer Knub et al. 2014: 78).

Women appeared in some ritual representations. We will have a look at a few ceremonies and their representation. For the heir's recognition, they are offering paraphernalia with their husband. In bloodletting or astronomical ceremonies, they had primary and secondary roles. During court audiences, they were shown as participants sitting next to the ruler (Ardren 2002: 129). The paraphernalia of rituals was not always present. They appeared abstractly in scenes through the bundle. For example, the stingray spine was used for the bloodletting ritual. Spines were rarely represented. However, we can assume that they were present in the bundles that women carried in preparation for the ritual (Stone et al. 2011: 25). During the ballgame, women were spectators, and they could have put the ball into play (Ardren 2002: 136). Women might not have been the dominant figure in all the ceremonies, but they participated physically at a lesser level, or they participated indirectly through their elaboration of objects, for example. They symbolised the regeneration of the ritual (Perez Lopez 2013: 56). In Tonina, we can see on an altar on the Great Plaza a depiction of the Moon Goddess with a prisoner in front of her. This altar was located in the context of ballplay (Ardren 2002: 108). The bloodletting was always done by a woman. The perforation of the penis could not have been represented on public monuments. It was taboo (Perez Lopez 2013: 102). Women were often associated with the serpent, such as the ritual of the vision serpent, practiced exclusively by women (Ardren 2002: 192). Another ceremony was practiced by women only. An elderly woman led the ceremony called *nichte kay* (Rodriguez-Shadow 2007: 104). The enema ceremony was an anal injection of hallucinogens or alcohol. The aim was to obtain a trance to communicate with the ancestors or the gods. Women were assisting the men (Patrois 2008: 214). Jade and

spondylus shells were used in rituals to be in communion with the ancestors (Masson et al. 2002: 68). Medals or different types of ornaments were seen as heirlooms. They were depicted in rituals evoking the ancestors (Vidal Lorenzo et al. 2016: 235).

Rulers are depicted in ritual ceremonies or other activities in the public displays of the city (Lucero 2007: 411). He was not only involved in public ceremonies. He also had to practice private rituals where he communicated with the deities and the ancestors. These rituals took place inside buildings in the core area. For example, in Quirigua, the ruler practiced private rituals in a structure above the plaza (Sanchez 2005: 264). The murals of Bonampak represented a series of rituals performed between 790 AD and 792 AD (Miller 1986: 23). The murals were disposed of in three rooms. Room 1 is an accession ceremony for the ruler Chaan-Muan of Bonampak (ibid.: 30), followed by a procession of musicians. Room 2 represents a battle victory by the ruler of Bonampak and his allies composed of Yaxchilan and La Pasadita (ibid.: 35). Room 3 is a celebration with auto sacrifices (ibid.: 24). The dominant woman in these scenes is Lady Rabbit from Yaxchilan (ibid.: 36). The Structure 23 of Yaxchilan was the first building erected by Itzamnaaj B'ahlam after a long period of gaps in the rulership (Orellana 2012: 173). This building commemorated the rites performed by the ruling couple and the dynastic line (ibid.: 176). The structure was dedicated to his wife, Ix K'ab'al Xok (ibid.: 175). The stone monuments placed in this building could have been depictions of scenes that were not realistic, but they showed the ideal performance of a ceremony. This record aimed to empower the ruler and his dynasty and show his continuity with the supernatural realm (ibid.: 177). For example, on Lintel 24, he appears with adornments pertaining to his father, which symbolised his legitimacy and his status (ibid.: 180). He commissioned the lintel on a special date: his 28th accession to the throne and the 80th anniversary of his father. This also emphasised his right and authority as a ruler (ibid.: 178). In Lintel 25, the themes of sacrifice and warfare are present. The symbol behind it is to depict Itzamnaaj B'ahlam as the warrior who founded the B'ahlam lineage of Yaxchilan. The Yaxchilan dynasty was reborn with this ruler (ibid.: 188f.).

Myths were recreated in some ceremonies. The maiden myth was widespread in the Maya area. It is the story of a god of the Earth living with his daughter. The daughter was a talented weaver. A man called B'alamq'e, a hunter, was attracted to his daughter. To impress the girl, he wanted to capture a deer daily. Being impossible, he decided to fill the deerskin with stone so that it looked like a new prey every day. However, the father understood the machination. He asked his daughter to pour water on the floor. B'alamq'e was unaware and fell, breaking his false deer. For a long time, he didn't approach the girl. He transformed himself into a hummingbird. The girl asked her father to take the hummingbird back home. Every night, the hummingbird became human. The father understood once again the machination of the hunter. He punished both for their unlawful union (Chinchilla Mazariegos 2017: 83f.; Montoya 2011: 2f.). A hummingbird received the male attributes for his ability in combat and his sexual power (Chinchilla Mazariegos 2017: 86). Many figurines of Jaina represented a woman weaving on her loom with a bird sitting next to her. This figurine gave back the attributes of femaleness and maleness (ibid.: 90). On ceramics, the hummingbird could also be depicted as a mosquito (ibid.: 93). The *temazcal* has a feminine connotation. The grandsons of the primordial grandmother Ixcumane assassinated her in the sweat bath while she was cleaning herself. Since that moment, the sweat bath was predominantly used by women under the care of Ixcumane (ibid.: 105f.).

3.6.3) Activity and space related to households and burials context

The last category of this part will analyse how the different activities could have been ascribed to gender, space, and tools. For this category, the context of households and burials will be interpreted.

Households

Households are residential units that could have been task-specific. This means that each household could have been involved in another activity, such as ceramic production, weaving production, or workshop of bone and stone (Manzanilla 2009: 46). Each household had its own production or activity-related processes (Emery et

al. 2004: 808; Carballo 2011: 143). Households were involved in activities that brought subsistence resources to their members, and they re-created the social norms (Nichols 2012: 640). The residential production was composed of workshops of bone, shell, chert, obsidian, jadeite, and lithic debris (Chase et al. 2017: 212). People could have been involved in an independent production where they were free to choose the production type, the processes, and the locality, or they could be sponsored by the elite where they had to follow the will of others (Nichols 2012: 590). The elite controlled the market and economy of the city (Masson et al. 2002: 226; Chase et al. 1992: 20). Through the tribute, the people had to produce special features for the community by adding some workload to them (Nichols 2012: 641). The crafting activities of the households depended on the needs of the family and city, as well as on the market demands (Carballo 2011: 144). Cities produced their own necessities. However, some items for daily life and rituals, such as basalt, jade, cotton, or obsidian, were traded and exchanged (Gallegos Gomora 2012: 81). The exchange of perishable materials such as maguey or yucca can be reconstructed through the tools that were manufacturing them (Carballo 2011: 146). Sumptuary goods for diplomatic gift exchange or the prestigious feast of the ruler were elaborated in the court craft workshops (Inomata et al. 2018: 177). The elite craft production was based on the sumptuary use of artefacts. They were the masters of prestigious pieces. The utilitarian goods were produced by non-elite social classes (Carballo 2011: 144).

The economy was based on the households and the political institutions. The households were involved in multitasking production, and the state demanded some services from the households for the city's needs (Masson et al. 2002: 367). It can happen that a household was involved in more than one activity (Nichols 2012: 594). The part-time production was an opportunity to diversify the production. When one production was decreasing, they could survive with the other production (Alonso Olvera 2013: 57). The household offered space for different tasks (ibid.: 55). Multi crafting was a secondary income that could secure the household from many kinds of uncertainties (bankruptcy and monotony) (Alonso Olvera 2013: 392; Carballo 2011: 148). Elite households could be involved in a more extensive

production because they could acquire additional help from the non-elite class (Alonso Olvera 2013: 353).

The role of a person can be qualified as the fulfilment of the requisites of her social position. Archaeologically, the role of a person can be identified through the artefacts, space occupation, iconography, and epigraphy (Perez Lopez 2013: 24). “Women have been portrayed as passive, tied to domestic life and its demands, and as peripheral to the economic health of their households”. Instead of that, they were the key to the household’s success (cited by Alonso Olvera 2013: 401). The Maya society was patriarchal. The men dominated the production, and the women were responsible for the production and development of the state (Rodriguez-Shadow 2007: 26). Gender attribution is to connect specific activities, tools, and spaces to one gender or another (ibid.: 30f.). Women were ascribed to the domestic sphere (Stockett 2005: 569; Rodriguez-Shadow 2006: 23; Inomata et al. 2018: 101). They elaborated tools for the house and the community. Men played a role in the crafting and production activities, and their tools were aimed to be exchanged with other communities (Rodriguez-Shadow 2007: 33). Men and women could have been involved in the same tasks, but their ways of working would be different. For example, a man can use various technologies to realise a product, and a woman can have another process to produce the same type of object (ibid.: 34). The more the society was complex and hierarchically organised, the more the gender division was taking place (ibid.: 54). After Rosaldo, biology is not the starting point of the gendered division of labour. However, it will be important if society interprets and attributes roles and hierarchies to people (Perez Lopez 2013: 17).

De Landa listed the activities women had to practice: work to support their homes, educate their children, pay tribute, till and sow their livelihoods, farm, sell things at the market, and raise birds to eat and sell them (Landa 1959: 65f.; Gonzalez Cruz 2011: 235). Women were responsible for the education of the children. If a child was not well educated, they said that the child was a woman raised without a mother (Landa 1959: 65). Men were involved in agricultural production, athletic performance, military activity, and craft production. The important activities of the

court were athletic and militaristic performances. For household tasks, craft production was predominant. Women were involved in food preparation, weaving, ritual performance, and succession. At the court, the major activities were the ritual and succession tasks. For the household, only a few findings permit evidence of the realisation of activities (Figure 46) (Inomata et al. 2018: 89). Women were less visible archaeologically than men, but this doesn't mean they were less involved in prestigious activities.

Gender	Activity	Court	Household
Male	Agricultural production	No evidence	Defining activity
Male	Athletic performance	Important activity	Scant evidence
Male	Military activity	Important activity	Limited evidence
Male	Craft production	Limited evidence	Important activity
Female	Food preparation	Scant evidence	Defining activity
Female	Weaving	Defining activity	Limited evidence
Female	Ritual practice	Important activity	Indirect evidence
Female	Succession	Active role	No direct evidence

Figure 46: Table of gendered activities and their evidence in court and household context (Inomata et al. 2018: 89).

The craft production was space and rank-specific. People who were not involved in subsistence production had to perform other activities that were reserved for a particular social class. This social class lived near the epicentre (Alonso Olvera 2013: 53). Work related to ceremonies, political exchange, and diplomacy was realised by the elite members. The physical work, such as the fieldwork and the construction, was performed by the commoners (ibid.: 65). Activities were specialised and segregated for their production stages rather than the materiality of the artefact (ibid.: 71). The craft activities took place on platforms. For example, Xuenkal Structure 8M-001 had a massive basal platform. Ceramic sherds, animal bones, and lithics were found (ibid.: 90f.). Robin and Inomata affirm that the different gendered activities were spatially segregated (ibid.: 331f.). If the gendered activities were strongly divided, every task, tool, and space would show segregation. This is not the case. Only processes were gender specific, not the whole activity (Ardren 2002: 16). Different gendered activities might have used a defined space or room during the day (Goldsmith 2006: 278). Small one-room buildings could have been used for one activity. The juxtaposition of these rooms composed a structure where different residents realised different tasks in different locations (Emery et al. 2007: 84f.). Working spheres were not always visible, but they were complementary. An activity could involve many household members in the

different processes and locations where the different tasks were done (Alonso Olvera 2013: 333). The presence of benches could indicate the room's uses as a dormitory or as a working area, depending on its orientation in the space (ibid.: 116). Benches in rooms could have been used as thrones for the ruler and "areas where various officials, scribes, and other members of the court could attend the lord" (cited by Schele et al. 1998: 76; Inomata et al. 2002: 309).

The analysis of the artefacts recovered on households' floors was a suitable method for understanding the locality and the kind of activities that took place in the households (Goldsmith 2006: 301). However, the context could have been unintentionally changed through the passage of animals, the forest growth, the erosion, the outwash, or the modern use of the region (ibid.: 174). The tool distribution can also be biased. The tool can be stored elsewhere than where it will be used (Halperin 2008: 121).

The relationship between both genders could have been composed of interdependency, complementarity, asymmetry, or equality (Rodriguez-Shadow 2006: 28). "The ideology stressed out that no man or woman can be complete without the other" (cited by Joyce Rosemary) (Ardren 2002: 86). Complementarity can express an interdependency between the male and female activities. Each gender had specific tasks, but when we put them together, they supported each other (Perez Lopez 2013: 20). The different gendered activities were mutually supportive. The end result of the tasks presented a product realised by both genders in complementarity (Stockett 2005: 568). The division of tasks and labour activities was necessary and complementary (Manzanilla 2009: 120). "In creating artefacts, people fashion the very structures of their existence, expressing and reproducing relation through the objects they made and manipulate" (cited by Schortman/Urban) (Alonso Olvera 2013: 51). The cooperation of production permitted the realisation of tools and artefacts rapidly and to "increase the cohesion of corporate groups" (cited by Alonso Olvera 2013: 301).

Three gendered and residential activities will be taken into focus: (1) the subsistence work, (2) the lithic, shell, and bone workshop, and (3) the textile production.

- (1) The farming activities were linked to the commoners and were not recorded iconographically, such as the ritual performance of the elite (Ardren 2002: 23). 90% of the population could have been qualified as farmers, as people involved in subsistence (Nichols 2012: 327). Elites and commoners realised different tasks (Chase et al. 1992: 8). The commoners worked the earth, and the elite was involved in politics and economics. The subsistence resources were exchanged to the elite for their task specialisation and the tribute payment (Masson et al. 2002: 226). The farming activities were first a female task. With the increase in population and subsistence supply, new technologies and labour forces were needed. The men were taking over the domination (Ardren 2002: 14). For Robin, farming was not a male-based activity (Stockett 2005: 571). Men were ascribed to tasks such as subsistence work, hunting, carrying wood, and building houses. In contrast, women were carrying water and babies, weaving, selling goods, and preparing food (Ardren 2002: 37). A woman without children will spend more time in the field than a mother (ibid.: 38). The more the population growth, the more the subsistence work will increase, as well as the domestic tasks (ibid.: 41). Infields were cultivated areas near the house, and outfields were surfaces outside the residential area of the city (Arnauld 2014: 127). Gardens or small agricultural terraces were located between the households for the residents' personal subsistence (Chase et al. 2017: 186). The man first prepared the garden. Then, both genders planted the seeds. And finally, the woman was responsible for watering and seeding. The garden was a complementary activity (Ardren 2002: 37). Coati, deer, and domesticated dogs were raised by households for food supply and tools (Alonso Olvera 2013: 192f.). Some households owned outfields. Killion believed that some activities could have taken place there instead of the household (Goldsmith 2006: 58). Río Bec was a remarkable and innovative settlement based on agriculture. The residences were shared with other families. The surface of the fields was more important than that of the residences. The field's productivity increased, whereas the residential space was partitioned (Arnauld 2014: 122). It was a type of cohabitation with a shared kitchen (ibid.: 115).

When one finds a *mano* in a structure, this could probably mean that the structure was used as a kitchen (Inomata et al. 2018: 43; Goldsmith 2006: 247). Palaces lack evidence of cooking tools and sleeping areas. They differed functionally from the other residences (Inomata et al. 2018: 134). Ceramics as a container were employed for food preparation, storage, eating, and serving (Nichols 2012: 612). At Copan, the elite residence complex 50/51 had a large number of ceramics, which could have been used for food preparation, storage, or serving (Webster 1998: 334). If a site changes the ceramic production, this could mean that the food preparation and diet have changed (Alonso Olvera 2013: 178). In his books, the friar Diego de Landa wrote that women were involved in food preparation. Food and drinks made of maize were dominant, but they also prepared dishes of vegetable stews, deer meat, and wild and domestic birds (Landa 1959: 43). Women preparing food for the household or rituals were reinforcing the social connection and the feeling of membership of the community (Rodriguez-Shadow 2007: 53). Women and men didn't share the same space during food consumption. Women were responsible for the food preparation and its serving. They needed to feed the men and visitors. For example, during feasts, women were occupied serving the food and drinks rather than speaking with the visitors (Landa 1959: 43f.; 26 EMC conference about eating and drinking 2021).

- (2) Stone artifacts were composed of obsidian blades, biface, and basalt metate (Christie 2003: 23). Aguateca was a large and politically important site that was suddenly abandoned (Emery et al. 2007: 72). This site is valuable for its artefact remains, distribution, and space organisation. For example, 10,845 remains were from lithics assemblages composed of 8,322 artefacts from the chipped-stone workshop, and 2,922 were made of obsidian (ibid.: 81). From the 9,510 shells and bone remains, 4,452 were manufactured (Emery et al. 2004: 799). The shells were manufactured on the platforms (Alonso Olvera 2013: 271). In Río Bec, the workshop of stone tools is exclusively located in the residential and domestic areas (Arnauld 2014: 115). The debitage of lithics was practiced elsewhere, other than on the platform. Only manufactured tools were found there (Alonso Olvera 2013: 215). Complex 66 had more lithic artefacts. His function could have been a debris-

production workshop (Webster 1998: 334). The house of the mask was a palace and an administrative complex. Inhabitants were involved in tasks such as decorating animal skin. The House of the Mirrors used artefacts of bone, shell, and lithics to create insignias. The house of the axe was a place where meat and skins were processed for further household workshops (Emery et al. 2004: 802).

The lithic tools recovered from Chau Hiix showed marks of use and stone manufactured intentionally (Goldsmith 2006: 158). Different techniques of lithic work produced different lithic tools. Knives, arrows, and spears were shipped stones (Nichols 2012: 602). Metate and mano were ground stones (ibid.: 603). Polished stones regrouped the ornament stones (ibid.: 604). Cement and stucco pertained to the burned stones (ibid.: 605). The metates were found in different domestic locations, varying in size, shape, and material (Alonso Olvera 2013: 238). Metates didn't have only a purpose for food production; they could, for example, have been used for processing shells and grinding minerals for the dying of the textiles (ibid.: 240). Stuart deduced that the sign for the metate and grinding stone was composed of the *bent-cauac* element, which could be read as *KA'* (Figure 47) (Stuart 2014: n.d.). The function of the Structure M8-10 of Aguateca could be interpreted through the material remains that were found archaeologically. Artefacts and implements of scribes were found.

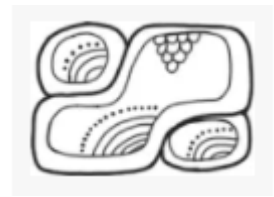


Figure 47: *bent-cauac* element for metate or grinding stone (Stuart 2014 : n.d.)

This structure served as the house of the scribe. The patio group formed by Structure M8-13 was a stone workshop. Many lithic tools were discovered there (Emery et al. 2007: 81). Obsidian's presence can show the households' involvement in the regional economy (Goldsmith 2006: 162). Obsidian workshops were more homogeneously distributed at the periphery of the city than in the core area (Arnauld et al. 2015: 59). On platforms, different types of obsidian tools were found, such as flakes, percussion blades, pressure blades, prismatic blades points, and chunks (Alonso Olvera 2013: 211). These tools could have been used for cutting, perforating, or scraping (ibid.: 213). The presence of lithic workshops inside and outside the households can suggest that men and women were involved in such activities (Ardren 2002: 45).

(3) Textile production was qualified as a female-gendered activity (Ardren et al. 2010: 274). However, elderly and disabled men were also included in textile processes (Rodriguez-Shadow 2007: 36). The cloth production was manufactured within the household compound on the patio. All the household members were involved (Ardren et al. 2010: 275; Halperin 2008: 112). The more the textile demand for tribute augmented, the more men were involved in helping women in their textile production task (Rodriguez-Shadow 2007: 37; Landa 1959: 66). Textile was highly valued and was a key component in the economy (Ardren et al. 2010: 275). In Motul de San Jose, textile tools were found exclusively in residential contexts (Halperin 2008: 117). Tools used for weaving and spinning were composed of spindle whorls, containers to maintain the fibre and to support the spindle (Ardren 2002: 54; Nichols 2012: 630), bone needles, and awl (Ardren 2002: 63). Sherd disks, perforators, and pins were used for the textile production, but they could also have other functions (Halperin 2008: 114). Through the differentiated shape and weight of whorls, we can identify which material was woven (Ardren 2002: 61). Small ones could have been used for weaving cotton textiles, and big ones were used for maguey textiles (Alonso Olvera 2013: 343; Nichols 2012: 630). Cotton was reserved for the elite and maguey for the commoners (Alonso Olvera 2013: 351). In the elite residences, the weaving activity was segregated from others, whereas in lower-rank social categories, the weaving activities could have taken place next to others (Halperin 2008: 113). Depending on their status and social rank, women could enjoy more or less independence and autonomy (Rodriguez-Shadow 2007: 44).

Burials

The theme of the burials will focus on following points: (1) the locality of the burials and their meaning, (2) the identity and (3) status of the dead individuals, (4) the primary and secondary treatments of the corpse, (5) the accompanying people of the dead, (6) the gendered question of the textile grave goods, (7) the activity inscribed in the skeletal remains, (8) diet and health conditions, and (9) the dental beautification.

- (1) Tombs were, for the Maya belief, the entrance to the watery underworld. Some grave goods symbolised the marine origin (Fitzsimmons 2010: 68). The tomb could also symbolise the entrance as a cave (ibid.: 71). Tombs were also seen as houses for the physical remains of the dead (ibid.: 72). In Naachtun, many burials were placed under the benches (Goudiaby and Nondédéo 2020: 35f.). Burial constructions above the tomb could include benches, stairs, platforms, and altars (Welsh 1988: 215). Dominant individuals were buried in the core area near palaces and temples, whereas low-status burials were located near their households (Whittington 1991: 172; Welsh 1988: 153). The placement of burials into the household area can modify the residence organisation and the passageway. For example, in Naachtun, Structure 5N5 had a burial 51, which was located “on the passageway between the central and northern room” (cited by Goudiaby et al. 2020: 45). This led to a modified circulation way for the inhabitants. They could no longer cross the house from the inside but from the outside (ibid.: 47).

Burials were seen as places where the body of the dead would pass from the world to the underworld. The grave goods would accompany the dead in their other life (Kunen et al. 2002: 198; Welsh 1988: 15). They could give back the gendered identity and the different tasks the person was involved in (Stuart and Houston) (Dacus 2005: 31). It can happen that some burial type was gendered. For example, in Comacalco, men were placed in funerary urns with grave goods, while women were placed in small urns (Gallegos Gomora 2012: 84).

- (2) Burials can express the identity of the person or how the surviving family members wanted the dead to be remembered (Ardren 2002: 4). Since the 80s, some scholars under them, Binford, Carr, Krejci, and Culbert have ascribed possible tasks to genders through the funerary contexts (Perez Lopez 2013: 16). Burials are one of the best sources of information about gendered differences because the living realised them following the social belief of gender (Ardren 2002: 69). The grave goods of an individual were disposed of by the living survivors which expressed their relationship to the dead conformed by the social norms (Ardren 2015: 103). We need to take caution while examining a burial.

The burial context expresses the beliefs of the living members and the dead social identity (ibid.: 105). Grave goods could have been linked to the activities the individual realised in his lifetime. For example, men had a greater variety of artefacts because their tasks were more diversified. They could be involved in activities such as shamans, warriors, or healers. Women had fewer varied kinds of tasks, so their artefacts were similar (Ardren 2002: 76). Women shared the same gender and activities (Ardren 2015: 144). Grave goods could also have been composed of symbolic tools. This means that they were never used for any task. They were only manufactured for grave goods (Dacus 2005: 33).

Grave goods could have been composed of ceramics, figurines, jade, bone and shell ornaments, obsidian artefacts, textiles, codices, manos and metate, and ritual artefacts (Welsh 1988: 102). Ceramic vessels were more associated with male burials than female ones. It can be due to their broader appetite and easier access to resources and meat (Manzanilla 2009: 11). During the Late Classic, obsidian tools were no longer seen in male burials. Women had access to more diversified tasks where obsidian was used. For example, they could have used obsidian to cut wood and leather (ibid.: 14). Artefacts that were mostly found in female burials were mirrors for communication with the ancestors, metate and manos for the food preparation (even if the elite women delegated this task to others), sumptuous ceramics, and weaving tools (Perez Lopez 2013: 104f.). In Yaxuna, of 42 individuals recovered from burials, 14 were biologically women, but 22 corresponded to the female gender (Ardren 2002: 71).

- (3) Grave goods permitted to identify the social status of the individual (Carrasco Vargas et al. 2000: 29). Grave goods, chamber forms, and location of the burial were indications of social rank and power of the person (Ashmore et al. 2016: 8; Garcia Vasquez 2017: 33; Carrasco Vargas et al. 2000: 29; Gonzalez Cruz 2011: 235). In Uxul, Structure K2 contained Tomb 1. This structure served as a palace. The funerary chamber was vaulted and was specially built for this purpose (Davendahl et al. 2013: 22f.). The tomb of the Red Queen from Palenque was located in the Temple XIII. She was a high-ranked woman (Lopez Jimenez 2004: 66). Burials of prominent women had grave goods associated

with their social identity (Dacus 2005: 18). High-ranked burials were located at the city's core area. In Caracol, most of the stone spindle whorls were found at the epicentre. Spindle whorls made of perishable material could have been more widely used in other social classes and could also have been present in a wider area than the epicentre (Chase et al. 2008: 131).

The difference between social status was the presence of grave goods, their materiality, and elaboration. The more exotic and rare the material used was, the higher the status of the individual was. When tools and artefacts had a simple utilitarian function, the person was from a non-elite social category (Couch Hernandez et al. 2015: 81; Rodriguez-Shadow 2007: 157; Perez Lopez 2013: 71; Palomo et al. 2017: 309; Welsh 1988: 146; Chase et al. 1992: 67). Jade and spondylus found in burials pertained to high-ranked people (Masson et al. 2002: 45; Dacus 2005: 27). More than 700 jade artefacts were contained in the grave goods from the Calakmul burial context (Lopez Jimenez 2004: 67).

- (4) The primary burial context consisted of placing the corpse of the dead in a special deposit. However, the secondary burial context was an intentional manipulation of the skeletal remains (Welsh 1988: 35). Burials of individuals with perimortem and postmortem treatment can be found at Palenque, Becan, and Calakmul (Tiesler et al. 2006: 497). The death ceremonies took place after 100 days. These days correspond to active body decomposition (Tiesler 2004: 146). Joyce affirms that a funeral can link or re-establish a link from one living person to another. A person's connection to the deceased will be permanent and of great importance for the social status of the living one (Ardren 2015: 106). Eberl defined the process of the death ritual. After a person died, up to 10 days were used to mourn the dead. 100-400 days were needed to place the corpse in his mortuary place (Tiesler 2004: 145). The deterioration of the skeleton depends on time and environmental conditions. The more the climate is wet, the faster the taphonomy occurs (ibid.: 149). At the site of Holmul, 70% of the bones' remains were deteriorated (Garcia Vasquez 2017: 36).

Bundles of dead people were carried on a perishable mattress. On the ceramics, we can see the dead lying on a litter (Tiesler 2004: 150f.). Individuals who were

bundled were in a flexed position. No bundle was found with an individual in an extended position (Fitzsimmons 2010: 79). Bodies were dressed to protect them from their environment and to adorn them in the other life (ibid.: 84). Even if archaeologically few textile fragments were found, we cannot imagine the Maya bounding people naked. Nakedness was an insult and humiliation and was only seen on war captives (ibid.: 76). If the body of the dead person was wrapped in a bundle, it can be possible that the textile used left some marks on the bones (Tiesler 2004: 150). The presence of ceramics indicated that the dead needed to be fed; meanwhile, they transited to the afterlife (Fitzsimmons 2010: 86). Masks or plates were placed on the skull to protect their identity and to conserve their shape (ibid.: 92).

Skulls or long bones were often removed from the burials when people re-entered the tomb (Houston 1998: 312; Goudiaby et al. 2020: 37). They received a special emphasis and meaning. They could have been used as war trophies or ancestral protection (Fitzsimmons 2010: 166). Female skeletal remains of prestigious women were seen as relics. The warriors used these relics to gain power and vanquish the enemy (Rodriguez-Shadow 2007: 159; Nichols 2012: 779). Moreover, skeletons that were coloured red with cinnabar can be identified as venerated ancestors (Dacus 2005: 22). The use of cinnabar was to give the impression of a still-living body (Schele et al. 1998: 128; Lopez Jimenez 2004: 68).

- (5) Prominent rulers were accompanied by sacrificed people in their tombs. These people should help the dead ruler to reach the underworld. They had a ceremonial and grave good value (Tiesler 2004: 73f.; Fitzsimmons 2010: 96). Sacrificial persons that had to accompany the dead were predominantly young people, placed in the tomb in an abnormal position, and their remains showed cutting marks (Palomo et al. 2017: 307; Carrasco Vargas et al. 2000: 30; Tiesler 2004: 76). For example, an adult woman within the grave of the Red Queen from Palenque showed marks on two ribs and the thoracic and lumbar vertebrae. These are evidence of perimortem treatments (Tiesler 2004: 83). The cut marks are regular and straight. They were intentionally made after the death of the person (Tiesler et al. 2006: 502). The health of the sacrificed individuals was

poor. They were seen as useless to society. The only task they had to do was to help the dead to reach the afterlife (Palomo et al. 2017: 316).

- (6) Weaving tools were mostly found in burial contexts. They were made of ceramic, wood, or bone (Dacus 2005: 13). The tools can be carved and dedicated to their owner. For example, *u puutz'* means the needle of (ibid.: 15). *Alay tabay yich u puuhtz' b'aak k'uhul ix* was a dedication signifying here it is raised up, his/her writing its face the needle bone of holy lady (ibid.: 60). The textile material and the spindle whorl size were indicative of status. The elite women weaved clothes made of cotton, and the commoner women would weave clothes made of maguey fibre (Chase et al. 2008: 130). The gender of a skeleton in a tomb can be deduced through the nature of the grave goods. For example, in Caracol, royal female burials had weaving and spinning tools as grave goods. These activities were female gendered (ibid. 127). In Copan, the Margarita tomb pertained to a mature woman. She wore many ornaments of precious stone and an elaborate costume, and her bones were painted with cinnabar. She had an elite status and played a significant role as the city's founder. The burial also contained bone needles, bundles of textile, loom weights of shell and jade, and bone weaving picks (Ardren 2002: 97). For Schele, this woman was adorned and depicted as an aspect of the Moon Goddess, as a weaver (Ardren 2002: 99; Chase et al. 2017: 202; Moreno n.d.: 5).

However, some findings about textile production tools were ambiguous. Tomb 7 of Monte Alban was built during the Classic period, but the deposit was made after the abandonment of the ceremonial centre (McCafferty et al. 1994: 143). The skeleton of the most complete individual corresponds to an adult male of 55 years old (ibid.: 144). The grave goods found were tools associated with female spinning and weaving activities, such as spindle whorls and weaving battens (ibid.: 145). The textile production was gender specific, but it must not correspond to the biological sex (ibid.: 149). The sex determination of the individual in tomb 7 of Monte Alban was complicated. The skull was robust and indicated an elite status. Strong women or common men could have had robust skulls. The mandible found near the skull was female, but the patella was

male (ibid.: 150). We can deduce that the individual can be a powerful woman or a man (ibid.: 152). Some weaving items were found in male burials. For example, in Copan, the Hunal tomb contained bone awls, and in Altun Ha, needles were found in male burials (Carter et al. 2020: 159). At Barton Ramie and Tzimin Kax, spindle whorls and needles were found in male burials (Halperin 2008: 112; Chase et al. 2008: 129). The needles could be found in male and female burials. They were not only used for textile production (Chase et al. 2008: 134). This can be an indication that not every textile production process was female gender-specific (ibid.: 129). Through the increase in textile production, men were helping women in some processes (Nichols 2012: 665), such as tailoring, dyeing, or even planting cotton (Carter et al. 2020: 159).

- (7) Musculoskeletal stress marker (MSM) can retrace the muscle activity of the person (Weiss et al. 2010: 1; Cashmore et al. 2011: 1). The MSM can be seen on the humerus, ulna, and scapula (Weiss et al. 2010: 4). The upper limb will have a higher rate to MSM asymmetry. For example, the medial arm bones (humerus) will be more solicited than the proximal ones (cubitus, ulna) (Cashmore et al. 2011: 2). The muscle attachment development can be differentiated into three levels: robusticity, stress lesion, and ossification exostosis (ibid.: 5). Women had a smaller and more gracile body, but it doesn't mean that they used less of their muscles. The MSM could develop differently depending on the activity the person realised, as well as on the biological factor (Weiss et al. 2010: 9). Muscle morphology can have an impact on the MSM. The more a person is in advanced age, the more the muscle attachment to the bone will be remodelled (Cashmore et al. 2011: 10). The activities realised by men and women were different, and they shaped the bones differently (Maggiano et al. 2007: 9). The upper limb cross-section of the long bones was symmetrical for the women and asymmetrical for the men (ibid.: 6). Men have an asymmetrical bone geometry in the upper limb because the activities they are performing require more strength from one arm. Men have larger MSM than women because they are more used to throwing or hunting (Weiss et al. 2010: 8). Women showed symmetry. They used both arms for their activities. For example, for grinding maize, both arms are needed in a similar way (Maggiano

et al. 2007: 10; Weiss et al. 2010: 8). Different activities may require the same muscles (Weiss et al. 2010: 8).

Women who were weaving knelt and had their toes in a hyper-dorsiflexion (Baker et al. 2010: n.d.). Being in this position for a long time from a young age can affect the development of the phalanges and metatarsals (ibid.: n.d.). Long bones are exposed to a variety of stresses. They adapt to the situation. For example, if a person realised a specific activity during their lifetime, we could interpret it from the bones (Maggiano et al. 2007: 2). Daily repetitive work increases the “pain in the neck, shoulders, and upper extremities” (cited by Bonde 2005: 41). An activity can be qualified as repetitive through “the duration of the task, percentage of the cycle time with exertion of the upper extremities, number of wrist movement per minute, wrist force requirement” (cited by Bonde 2005: 42). Disorders can appear and increase if the person has a mental stress and repetitive work (ibid.: 46). Of 22 individuals, only women showed a bone structure change of the toes (Baker et al. 2010: n.d.). We can deduce that people with this bone composition of the toes must have been engaged in a kneeling activity such as weaving or preparing food (ibid.: n.d.). Women from the elite realised different activities from the commoner women. Martin and Miller affirmed that the bones of courtly women had no bone marks from repetitive activities such as kneeling (Ashmore et al. 2016: 14). Elite women were mostly involved in weaving and political affairs, such as diplomacy and ritual participation. The other tasks that elite women would have realised were delegated to someone from a non-noble rank (ibid.: 16).

- (8) Diet, health, and mobility can be identified through the bones and the teeth enamel (Negrete et al. 2020: 1). Ceramics were used for consuming food and drinks. Stuart affirms that some vessels contained glyphs that expressed what the vessel contained. For example, a cup contained cacao and the glyph cacao was present on the vessel (Loughmiller-Newman 2013: 10). Coe identified that the glyph placed on the rim, called primary standard sequence in short PSS, were dedication of the owner, names of the vessel, indication of the content, and titles of the owner (ibid.: 77). *Lak* means the plate (ibid.: 23) and was used for solid food (ibid.: 72). Containers of food or drinks were the jars, flasks, and

ollas (ibid.: 74). A bowl can contain liquid or semi-liquid food (ibid.: 73). *Uk'iib* means the drinking vessel (ibid.: 23). For example, cups were used for liquids (ibid.: 74). The Maya gastronomy was composed of honey (*chaab'*), pulque (*chih*) (ibid.: 98), fermented cacao (*kal kakaw*) (ibid.: 105), raw cacao (*tzuh kakaw*), mature cacao (*k'an kakaw*) (ibid.: 107), fermented green cacao (*ach' kakaw*), hot chocolate (*k'in kakaw*) (ibid.: 108), honey cacao (*chab' kakaw*) (ibid.: 109), maize cacao (*nal kakaw*) (ibid.: 110), maize beer (*chicha*) (ibid.: 113), atole (*uul*) (ibid.: 114), pozole (*maat'*) (ibid.: 115), tortilla or tamales (*waaj*) (ibid.: 120), maguey juice (aguamiel) (ibid.: 123), fermented honey with bark of the balché tree (*balché*) (ibid.: 126), beans (*b'uhul*), tobacco (*maay*) (ibid.: 129), chili pepper (*lich*) (ibid.: 130), vanilla, yucca (ibid.: 139). The analysis of the residue of the vessel confirmed that the vessels were also used as pigment holders. For example, some pigments were found in the Kislak collection of vessels. They could come from the degradation of the ceramic decoration, or they could have been used as paint pots (ibid.: 298f.).

Children had a different diet than the adults. Their diet was composed of more plants (Negrete et al. 2020: 6). The Maya population was composed of approximately 60% of children and 40% of adults (Marquez Morfin et al. 2020: 225). The more the population had children, the more it could adapt to the environment (ibid.: 226). Young population means a higher fertility rate (Whittington 1991: 181). The strontium that is present in the composition of tooth enamel permits us to give clues about the diet and weaning period of an infant (Song 2005: 1). Through the canine, we can see when the shift between breast milk and solid food was done and which consequences it can have for the child (ibid.: 2). When strontium rates are higher, they indicate the start of solid food consumption (ibid.: 7). A child after 6-9 months needs more nutrients such as protein and iron, and the mother's milk decreases in quality (ibid.: 8). In Lamanai during the Contact time, the health and diet decreased in quality (ibid.: 12). Women had to work harder for the tribute payment. This led to food shortage and the worst quality of breast milk (ibid.: 15). Not enough food and breastfeeding for too long can harm the health of the child (ibid.: 17). Women were breastfeeding their children until their 3-4 years (Landa 1959: 62). The median diet for adults was composed of 55% of maize with beans, squash,

avocado, and deer. For the child, the amount of maize was higher at 66% (Negrete et al. 2020: 9). For Xuenkal, 90% of the meat comes from mammals (Alonso Olvera 2013: 191), 5% from reptiles (ibid.: 185), 2% from birds (ibid.: 189), and less than 2% from marine resources (ibid.: 182).

Diet was status-specific (Chase et al. 2017: 193). The diet of the elite can be analysed through the isotopes and from the skeletal remains (ibid.: 193). The elite's use of a centralised kitchen meant that their diet was different from the rest of the population (ibid.: 210). Elites had more access to meat and a greater variety of resources through the control of marketplaces. Commoners had to consume their own production from the field and gardens (Somerville 2013: 1540; Chase et al. 1992: 20). At Chau Hiix, meat was part of the diet, even for non-elite individuals (Goldsmith 2006: 168). The diet differences between the social categories of the society differ from site to site (Chase et al. 1992: 69). The diet of the commoners was stable over time, while the diet of the elite shifted through the changes in the political sphere (Somerville 2013: 1546). “Household-based agricultural practices (forest management, household garden, milpa) permitted the greater long-term stability of the Maya commoner diet” (cited by Somerville 2013: 1549).

The diet difference between the genders was ambiguous. In some cities, men and women ate similar things (Negrete et al. 2020: 8). In others, women had poorer nutrition than men (Rodriguez-Shadow 2006: 26). They ate more maize. This plant was rich in carbohydrates, which led to a higher number of caries rates in women (Ardren 2002: 73). Caries can appear when a diet is rich in carbohydrates (Cucina 2011: 1). In Xcambo, 167 adults were examined for caries. The rate of caries is high in the population, and the highest portion pertains to women (males 7.4% of caries and females 21.2% of caries) (ibid.: 3). The different caries rates within the social categories can be explained through differentiated access to food resources (ibid.: 2). The high rate of caries can be due to “social stratification, daily practices, gender role in food preparation, and also oral hygiene, hormonal level, age at death, etc” (cited by Cucina 2011: 4).

The more the city was socially complex, the more health problems appeared. For example, the city of Chac Mol was a wealth-equal society. More individuals had access to resources than in other cities and could reduce the risk of malnutrition (Hernandez Espinoza et al. 2013: 60). The sanitary and hygienic conditions in the big centre were more challenging. During the Late Classic period, the population rate increased, which developed pressure on access to resources and sanitary and hygienic conditions (ibid.: 57). For example, garbage contaminated the water and food in Palenque. Malnutrition and infectious diseases were the consequences (Marquez Morfin et al. 2020: 237). During growth, a nutritional deficiency can be identified through the lines that appear in the dental crown (dental enamel hypoplasia) (ibid.: 231). 44 individuals who lived during the Contact period were recovered from Structures 42 and 71 from Tancah (Miller 1982: 115). The health status of these individuals was analysed. 11 people had a lack of ascorbic acid or vitamin C (periodontoclasia), 8 had caries, some had iron deficiency (porotic hyperostosis), many had malnutrition (dental enamel hypoplasia), and some related individuals had a malformation composed of a fusion of the second and third vertebrae (ibid.: 116), and degeneration of the articulation joints (osteoarthritis) (ibid.: 117). These diseases were widespread (Couoh Hernandez et al. 2015: 83).

- (9) To be Maya means to have a cranial modification and a dental decoration (Miller 1982: 117). Dental modifications were considered beauty ideals (Palomo et al. 2017: 322). The predominant dental modifications were the filling and the inlay. However, other methods and procedures were used, such as extraction, colouring, and modelling (Nalda et al. 1997: 18). Inlays filled with precious stones were reserved for the elite social class (Ashmore et al. 2016: 8). For example, in Caracol, women found in the burials had incrustation of jade in their teeth (Chase et al. 2017: 221). Structure 19 of Caracol contained the tomb of a woman. She had teeth inlays with jadeite (Houston 1998: 308). Dental modification could have been used for therapeutic, ritual, and aesthetic purposes (Tiesler et al. 2018: 202). Skull and dental modification were not gendered. However, women were more involved in skull modification than men in dental modification (Carter et al. 2020: 161). We can estimate that 20% of the adult

population during the Classic period had dental inlays (Tiesler et al. 2018: 203). Dental modification appeared in adolescents and adults. Permanent teeth were needed for this practice. It only rarely happens that children have a dental modification (Carter et al. 2020: 164). Dental morphology depends on the heredity of the genes and the environmental conditions in which the person lives (Cucina 2016: 385). The mitochondrial DNA is present in every cell. Through the dental morphology, it would be possible to reconstruct the affinity patterns (Ochoa-Lugo et al. 2016: 138). They indicated the ethnicity and aesthetic ideals of the person and the community they came from (Carter et al. 2020: 158). The variation in dental morphology is higher within than between sites (Cucina 2016: 394). The genotype of the pre-Hispanic Maya is different from that of the contemporaneous Maya due to different migrations of populations (Ochoa-Lugo et al. 2016: 154). Of 107 individuals, 193 teeth had inlays (Tiesler et al. 2018: 204). A high risk of caries arises when the person loses the inlay. 38 teeth were in this case (ibid.: 206).

3.7) Chapter summary

In this Western and Maya reception of the concepts of gender, space, and gendered activities, the general knowledge was presented and placed under study. This doctoral research aimed to understand the basic ideas of the reception of the concepts investigated here in the Western view, as in the Maya view. In Western ideals, a person has to accept and identify with the social norms and distinguish themselves from the other gender. Women were, for a long time, seen as evil beings. For centuries, women shared the same destiny. The body is a natural and social construct. The bodies of both genders are similar and different at the same time. The qualities of the men were more valuable than those of the women. The female body was defined as a cultural property that can't be understood without the male one. The stages of sexuality were reached faster by women than by men. This was an explanation for their lesser ability to think. Marriage can be seen as a loss of freedom for women. They were exchanged as if they had the same value as a land plot in possession of a man.

The space division between genders was separated between the private and public spheres. Women were ascribed to stay in the domestic area, while men were more able to remain in the city's public locations. The best education for the girls was seen as being at home with their mothers. During the 18th century, this view began to lose strength. Women started to have access to science, literature, and philosophy.

Culture is what defines gender roles. However, during crisis periods, the roles were malleable. Women could be involved in male activities. However, they were excluded from some activities because their body was made for reproduction, and their major tasks were the caring of children and the good functioning of the household. Women were too sensible to take part in leading positions. Their tasks were often qualified as leisure and were less well paid. Women engaged in male activities were seen as mannish. They are dependent on the male breadwinners. Sometimes, interdependency can occur in which the men can dominate, and the women can receive protection and subsistence in exchange.

In the Mayan worldview, women were responsible for the creation of the world. Symbolically, the weaving and the childbearing passed the culture further, and they reproduced the ideology. The identity and membership in a community were expressed through the head shaping and the clothing made by women. The cultural unity of the Mayans can be seen through the shared architectural style, language, social memory, and imagination, as well as the conventions of rituals, art, and beliefs. The iconography and epigraphy showed how people had to behave and how to conform to the social roles and norms of society.

Women in the Maya civilisation were defined as powerful beings. Women played a significant role in the marriage alliances. They were responsible for the heir and the succession of the dynastic line. Women were exchanged through marriage to secure trade and economic interactions, military control, and political

friendships between the different dynastic lines and cities. Moreover, the legitimisation of the right to rule passed from the ancestors and the high-ranked women to the heir. It could happen that women were regents or co-rulers. In times of crisis or if no male successors were available, women took the throne and were involved in male activities. Women could also share the throne with other elite men in the form of dual rulership or with a governing council. The epigraphy and iconography were tools used to represent the power of the ruler and the community through visual depictions, artistic styles, the monumentality of the city, the ceramics, and the stone monuments.

The gender roles can be read and deduced from the epigraphy. The titles indicated the social rank of a person and the possible tasks this rank had to perform. The use or omission of gendered prefixes suggested that the gender distinction depended on the roles this person was involved in. The iconography was used to convey visual messages to the population and foreigners. They represented idealistic images of ritual performances, idealised the women, and expressed the truth based on the elite worldview. The figures' poses indicated the status and superiority of the prominent people in the scene. Garments were status and gender-specific. Through the iconography, we can have a glimpse at how the different garments could have looked and how rituals and ceremonies could have been performed. The household and burial context can identify some activities and space distribution. Households were places where workshops or processes of production took place. Sumptuary artefacts were found in elite households, and utilitarian ones were found in commoners' households. Tasks were separated spatially, but they were complementary. Workshops on lithic, bone, and shell were done on platforms, textiles were produced in the patio area, and food preparation was done in the kitchen. Burials were places for the human skeletal remains and the location of the grave goods. The bone can indicate the activities the person did during their lifetime through the muscle attachment to the bone or the bony malformation due to the adaptation to the tasks. Health and diet between status and gender were different and specific from site to site. The tooth enamel was required for this analysis. Grave goods placed within the dead individual could indicate which activity the person

did and which tools were needed. Thanks to that, we can ascribe a gender to the activities or tasks.

Section 1: Architecture

4) Maya architecture

Section 1 of this dissertation deals with Maya architecture. Here, the aim will be to understand how the Maya organised their space with the built architecture and the open spaces. For this, we will see how a city was planned and constructed, which structures were present and how to recognise them, and finally, how the private and public spaces were articulated within the site.

4.1) General features

Under general features, the investigation will focus on urbanism and how it can generate an identity for the community members (1). The Maya cities were planned to follow a special grid and orientation (2). Some constructions were present in the majority of centres (3), which will be analysed in the following pages. For this dissertation, the vaults (4), benches (5), and wall openings (6) form part of the general features of the Maya buildings.

- (1) A space can be defined as the association of building arrangement and open spaces, which together create a whole new space (Hillier et al. 1984: 1 and 92). A building is a general term to qualify a structure composed of rooms and doors (Loten et al. 1984: 5). The construction of structures was firstly a way to improve the quality of life of the first humankind for their protection (against the nature and against the climate) (Siller Camacho 2007: 21). The architecture enables to organise the space between the natural and anthropic one (Barrera Rubio 1995: 6). It is also a media to transmit the group identity of the inhabitants of the city (Ardren 2015: 66). The particularity of Maya spaces could be seen as a dispersed urban organisation where various buildings with a residential function were forming groups of neighbourhoods and surrounding the epicentre (Sion 2016:48). Gaspar Muñoz is defining the urbanism of a city as “el reflejo y la herencia de la Sociedad que la creó, la ocupó, la utilizó y la transformó adecuándola a sus necesidades políticas,

económicas, funcionales y sociales” (cited by Peiró 2015: 15). Therefore, urbanism is the reflect of the society into the nature. It shows the social order and the individuals' beliefs within the city. Every structure is built for a purpose, leading to the site's identity (Rivera Dorado 1995: 28; Hillier et al. 1984: 4 and 203). The spatial organisation is a key to understanding the social relationships between genders (Ardren 2015: 136). People are organised within a defined space through society by the construction of buildings, roads, and markers (Hillier et al. 1984: 27). In addition, urbanism is a social expression of how power, resources, and space are interconnected (Arden 2015: 35). “It is the kingship that dictated which architecture a city must have, and the function of the city dictated its form” (cited by Awe et al. 2012: 166). However, in some Maya sites, the dynamic could have been a bottom-up strategy. For example, in Río Bec, the monumental architecture from the core area attracted people to settle down. People organised themselves in neighbourhoods. Each neighbourhood had its own organisation composed of a leader and servants. They could have a role to play within the political organisation of the whole city (Marken et al. 2023). The construction of a new city was made through their beliefs and what they knew. They could have copied an unusual structure from another place and adapted it to their own (Houk 2015: 275f.; Hutson et al. 2014: 432). Looper affirms that some sites, through their connectedness, could share similar architectural features. For example, Quirigua had a similar architecture to Tikal and Copan (Ashmore 2013: 151). “The degree of integration and connectivity can be used as a predictor of how busy or quiet a space will be” (cited by Morton 2007: 45).

- (2) The Maya city centres were planned before their construction. The Mayas imagined the shapes and forms of the structures as well as their arrangement with the open spaces to create harmony (Ashmore et al. 2021: 36). Lampl affirms that city planning is a “disposition and organisation of structures and open spaces according to a conceptual order following pre-established rules of functions, rituals, or aesthetics” (cited by Mosher 2010: 21). For Lynch the cities are “the product of many builders who are constantly modifying the structures for reasons of their own” (cited by Marken et al. 2023: 284). The spatial organisation could be analysed through three methods:

- The city could be shaped as a reproduction of the cosmos (Siller Camacho 2007: 21; Webster 1997: 221; Houk 2015: 269). The planning of a city can be a reproduction of the cosmos in which the cardinal directions and the verticality and levels of structures were the fundamental knowledge used (Nichols 2012: 709). They reflect the axis mundi in their spatial organisation with the north-south and east-west axis (Rivera Dorado 1995: 35; Matos Moctezuma et al. 2010: 38; Peiró 2015). The north side was mostly public, with buildings having a non-domestic purpose, whereas the south side was mostly private and composed of domestic units (Bazy 2013: 16; Ashmore et al. 2021: 42f.). Robin could see one counter-example with the site of Chan in which the residences were placed at the north of the site, and the public buildings were at the south (Robin 2012). The core area of a site has mainly a north-south axis in which the northern and southern parts are complementary in their function. Ballcourts could be the middle point of both axes (Gamez Diaz 2013: 50; Peiró 2015). For example, the central plaza at Tikal has a cosmic order. The twin pyramids represent the sun's path. On the north, the Acropolis can symbolise ancestral remembrance and heaven. The south is the area for the palace. The ballcourt located in the middle is the entrance to the underworld (Mathews et al. 2004: 55). The layout and orientation of a city could be related to some astronomical bodies such as the sun, the moon, or Venus (Sprajc 2005: 210). If this was the case, we can ask ourselves why they took these as points of reference and why they play a role for them. As we already know, the structures oriented through Venus could correlate with the events linked with the rainy season (ibid.: 212).

- The cities were planned on strategic locations following the landscape's topography (Miller 1999: 35). For example, Yaxchilan was built near the Usumacinta River, and Aguateca was constructed near a ravine. The location can bring some needed natural resources to the inhabitants or be used as a natural defence (Peiró 2015: 332; Andrews 1991: 5). Caves were important places for the Maya. Indeed, they could symbolise a ceremonial (entrance to the underworld, house of gods) and domestic (protection, water sources, presence of material resources, possibility for storage of goods) environment (Breton et al. 2003: 112; Hutson et al. 2014: 431). Sometimes, it was possible to overcome and modify the landscape by the construction of agricultural strategies, for example, but in other

cases, the Mayas needed to adapt to their landscape (using different construction materials available, importation of goods unavailable, etc) (Morton 2007: 34; Marken et al. 2023). The shape of the architecture was copied from nature (Valenzuela Aguilera 2000: 41).

- The cities could also be organised on the one hand in concentric circles (Inomata 2008: 175). This means that the core is made of ceremonial and political structures followed by civic, administrative, and economic buildings and ending with residences (Peiró 2015: 19). In this way, the city could expand through the periphery (Mosher 2010: 21). However, no strict application of the concentric model of the cities can be seen (Chase et al. 1992: 131). On the other hand, it is more reliable that the cities were organised in groupings or neighbourhoods. Indeed, the monumental architecture was present in the core area, which was surrounded by groups of structures composed of residences, workshops, and in some high-ranked neighbourhoods of temples (Marken et al. 2023; De Pierrebourg 1999; Ashmore 1981; Sion 2016).

The orientation of buildings could be done in three different ways:

- after the cardinal directions: for example, structures with four stairways could have been placed in the four cardinal directions (Mathews et al. 2004: 53).
- to focus on the site's highest and/or most important structure (Ashmore et al. 2021: 38), such as towards the major pyramid temple (Houston 1998: 463).
- After some stars or planets, for example, the palace of Uxmal is oriented with Venus (Peiró 2015: 269).

- (3) If somebody wants to investigate the built environment, he will have to study the plaza, the palaces, the causeway system, the water reservoir, the ballcourts, the temples, and the tombs (Houk 2015: 14). The cities were seen as space where administrative, religious and commercial activities took place (Nichols 2012: 713; Schele et al. 1998: 23). The core area can be composed of pyramids, quadrangles and acropolis structures (Andrews 1986: 76). Therefore, we can suppose that in the Maya society, two types of architectural construction existed: the domestic and the non-domestic (Piedrasanta Herrera 2009: 95). Within the city the major or most

important group of structure can be defined through the architecture but also on the design and attention that was put on some buildings. For example, in Oxkintok, the most important group of the site was Ah Canul because of its elaborate sculpture of the façades with the *pop* or mat motives (Rivera Dorado 1995: 32). The core area of a city is more densely constructed than in the periphery (Inomata 1997: 341). Every new king that ruled over a city had to be involved in some architectural modifications and expansions due to his role as impersonating the cosmos on earth (Rivera Dorado 1995: 39). Sites were more or less expanded and settled. Some cities were more important than others and were hierarchised as belonging to a rank of 1 to 3. For example, Uxmal was a rank 1 city, Kabah and Sayil were part of the rank 2, and Labna was a rank 3 site (Dunning 1992: 72). What we can see from the sites is only the latest construction phases due to the system of overbuilding (Kowalski 1999: 222). The system of constructing over pre-existing buildings enables the gain of time and material use. It could also permit one to stay in connection with the past and memory of the ancient structure (Cecil et al. 2018: 159f.; Houston 1998: 124). Before constructing a building or its modification, a burial could be put under it (Goudiaby et al. 2020: 50).

- (4) Vaults are an architectural feature that is present in many different types of buildings. A vaulted building had a special and essential function for society and couldn't be a simple residence for the commoners (Wyllys Andrews 1980: 301). They pertained to people of higher social status (Hohmann 1995: 28). Most of the structures located in the core area are vaulted (Archive INAH Coba 1976). Different types of vaults (bottled, stepped, concave, semi-elliptic) could be analysed within the buildings (Figure 48) (Quintana et al. 2001: 158). Vaults can be used as a strict construction feature for a building, or they could be used as a sculptural surface where some painting remains were found (Mayer 1983: 6). Moreover, portal vaults, present in some sites in the Yucatan state, were used probably as entrances to the core centre of the cities (Andrews 1988: 35).

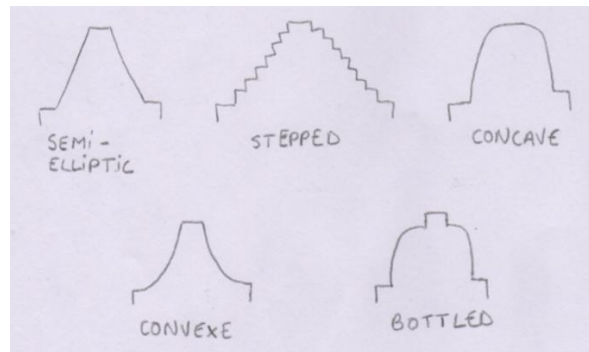


Figure 48: Representation of the different vault types (made by the author)

The author investigated the vaults by recollecting data from the visited sites during her fieldwork (Annex 1.1). The aim will be to understand which kind of vault shape was mainly used, if there is a structure that contains the same vault form, where the majority of vaults are located, and if a vault shape follows a geographical and temporal frame. During the author's investigation within the sites, she could observe the vaults from the buildings that were accessible to her (accessibility to the interior of the building because of the invisibility of vaults from the outside, remaining proof that the structure once contained a vault). As we know, there are different kinds of vaults. Two of the 257 structures within the data grid pertain to the bottled shape, representing 0.8% of the sample. 14 vaults were stepped, resulting in 5.5% of the sample. 6 had a concave shape, representing 2.3% of the sample. Finally, the semi-elliptic vault is the most present, with 235 appearances, resulting in 91.4% of the sample. We can see that the bottle vault was never or rarely used (Figure 49).

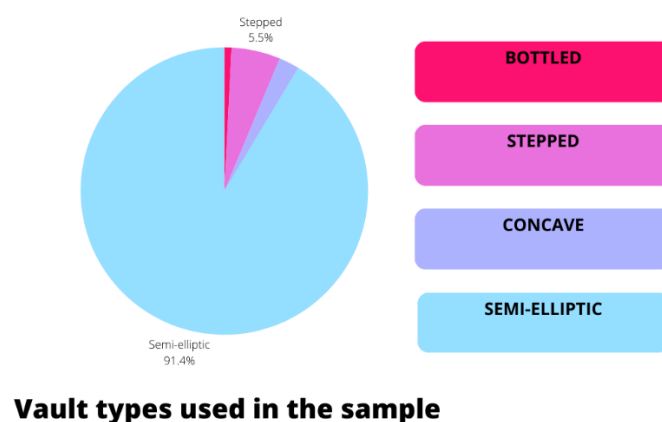


Figure 49: Graph of vault types used in the sample

Vaults were seen mostly within the core area of the cities, being present in structures such as temples, ballcourts, range structures, palaces, residences, and arches. They played a role in ceremonial, civic, political, and residential buildings and could be used as an entryway to the centre. Also, their location was near essential structures for the community (temples, acropolis, palaces, E-group, residential compound, etc.). However, some shapes were preferred for defined structures. For example, from the sample, we can deduce that bottled vaults were used in range structures. Stepped forms were seen in temples, range structures, fortifications, and under some stairs. Concave vaults were used in arches, temples, range structures, and pyramids.

The scale of a site could have influenced the variety of vaults present. Primary sites were cities and capitals of a region. These cities were large and were composed of elaborate constructions. Secondary sites were cities whose expansion and political sphere were lower than those of the primary centres. Stepped, semi-elliptic, bottled, and concave vault types could be found in primary sites, whereas in secondary sites, all types are present except for the bottled one. We can suppose that this type was reserved for high-status buildings that were only present in primary centres.

The architectural styles that divided the Maya civilisation used the shapes of vaults differently. For example, the concave form is mostly present in the Puuc region. The stepped vaults are almost available in every architectural style region, except for the Maya-Tolteca, Chenes, and Río Bec, where only semi-elliptic vaults have been analysed from the data collected. The bottled shapes present in the grid come from the Petén and Usumacinta. No further analysis can be made about this last form due to a gap in the data.

Moreover, we can try to understand if a vault shape was period-dependent. The bottled form was used from the Middle Classic till the Late Classic, as is the case for the stepped one. However, in the Usumacinta region, the stepped vaults were present from the Middle Classic till the Postclassic period. One vault type, the concave, was more present during the Postclassic period.

Through the literature and the sample, we can propose that:

- The vaults were located in the core area

- Their shape was time and space-dependent
- Semi-elliptic vaults were predominant
- Vaulted buildings played an important role in the site

(5) Benches are most of the time present in various structures with different functions.

A bench is “a relatively small platform-like feature associated with a building, usually within a room but occasionally abutting an exterior wall face. Though they are sometimes primary building features, benches are very often secondary additions. The term bench is simply a unit designator and does not carry with it any implication of specific use; the variety in form, location and core contents of benches suggests, in fact, that the feature saw a wide range of uses” (cited by Loten et al. 1984: 4). Benches could have been used as beds, as chairs, as seats, or as working spaces (Hohmann 1995: 33f.; Coe 1976: 57). The presence of more than one bench in a room can signify that an activity requiring more than one person took place (Hohmann 1995: 138). Moreover, they could have different shapes: rectangular, L-shaped, C-shaped, and U-shaped (Hendon 1990: 123). Benches with a C-shape, for example, could have been used as shrines or for meetings (Eberl 2014: 232). Besides, benches could have different heights: low (less than 30 cm), middle (around 50 cm), or high (more than 60 cm) (Archive Campeche Calakmul 1984 Hid Fernandez).

The sample the author recollected from her fieldwork was analysed to understand if different shapes and heights can have an impact on their use and location within a city (Annex 1.2). The majority of the benches are not visible from the outside. That is why the sample is limited to the buildings that were accessible. As we saw earlier, four different benches were made in various shapes. The C-bench represents 1.4% of the sample, the L-bench 13.8%, the U-bench 14.9%, and the rectangular bench 69.9% (Figure 50). All the bench types were found within palaces, residences, and temples, except for the L-bench, which was not found in the palaces (after the sample). The benches in palaces and temples could be used to segregate a space for different activities. Also, decorations could adorn a bench, transforming it into an elaborate throne. This could be seen in palaces and temples.

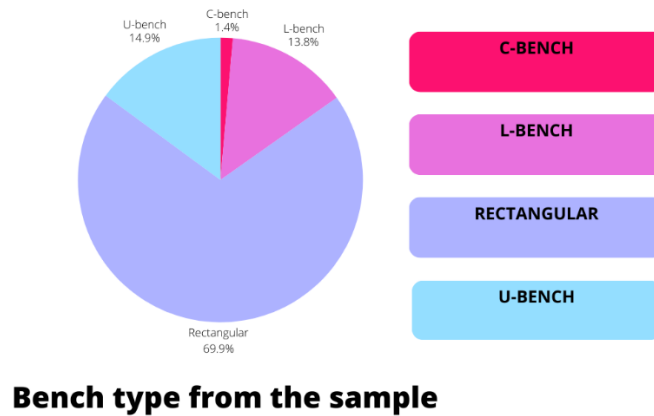
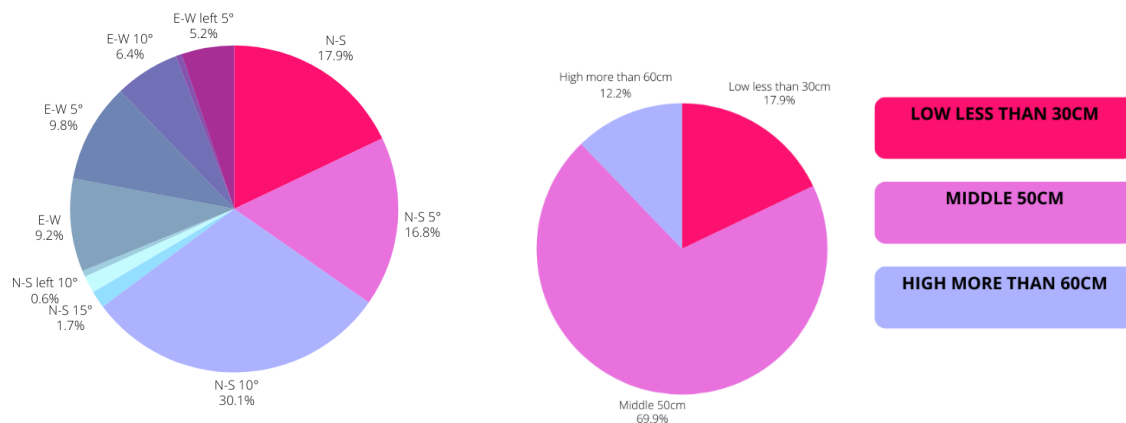


Figure 50: Graph bench type from the sample

The structure's orientation and height of a bench probably depend on its function. 30% of the benches had a N-S 10° orientation, followed by N-S (17.9%) and N-S 5° (16.8%). A few benches were oriented to the E-W axis (Figure 51). From the data, it could be seen that most of the benches were placed on the sides (41%) or in the back (54.6%) of rooms. The benches located in the back of rooms could have a civic, ceremonial, and political function (37 cases); meanwhile, the benches placed on the sides could have been used more for residential purposes (11 cases). Even though the differences in function through the locality of the benches in the rooms are not significant from the analysed corpus. For the evaluation of the height of the benches, the author selected three measures: low benches (less than 30 cm), middle benches (50 cm), and high benches (more than 60 cm). What comes out from the sample is that the benches had a predominant height of 50 cm, which was almost 70% of the sample (Figure 52). The low-level benches comprised 17.9% of the sample and were seen in palaces, temazcal, temples, and residences. High benches present in residences, palaces, and range structures represent 12.2% of the sample.



Bench orientation from the sample

Bench height from the sample

Figures 51 and 52: Graph bench orientation and graph of bench height from the sample

Moreover, the benches could have been time and space-dependent. Every site has a multitude of benches. However, the sites of Tulum, Xpujil, Mayapan, and Uxmal have the greatest variety in forms. C-shaped benches were only present in the Petén region (Aguateca) and the Motagua region (Copan). Temporally, from the sample, we can deduce that there could be a more diversified use of the bench form during the Late Classic and Postclassic period. Every type of bench form was present in primary and secondary sites, except the C-shaped benches that were only available in primary sites. Assuming that the C-benches were used for officials' meetings, it is expected that they would be found in cities that were more involved in decision-making processes, such as the primary sites.

Through the literature and the sample, we can suppose that the benches:

- Had different forms, heights, and uses
- Could be present in various multifunctional structures
- Could have been ornamented
- Were mostly following a N-S orientation
- Were possibly time and space-dependent

(6) Within the stone-walled buildings, some wall openings can appear (Annex 1.3).

During her fieldwork within the sites, the author defined three different types. First,

the shrine is located on the back side of the construction; a kind of small bench or altar is enclosed with low walls (Inomata 2008: 161). The shrines were mainly present in high-status constructions such as palaces, council houses, residences, temples, colonnaded halls, and acropolis. They were seen in every site except in Altun Ha and Joya de Ceren. This absence of a shrine can be due to the limited building sample taken from these sites and their non-preservation. A shrine was probably a place for ancestor or gods worship (Milbrath et al. 2003: 9; Welsch 1988: 188). They could take place in civic-ceremonial spaces, but also in more private ones. The shrine's architecture expresses the community's social imagination and memory (Ardren 2015: 53 and 75).

Second, the niches were also placed within the walls or, in some cases, below the benches. There were some openings on the walls that would have contained some objects such as figurines, ceramics, ritual paraphernalia, etc. The niches appeared in temples, palaces, and residences (Hohmann 1995: 157 and 197). Their role was probably to hold ritual objects for public and private ceremonies or the artefacts of the artisans. In the sample, the niches were not present at every site, which could show a limitation of the available data.

Third, we can have some ventilation. A vent is “an opening that runs through a wall, and that because of its shape and or small size is not likely to have served as a window” (cited by Loten et al. 1984: 15). They were present in various structures such as palaces, temples, temazcal, ballcourts, and residences. Their exact function is not known yet. However, these openings could let out the humidity and smoke of domestic rituals and create air circulation. From the sample, we can see that not every site had such ventilation. Their presence was seen in Chichen Itza, Tulum, Oxkintok, Tonina, Palenque, Quirigua, and Uaxactun.

Through the sample analysis, we can suppose that the wall openings:

- could be shrines used for the worship of gods or ancestors
- could be niches to contain ritual paraphernalia or daily used artefacts
- could be ventilation to create a circulation of air against humidity and smoke

4.2) Domestic structures

Within a Maya city, the domestic area was the most extensive (Nichols 2012: 687). A domestic space is a “physical embodiment of the cultural order and primary locus for a communicative activity” (cited by Hanks 1990: 314). The structures qualified as domestic encompasses buildings and open spaces with differing functions such as storage, water reservoirs, workshops, gardens, pathways, and sleeping areas (Goldsmith 2006: 2; Ardren 2002: 55). The households were the basic functional and socio-economic unit of the sites (Bazy 2013: 8 and 10; Ashmore 1981). In this part, we will deal with the households, the water management, the workshops, the kitchen, and the platforms. The remaining structures will be excluded due to a lack of evidence and visibility in the sites under study.

4.2.1) Household

The first domestic structure that will be analysed is the household. Household archaeology is a field that investigates the household units of a city and tries to understand its mechanisms at the unit level and a broader community and social level (Goldsmith 2006: 17; Ardren 2002: 52). The term household can be controversial, but in the following lines, we will analyse its characteristics. Households have a central patio where the different residential structures are disposed around (Nichols 2012: 685). The house was placed on a platform (Houston 1998: 165). Residences made of stone and including vaults were seen as pertaining to high-status families (Awe et al. 2010: 8; Nichols 2012: 687; archive Campeche Benavides Proyecto Edzna 1988: 14). A lot of attention was placed into the decoration and sculpture of the residences because it reflected the “status of the people living there” (cited by Arnould 2013: 482). Simple households were circular in form, whereas the complex and elaborate ones surrounded a patio (Manzanilla 1987: 27f.; Archive Campeche Edzna 1997: 4). Quadrangles could have been used as residences of the elite or royal elite, where they could receive people into their courtyards (Ardren 2015: 27). They could be shaped as a range structure (Inomata 2008: 160).

Moreover, a household is composed of different assemblages of structures, such as a structure for sleeping, eating, and practicing activities, one for storage, and one for the kitchen (Sheets 2000: 223; Scott et al. 2020: 392). We will focus on these other structures in the following pages. In a household compound, the east structure can be connected to a non-domestic function, such as ceremonial or ritual activities. Some rituals could have been practiced daily and in private spaces in lower-status residences (Ardren 2015: 24 and 30). In the Río Bec region, the land was exploited for agriculture. The spatial expansion of the cities could cause less agricultural activity, leading to the construction of big multileveled houses as residences (Arnauld 2014: 122; Arnauld 2014: 108 and 115). Therefore, it could have been seen in various sites that the more the population of the site grew, the more the available residential space within the household diminished. The distances between the different households or core areas remain unchanged (Marken et al. 2023).

Residences were composed of one to six rooms (Kievit 2008: 203). A tripartite room layout was a common form within the house. The middle room was slightly bigger to receive the visitors. The two side rooms could have been used as domestic units (Christie 2003: 295). Reception rooms were large and in close proximity to the private rooms of the residents. The visitors might have been important people to the residents, so they needed to treat them as if they were part of the house (Arnauld 2013: 485). Domestic rituals were practiced in the residences for the deceased of the family and for the welfare of its members. In addition, the domestic buildings were seen as animated beings. A ritual for the animation and termination of the life of the house was used (Nichols 2012: 690). Some residential compounds could house a sweat bath (Manzanilla 2009: 75). Within a house, the floor levels could have been more or less elevated to mark a hierarchy between their residents (Arnauld 2013: 479).

The household inhabitants were buried in the patio and the house's floor. Burials were placed in the households under benches (Goudiaby et al. 2020: 35) or on passageways between two rooms (ibid.: 45). This practice modified the circulation of the inhabitants that could no longer pass this certain way because of the burial (ibid.: 47). The ancestors were protecting the living ones, and they could also through them claim the legitimacy of the territory (Scott et al. 2020: 396). Through

the grave, they have the right to claim the monopoly of the terrain (Scherer 2015: 175).

Households were not always located in the core area. They could have their house around this focal area, as seen in Chichen Itza and its Great Plaza (Boot 2005: 435). In Caracol, for example, households were located near the core area of the city or along road systems (Chase et al. 2017: 222). Households located spatially in close proximity to ceremonial structures can reflect a ritual activity relationship (Ardren 2002: 66).

The rebuilding over previous structures was a strategy to use less construction material and less time-consuming. Additionally, people were linked to their territory and to the social identity of the place where their ancestors might have lived (Alonso Olvera 2013: 11). Elite houses were more likely to be rebuilt over pre-existing structures than commoner houses (Manzanilla 2009: 115).

The way the rooms were partitioned and the presence of inner courtyards are testimonies of segregation and privacy (Arnauld 2013: 477). Boundary walls of stone permit to delimit the city's core area or sacred space (Ardren 2015: 29). Quadrangles were used during population growth and as a means of defence and privacy (Arnauld 2013: 477). Access to quadrangles was restricted to the highest social class of the society (Ardren 2015: 25).

The residences present in the visited sites by the author will be analysed (Annex 1.4). The location of the household is biased due to the availability of only elite and stone households located within the core area. Structures made of perishable materials located outside the core area are excluded from this study due to their difficult discovery and non-accessibility for the author. As we could see from the previous lines, they encompassed a large array of activities. Indeed, individuals could live in independent houses, household compounds, palaces, and rooms placed within other structures, such as temples (maybe for the temple keepers). The shape of the residences could be rectangular, oval, square, L-shaped, U-shaped, I-shaped, or T-shaped (Figure 53). The rectangular form is the one that was mainly used, with 75.9% of the sample. Square (6.5%) and L-shaped (11.8%) houses were not uncommon in the sample.

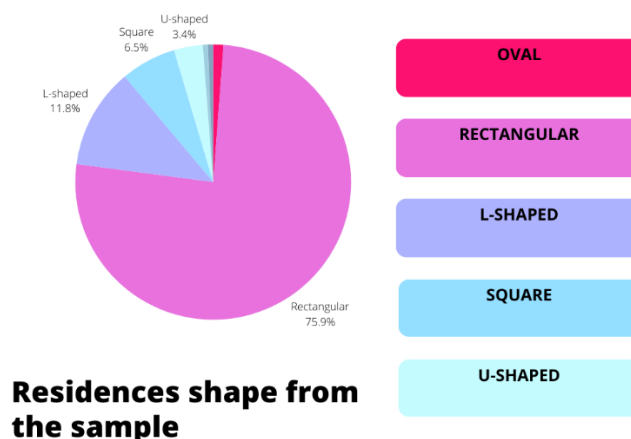
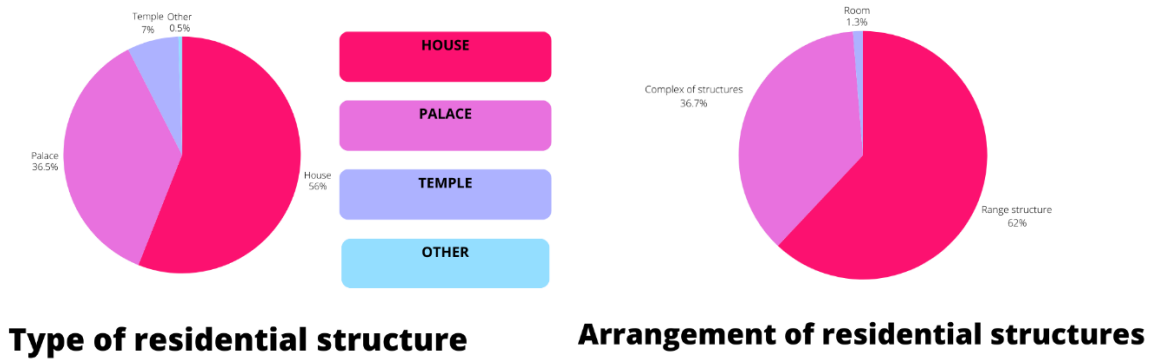


Figure 53: Graph residence shape from the sample

The type of buildings used as residences present in the core area were mainly houses and palaces, each making 56% and 36.5% of the sample (Figure 54). Rooms located in the temples or their vicinity could have served the temple keeper and their family. In the sample, this could have been the case for 7% of the cases (Figure 54). Only a few pieces of information about the temple keeper were found by the author. We can deduce that the royal elite and the high elite mainly inhabited the centre of the city. Moreover, palaces and houses could have been placed independently in the site's core area in the form of range structures (long, independent, and not connected directly to other structures). When the inhabitants lived in a household compound, the author defined it as a complex of structures. Individual range structures were mainly present in 62% of the sample, and the complex of structures made up 36.7% of the sample (Figure 55). What is also interesting is that some cities were using one or the other type of residential construction system. For example, in Lamanai, Caracol, Xunantunich, Yaxha, Tikal, Copan, Quirigua, Tonina, Uxmal, Calakmul, and Kohunlich, the households were mostly built within a compound. In contrast, the households in Coba, Tulum, Xpujil, Mayapan, Kabah, Yaxchilan, Aguateca, Joya de Ceren, and Altun Ha were mainly located in independent range structures. This distribution is not dependent on the size or rank of the city in question. However, we can suppose that the construction of household compounds was more common in primary sites than secondary sites due to the number of inhabitants who belonged to the elite classes.



Figures 54 and 55: Graph type of residential structure and arrangement of residential structures

In addition, most of the residences were visible from the next open space. The access was not restricted to the elite residences, even if some of them were spatially segregated and probably pertained to the highest social classes. Access to the palaces and the rooms of the temples was restricted to the majority of the inhabitants. Temples and palaces were seen as having an important function within the community. This could be verified by the presence of decoration on the façades. The more the façades were elaborated, the more their function was decisive. From the sample, we can see that the temples always had some decorations. The palaces also had decoration in most cases. However, some of them don't. This could be due to the rank of the cities they are located in (if they were primary or secondary sites). Residences were mainly not showing any elaborate façades. Only a few of them did and should belong to the highest elite.

Due to the planning and organisation of the cities, the residences must have been placed and oriented in function of a defined scheme (Figure 56). From the sample, 35.7% of the residences had a N-S 10° orientation. The other 13.5% were oriented at an N-S 5°. Therefore, we can say that 2/3 of the residences were oriented following a north-south axis, while 1/3 were following an east-west axis.

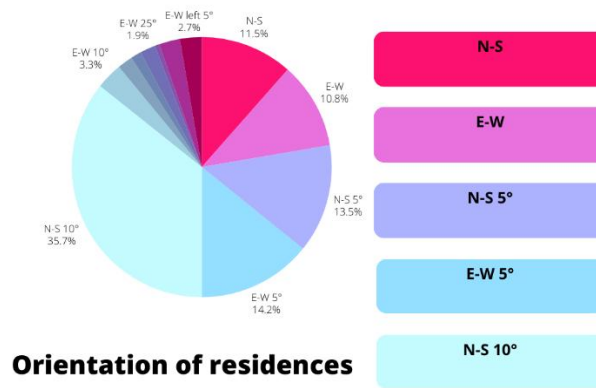


Figure 56: Graph orientation of residences

Through the literature and the sample, we can suppose that the residences:

- Could have been built in different shapes (the majority in a rectangular shape)
- Were mainly oriented on a north-south axis
- With important functions were decorated, and their access was restricted
- Were mostly individual range structures or household
- Types could depend on the size of the city
- Made of stone were pertaining to the elite from the core area, whereas the perishable residences were for the commoners, which were present most of the time at the periphery
- Constructed within a household had various structures for different purposes
- Were composed of various rooms that served different purposes
- Could have been overbuilt
- Were places where ancestors were buried for protection and legitimisation of the terrain

4.2.2) Water management

The water management was essential for the inhabitants of a household. They could manage this resource by constructing chultunes, aguadas, and canals (Seefeld 2017: 103; Archive UAC Hidraulico Calakmul). The majority of the chultunes were located near household compounds (Gallareta Negron 2013: 180). For example, in Labna, the house of columns was a domestic, L-shaped structure whose water reservoir was located on the backside of the compound's platform (ibid.: 253). Not every residence or household compound had access to a chultun. We can suppose

that the water storage and reservoir were shared among different families and households (Wurzburg 1991: 140).

From the sample of the data recollected by the author, the different sites under study had different strategies to manage water supplies (Annex 1.5). In total, six water resources could be identified, and they could be put into two categories: natural and artificial. On the one hand, the site could have been settled near natural water reservoirs such as the sea, as is the case for Tulum and Quirigua. These two cities used the sea for food and maybe water (if no other source had been available). Then, we can have the presence of a lake like in the sites of Coba, Calakmul, Quirigua, and Yaxha. Cenotes were another type of natural water reservoir made from underground holes that were filled with drinkable water. These cenotes were only present in the Yucatan Peninsula. At some sites, the cenotes could have been found at the periphery of the cities (Tulum, Ek Balam, Yaxuna, Coba, Oxkintok), or they could have played a central role in the cities and been placed into the core area (Dzibilchaltun, Mayapan, Chichen Itza, Tulum). A cenote could have the purpose of catching water for the daily water supply of the city, or it could have been used as a sacred place for rituals, such as the Cenote Sagrado in Chichen Itza, where a multitude of human remains and artefacts were found. Finally, the presence of rivers could supply a community with water. The rivers were mostly passing through the Southern Lowlands near the sites of Tonina, Palenque, Copan, Quirigua, Yaxchilan, Xunantunich, Lamanai, Aguateca, and Seibal. Their additional purpose could have been as a means of transportation from one city to another, and also as a food supply.

On the other hand, the water reservoirs could have been built artificially. This is the case for the aguadas. The aguada is a man-made water reservoir containing a large amount of water for the community's supply. They appeared in the sample only in primary sites such as Calakmul, Edzna, Tikal, Uaxactun, Xunantunich, and Caracol. These sites had more than one aguada, which were dispersed around the city. However, the cities under study had enough water supply located nearby. It could happen that an aguada could be present for other smaller sites. The demand for water supply must have been so high that they put a collective effort into building these aguadas. The location of aguadas was near high elite residences, palaces, causeways, and acropolis. From the sample, we could deduce that the

aguadas were reserved for the higher social classes of the community, but they did not exclusively use them. The whole community could recollect water from it. Chultunes can be defined as small water reservoirs that supply the household compound with water. The chultunes were present in every visited site (mainly in the Puuc region), even though for some regions, it could have been used as a storage space. They are mostly located near or within residences, palaces, temples, and council houses. Their accessibility is easy and not restricted to a social class. Some C-shaped reservoirs could also have been used to catch the rainwater. They were placed near the buildings of various functions. For example, the acropolis of Ek Balam had many of them (Seefeld 2017: 253). In addition, some natural water resources could have been diverted from their normal course to the cities through aqueducts and drainage systems. The remains of the aqueducts were found in Palenque and Copan. The drainage system was discovered at the sites of Chichen Itza, Tonina, Palenque, Copan, and Quirigua. Moreover, some causeways could have a dam function for irrigation. They could be seen in Copan and Coba until now (Seefeld 2017: 172). Most of the sites used two water management strategies (58% of the sample) (Figure 57). The utilisation of more strategies was also possible (three types made 19.4% of the sample; four types made 6.5%; and five types made 3.2%) (Seefeld 2017: 443). “Each hydraulic feature was always highly adapted to the very specific condition of the particular local landscape” (cited by Seefeld 2017: 441).

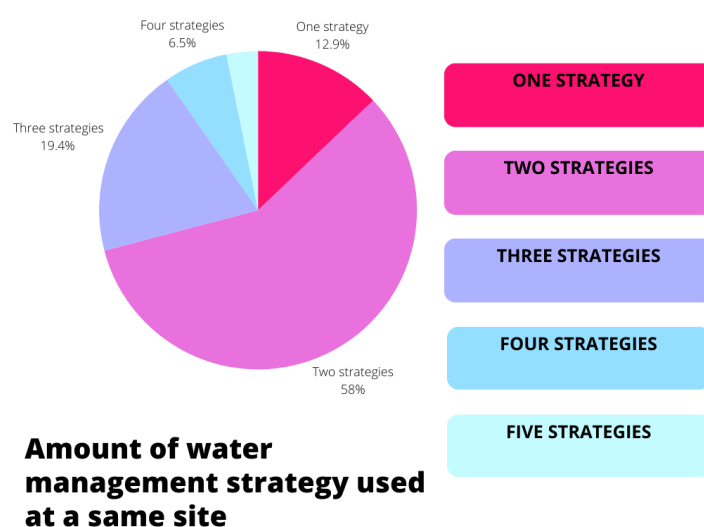


Figure 57: Graph amount of water management strategy used at the same site

Through the literature and the sample recollection, we can suppose that:

- Water reservoirs could have been natural or artificial
- The water supply depended on the environment
- The type of water reservoir depended on the size of the city and the social class
- The location of these water reservoirs could have been in the surrounding area, at the periphery, or within the core area of the site
- Mostly, two water management strategies were used

4.2.3) Workshop

The second domestic structure under analysis is the workshop. Workshops occurred within households (Awe et al. 2007: 162). The residents could have crafted some goods and tools that gave their identity and value to the community (Arnauld 2013: 472). For a family, the household was the fundamental source of the society's economy (Manzanilla 2009: 67; Masson et al. 2002: 372). “Residential spaces were polyvalent” (cited by Alonso Olvera 2013: 271) and were differentiated through their functionality (Eberl 2014: 316). The household is a space for the execution of various production areas (Alonso Olvera 2013: 55). The activities were gender-specific (Ardren 2015: 143; Nichols 2012: 689). This theme will be seen in Section 3.

The craft production could have different locations. For example, if the production was for daily activities and life, it would occur within the household. If the production was specialised and required more people and space, the workshop could have been located at the periphery of the city's core area (Manzanilla 2009: 31). The shape and width of rooms can indicate their possible function. For example, small one-room buildings could have been used as storage places (Arnauld 2013: 481; Kievit 2008: 203). Also, small independent one-room buildings could have been used as workshops (Emery et al. 2007: 84). The household activities and social ties that appeared in this sphere also had an impact on the political and public space of the society (Ardren 2015: 45). The spatial proximity of the household compounds and the shared activities and identity enabled people to interact together and to belief in similar subjects (Canuto et al. 2000: 130f.).

4.2.4) Kitchen

Ancillary structures and the kitchen were located on a low platform and were constructed with perishable materials (Hendon 1990: 528). The kitchen can be built with posts made of wood. Archaeologically, the postholes remain (Willey 1975-1990: 190). Small one-room structures without the presence of benches could serve as kitchens (Inomata 2008: 128 and 166). The shape of the kitchen can be unusual. For example, the kitchen discovered in Joya de Ceren is round and has a small entrance (Webster et al. 1997: 53). The kitchen was mostly located near the main house of the residential compound and opened towards the courtyard or patio (Hanks 1990: 329; Manzanilla 1987: 56; Webster et al. 1997: 52). Three locations were used for the kitchen. On the one hand, kitchens could have no defined room within the household. For example, the front porch of a house could be used as a cooking area (Willey 1975-1990: 274). On the other hand, the kitchen can be included in a room of a range structure or separated as a special independent structure within the residential compound (Hanks 1990: 322; Wurzburg 1991: 203; Willey 1975-1990: 242). Therefore, the kitchen represents an asymmetry in the house partition due to its different shape and gendered activities (Hillier et al. 1984: 159). In Caracol, individuals from different social statuses had different diets. We can hypothesise that centralised kitchens were used to prepare goods for the various social categories (Chase et al. 2017: 210). Some evidence showed that servants or slaves could have lived and slept within the kitchen structure (Willey 1975-1990: 244). In addition, in the Río Bec region, the excavation permitted us to find out that more than one household used the same kitchen. This means that the kitchens were shared by a collective of individuals (Arnauld 2014: 115).

4.2.5) Platforms

Platforms within households can be used for various purposes, two of which will be exposed here. On the one hand, they could have been used as workshop and crafting areas (Hohmann 1995: 28). On the other hand, low platforms could be used as a base for a later construction (Hohmann 1995:46; Alonso Olvera 2013: 8; Wyllys Andrews 1980: 301; Loten et al. 1984: 5; Morton 2007: 72). The

superstructure could be made of stone or perishable material (Hohmann 1995: 104; Wurzburg 1991: 173). Furthermore, the platform can be an indicator of social status. The higher the height of the dwelling was, the more the inhabitants enjoyed some wealth conditions in the society (Willey 1975-1990: 331; Hendon 1990; De Pierrebourg et al. 2014: 41).

4.3) Non-domestic structures

After analysing the domestic structures, we will deal with the non-domestic ones. The city centre was mostly the location of non-domestic structures. In contrast, the periphery was composed of domestic structures (Hammond 1975: 39). Non-domestic structures encompass the ceremonial structures, sweat baths, and communal infrastructure (Ardren 2002: 57), but also residential construction for the ruling family (Robin 2012: 114). In some sites, an E-group construction assemblage was present. It served different purposes, such as ceremonial, astronomical, and ancestral (ibid.: 116).

Structures with public functionality were linked to open plazas (Nichols 2012: 709; Ardren 2002: 57). Courts were mostly present in an acropolis-type construction (Andrews 1988: 130). If the visitor enters a plaza from the corner, he won't be impressed by the space, whereas if he enters from the front, he will be subjugated by the powerful spatial organisation of the place (Peiró 2015: 350). Moreover, if a façade was richly decorated, we can assume that the structure had an important function and value for the community (Gallareta Negron 2013: 314). For example, the *cresteria* is an architectural feature that appears on the exterior top façade of buildings, mostly seen atop non-domestic buildings (Quintana et al. 2001: 153).

For the non-domestic structures, the author decided to investigate the oval structures, whose function was unknown, the ceremonial, civic, and political structures, and finally, the economic areas.

Oval structures are non-domestic structures located in the city centre near some ceremonial and civic structures (Annex 1.6). From the sample, 1/3 of the sites

visited had the presence of this kind of structure. Oval structures were only available in the Yucatan Peninsula. Half of them had decorations remaining on their façades. In addition, the orientation of these structures followed a north-south axis. The function of the oval structures is not well-known yet. They could have been used for astronomy as observatories, special rituals as temples, or political places for decision-making processes.

4.3.1) Ceremonial structures

In this chapter, we will focus on the ceremonial structures. They will encompass three types of buildings and architectural features: (1) temples, (2) labyrinths, and (3) E groups. Ceremonial structures embodied the social beliefs of the society. Their construction was planned and organised in advance rather than hazardedly built (Awe et al. 2006: 177).

- (1) The temples were the houses of the gods and were seen as a model of the cosmos (Houston 1998: 428f.). Indeed, they symbolised the sacred mountain that was believed to be the centre of the universe for the Maya (Schele et al. 1998: 17; Matos Moctezuma et al. 2010: 28; Sonderegger 2003: 14). The upper *cresteria* could be the metaphor of heaven (Sonderegger 2003: 14). Moreover, individuals from the highest social classes were buried within ceremonial structures (Misión arqueología de España 1990: 15f. and 44; Misión arqueología de España 1991: 49f.). Therefore, temples could have been the place of birth of the ancestors who would legitimise the rulership and the space as sacred (Breton et al. 2003: 51). It can also happen that pyramid-temples were placed over caves or sacred locations. Their orientation followed the rising and setting solar movement (Matos Moctezuma et al. 2010: 33).

Temples are the highest constructions of a city, and they can be seen as a mirador. For example, the pyramid of Structure 2 at Calakmul is one of the highest constructions in the Mayan world (Andrews 1997: 33). Temples have a central location within the city or the residential compound (Hohmann 1995: 46; Rivera Dorado 1995: 31). It was also the centre of life for the community (Matos Moctezuma et al. 2010: 28). They are generally located next to palaces, plazas,

and marketplaces (Lucero 2007: 410). Most of the temples were located in front of big plaza for enacting ceremonies in front of a maximum number of people (Andrews 1995: 12; Bazy 2013: 20; Inomata 2008: 79). The access to the temples was accessible through a high platform with a monumental stair made by high steps (Hohmann 1995: 60; Archive UAC Zapata Structure 1 Calakmul; Wyllys Andrews 1980: 302; Matos Moctezuma et al.: 32). They can be considered as the most restricted non-domestic buildings (Schele et al. 1998: 29). The stairways of a temple could be oriented through the cardinal directions. For example, Structure 1 of Calakmul had four stairways corresponding to the orientation of the four cardinal directions (Carrasco Vargas et al. 2005: 46).

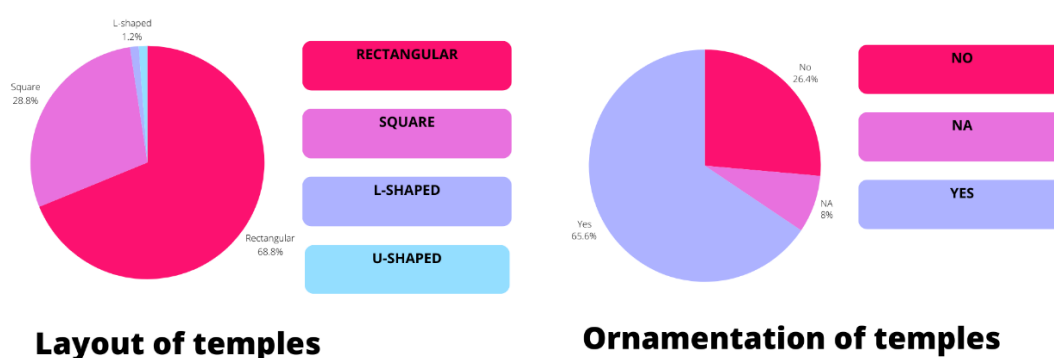
The temple is the symbol of the community's identity and its beliefs. They were high constructions and could have been seen by everyone (Lucero 2007: 409). A temple is constructed in such a way that each one is unique. No temple will look like another one (*ibid.*: 410). This could be due to their richly decorated façades (Coe 1976: 36). In most cases, they have a rectangular plan. Their platform decreases in mass surface with the altitude to provide a place for a temple on top (Stone et al. 2011: 38). Temples can be shaped in an unusual way. For example, Structure 7 of Calakmul is a temple with a T-shape arrangement (Archive UAC, Rosario y Gallegos Structure 7 Calakmul: n.d.). Furthermore, not every city had a temple *per se*. For example, in the Río Bec area, no pyramids or temples were present during its apogee. Instead, they constructed high towers with false stairways as an optical illusion (Arnauld 2014: 108).

Temples could play a role in ceremonies, feasts, offerings, and exchange of goods (Lucero 2007: 407; Loten 1988: 18). These activities could be seen as a collective practice from the whole community (Hillier et al. 1984: 248). Temples are mainly composed of one or two rooms, and they can contain some benches (Morton 2007: 75; Quintana et al. 2001: 148; Andrews 1981: 20; Parmington 2011: 11). The different levels of a pyramid can be used for various functions. For example, Structure 1 of Calakmul was a pyramid with a temple on top. However, the ground floor level room was used as a residence (Archive UAC, Informacion 14). Structure 2 in Calakmul is multifunctional. Indeed, it is a high pyramid containing a palace, a *temazcal*, and tombs (Archive UAC, Informacion 16

1993/94). The multifunctionality of the temples does not enable us to distinguish the gendered space (Ardren 2015: 143).

From the sample recollected by the author, we can say that the temples were almost present in every site, independently of the period or region (Annex 1.7). They were located in the core area in proximity to palaces, ballcourts, other ceremonial structures, marketplaces, residences, cenotes, quadrangles, civic structures, council structures, acropolis, sweat baths, and open spaces. Therefore, the function of the temples could have been ritual (practice of ceremonies), political (representation of power of the community), astronomical (if used as an observatory), funeral (presence of royal elite burials), and residential (house of gods and temple keeper). As we could have seen in the earlier pages, access to the temples in the domestic or communal area was restricted and, in most cases, segregated.

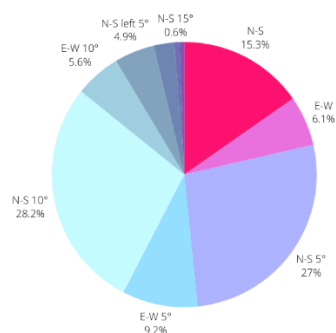
The form of the pyramid-temple was mostly rectangular (68.8%) or square (28.8%) (Figure 58). Moreover, in 65.4% of the cases, the temples analysed within the sample were decorated or sculpted (Figure 59). Most ornate temples came from primary centres. However, some sculptures could have been destroyed and are no longer visible.



Figures 58 and 59: Graph layout of temples and ornamentation of temples

The orientation of the pyramid-temples is in the majority, following a north-south axis (76% of the sample), where the movement of the sun, moon, and Venus could be seen on their sides (Figure 60). The construction of the temple itself could symbolise the zenith. However, 24% of the pyramid temples have an east-west axis.

They could embody the celestial movement and their rebirth. For example, the temples with this orientation could have been major temples flanked by glyphic stairways to glorify the power of the ruler and the city. Also, they could be dedicated to Venus or the cardinal direction, such as East Temple or Red Temple (red being the colour for the East). The Warrior Temple in Mayapan was also placed on an east-west axis. This could be a metaphor for the importance of the star's arrangement before heading to war. Even if the names of the temples might have been given randomly or after their sculptural characteristics by the investigators, meaning can be read from them.



Orientation of the temples from the sample

Figure 60: Graph orientation of the temples from the sample

Through the literature and the data recollected, we can deduce that the temples:

- Were seen as the cosmic and sacred mountain
- Were the houses of the gods and ancestors
- Had a focal position within the city and were visible to everyone
- Were located near wide open spaces to welcome a great part of the community during public events
- Had the most restricted access
- Were, in most cases, ornamented
- Had a rectangular or square shape
- Were composed of one or two rooms
- Had a multifunctional purpose, but mainly they were used for ceremonial functions

- Followed the movement of the celestial bodies and, therefore, had mainly a north-south orientation

(2) The Labyrinth is another type of ceremonial structure. They were composed of various small rooms, benches, and narrow corridors (Andrews 1991: 21). In Oxkintok, a structure was built as a labyrinth called Satunsat that functioned as a rite de passage or as a place where underworld ceremonies took place (Misión Arqueología de España 1989: 19f.). The access to the Satunsat was restricted to the priest and the ruling elite, which gave this structure a symbology of power (Misión Arqueología de España 1991: 96).

From the recollected data, few labyrinth structures were found (Annex 1.8). Six sites (Oxkintok, Edzna, Palenque, Tonina, Uaxactun, and Yaxchilan) from the 29 had the presence of a labyrinth. Every single structure was located within the core area and was visible. They were rectangular and composed of various rooms with benches, vaults, and narrow corridors, and the floor had different levels. The building was placed in almost complete darkness, even during daylight. The Satunsat in Oxkintok contained the burials of some rulers. In addition, 3/4 had a north-south orientation, and the same ones had some façade ornamentation. Due to the scarcity of this type of structure, we can ask ourselves why it was present in these sites and not in others. Could these six sites have a special duty that was only present there? It might not depend on the rank of the cities; from the sample, two were primary, and the other two were secondary. Could there be more labyrinth structures, but they were not seen or defined as such? Is the sample too limited? All these questions remain unanswered.

Through the literature and the data, we can suppose that the labyrinth structures:

- Had a ceremonial and political function
- Had a special shape and room partition
- Were oriented following a north-south axis
- Were ornamented
- Were located in core areas
- Were rarely present, and their exact meaning is yet unknown

- (3) E groups are a temple arrangement in a T-shape in front of a row of three temples or a range structure. Their function could be ceremonial and/or astronomical. For example, Structure 4 in Calakmul can be considered an E group (Archive UAC, Informacion 16 1993/94).

4.3.2) Civic structures

After the ceremonial structures, we will focus on the civic ones. The civic buildings were essential to create the “material expression of the moral order of the society” (cited by Nichols 2012: 715). They count as one of the most significant constructions (in m² of surface on the ground) of a site (Sheets et al. 1990: 86). Within the category of civic structures, we can analyse four different kinds of buildings: (1) the gallery-type structures, (2) the men’s house, (3) the ballcourt, and (4) the *temazcal*.

- (1) Communal buildings are on larger platforms than households near central open spaces and political structures (Kievit 2008: 199). They were long gallery-type structures with many entrances and could probably be used for civic purposes, as we can see in Dzibilchaltun with Structure 44 (Andrews 1991: 6). Another example would be the Nohochna in Edzna. It was a long-range structure with many entrances. Its function could have been for administrative purposes and storage (Archive Campeche Benavides Proyecto Edzna 1997: 11). Mostly, the structures with columns might have functioned as meeting or administrative spaces (Inomata 2010: 23; Arnauld 2001).
- (2) The men’s house can be defined as a homosocial place where only men can meet and live together (Houston 2018: 119). Indeed, the elite unmarried men lived together until they married a woman in a building called a men’s house (ibid.: 23). This house showed the men’s ideals and power to society. That is why it can be found in the core areas of the cities (Houston 2018: 118; Ardren 2015: 129). The façade of the men’s house was probably sculpted with phalli symbolism (Houston 2018: 124). Architecturally, these houses were large and open to welcome a lot of people (Landa 1959: 61). They were also composed of many entryways and doors

and were spatially located near the ball game field and temples (Ardren 2015: 130). In Mayapan, the colonnaded halls could have been the men's house or a residence for the pilgrims (Milbrath et al. 2003: 9; Andrews 1997: 104). In some cases, the men's house could have been located in palaces or structures made of colonnaded halls (Houston 2018: 124). After Houston's assumption, it would not be easy to distinguish between the administrative structures and the men's house due to their similar architectural features.

From the sample, the presence of columns in some buildings was categorised into two types: round and square (Annex 1.9). On the one hand, the round columns appeared in temples, palaces, cabezales of ballcourts, platforms, residences, acropolises, and colonnaded halls. Even if they could appear in various building types, their presence was scarce. Of the 64 round columns from the data, only 14.1% were richly decorated (stuccoed, sculpted, or painted). Decorated columns might have been reserved for the important public buildings of the community, such as temples, palaces, colonnaded halls, and ballcourts. Moreover, the geographical and temporal use was limited. Indeed, from the sample, we can deduce that not every region used round columns. They were present in the following regions: Chenes, Puuc, Oriental Coast, and Maya Tolteca. Temporally, they appeared mostly during the Late Classic and Postclassic period.

On the other hand, the square columns appeared in palaces, temples, cabezales of ballcourts, residences, administrative structures, colonnaded halls, quadrangles, and acropolises. This type of column was slightly more numerous than the other one. Of the 97 square columns of the data, 12.4% were decorated. Decorated columns were only present in palaces, temples, and ballcourts. In addition, square columns were geographically and temporally more widespread than round columns. They were present in every region except in the Petén area. Temporally, they were used from the Middle Classic to the Postclassic period.

We can deduce that buildings with columns (round or square) mainly pertain to non-domestic structures, such as the men's house. As can be seen from the sample, some palaces and temples were flanked by columns. Could they have some space for the presence of a men's house within their spatial organisation?

Through the literature and the recollection of data, we can suppose that the men's house:

- Was a homosocial space for unmarried elite men
- Was symbolising the masculine and communal power
- Was located in the core area near temples and ballcourts
- Was mostly a large structure with columns (colonnaded halls or structures with columns)
- With round columns, it was time and space-dependent. Meanwhile, the square columns were more widely used.

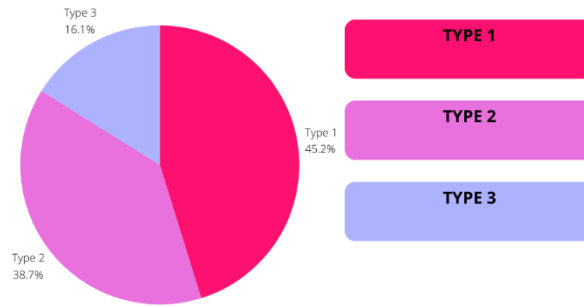
Further ideas for reflection can be found by Becker in his book entitled *Houselots at Tikal Guatemala: it's what's out back that counts*. During his investigations, he could discover the existence of menstruation huts. These structures were built for women living there during their menstruation period (Becker 2001: 438). We can ask ourselves if this kind of building could have been a parallel to the men's house. Were these women's houses also constructed in a colonnaded-type structure, or were they only made of perishable material? Could it be possible that we take all the colonnaded halls for men's houses instead of maybe a women's house? Could elite women inhabit these houses before marriage, or could it serve as a rite de passage from childhood to adulthood for the women? All these questions and doubts remain unanswered.

- (3) Ballcourts were, in a high number of cases, in an I shape, with stairs leading to a kind of stands made of some benches for the spectators (Willey 1975-1990: 157). They were located near a plaza (Morton 2007: 74; Willey 1975-1990: 77). Ball games were used to negotiate issues between elite families or between kings, but also to perform some rituals and competitions (Ardren 2015: 128; Houk 2015: 246). It could also symbolise the rebirth of the kingdom (Scherer 2015: 209). They were not present at every site. For example, in the Río Bec area, only rare ballcourts were found, except for the eponymous site where three ballcourts were discovered. Thus, the rarity of ballcourts is the specificity of the region (Arnauld 2014: 108).

In addition, the ballcourts had an underworld symbolism (Sondereguer 2003: 14; Scherer 2015: 213), and it was “linked to the vertical axis of the world” (cited by Gamez Diaz 2013: 93). Indeed, the core area of a site has mainly a north-south axis in which the northern and southern part were complementary in their function. The ball game fields are located near the central axis of the city. The sunken alleys connected and mirrored the underworld and the celestial realm (Breton et al. 2003: 84; Webster 1997: 227; Gamez Diaz 2013: 50; Rivera Dorado 1995: 35). Therefore, the orientation of a ballcourt was mostly in a north-south axis or with a deviation from 5 to 17° (Houk 2015: 247; Parmington 2011: 8; Houk 2015: 37).

From the sample recollected by the author, we can deduce that not every site had the presence of a ballcourt (Annex 1.10). Sites such as Tulum, Dzibanche, Xpujil, Mayapan, Labna, Kabah, Dzibilchaltun, and Bonampak no ballcourt was found. This absence can be seen mainly in the Yucatan Peninsula and secondary sites.

The author categorised the ballcourts into three different types (Figure 61). Type 1 corresponds to an open field without benches for spectators. Type 2 could be opened with some benches, semi-opened with benches, and closed with benches and one cabezal. Type 3 was closed with cabezales and contained benches. From the sample, 45.2% pertained to the type 1 and 38.7% to the type 2. We can say that the majority of the ballcourts were opened or semi-opened and contained benches. Type 3 ballcourts were available only in Chichen Itza, Tikal, and Tonina. These three cities were big centres, war active, and famous for their captive imagery. Ballcourts should have played a more important role for them than at the other sites.

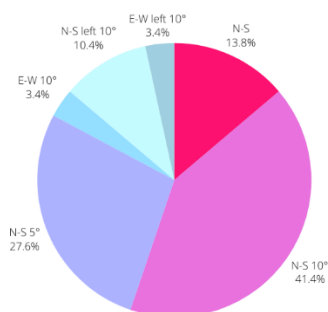


Ballcourt types from the sample

Figure 61: Graph ballcourt types from the sample

Moreover, we could see that some ballcourts were more or less open. This means that their access could have been restricted. They were generally located in the core area near palaces, the acropolis, temples, and main plazas. Once the person had access to the plaza, accessing the field was no more complicated. Ballcourts were mostly visible to the people evolving within the city centre. These people could have been mainly elite members.

The orientation of the ballcourts was in 92.3% of the sample, following a north-south axis (Figure 62). Only Quirigua and Tonina have an east-west orientation. This could be due to their geographical location in the periphery of the Lowlands. They could have been influenced by other beliefs and symbology from the Highlands or the non-Maya territory.



Ballcourts orientation

Figure 62: Graph ballcourts orientation

Arrows and markers were features that could have been present in the ballcourt. Nine sites used an arrow, such as Chichen Itza, Coba, Uxmal, Oxkintok, Edzna, Xunantunich, Caracol, and Lamanai. These were located in Belize and the Yucatan Peninsula. Markers were present at ten sites, including Yaxuna, Chichen Itza, Coba, Tonina, Yaxchilan, Caracol, and Lamanai. As we can notice, not every site with arrows also had markers, and *vice versa*. Only four sites had both (Chichen Itza, Coba, Caracol, Lamanai). Markers were geographically more widespread than the arrows. However, in the Petén area, both are absent. The arrow and markers could have been destroyed and not found yet.

Through the literature and the data, we can deduce that the ballcourts:

- Were I-shaped
- Were located in the core centre, near plazas
- Symbolised the underworld and connected the north and south parts of the city
- Had a north-south orientation
- Were not present at every site
- Could be categorised into three types
- Could be segregated and their access restricted
- Could have arrows and markers

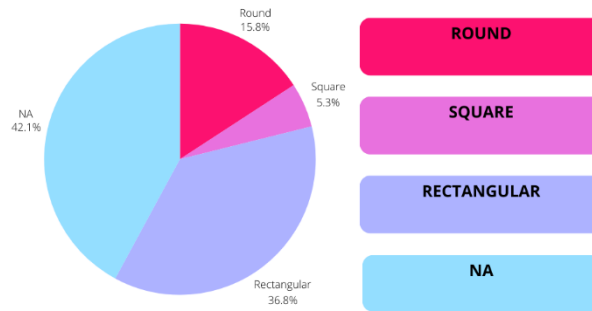
(4) The *temazcal*, also known as a sweat bath, was well-known among the Maya. The study of this complex structure and belief still lacks explanation and studies. The sweat bath was a small, rectangular, simple structure that was most of the time located in the core areas of the sites or elite courts (Miller 2013: 1). The entrance was a narrow doorway. In the middle of the room was a firebox where hot rocks were put inside, and water was poured over them to provoke vapor. Benches were placed around the firebox (Miller 2013: 7; Sheets 2002: 89f.). Near the sweat bath, a water drainage or canalisation must appear (Hohmann 1995: 35). The structure can replicate the Maya cosmos. It has four sides and a central firebox (Miller 2013: 215). Miller also describes it as "a sacred place as a replica of the god's original creation of the world and focuses inwards on its center point, the firebox" (cited by Miller 2013: 18). The sweat bath was a place of transformation, death, and rebirth. It is the birthplace of the gods, ancestors, and humans (ibid.: 27).

Moreover, the doorway is narrow and small. It could be a metaphor for the uterus of a mother before giving birth (ibid.: 40). The act of entering the sweat bath is to die. With the purifications, a new person comes out, such as a newborn (ibid.: 41).

The sweat bath had a particular function. It could purify the corpse and soul and restore the hot and cold equilibrium (Miller 2013: 1). Besides, a central purpose was childbirth and female health (ibid.: 8). The purification of mother and child permitted to enter the community and sharing the same identity (ibid.: 9). The infant could be accepted, and the mother could find her warmth again. For the Maya, the heat was associated with well-being (ibid.: 39). Women with menstruation and childbirth fluctuated between cold and warm (ibid.: 55). That is why, after delivery, women need to restore the cold, warm equilibrium by using the sweat bath. It also permitted the renewal of fertility (ibid.: 56). Sweat baths could also be used to practice some rituals (Sheets 2002: 89).

Furthermore, a myth about the sweat bath exists. An older woman, linked to the mother earth and the moon goddess, went to the sweat bath with her children, the Sun and Venus. The children killed the older woman inside. Since then, the older woman was identified as the protector of the sweat bath. The older woman incarnated the qualities of the sweat bath: purification, childbirth, death, illness, and curing (Miller 2013: 37).

Of the visited sites by the author, a bit more than half of them had the presence of a sweat bath (Annex 1.11). The scarcity of numbers can be due to their construction made of perishable material. Their finding is, therefore, more complicated than if all sweat baths were built in stone. None of them had any kind of decoration. The shape of the *temazcal* from the sample was mainly rectangular (36.8%) (Figure 63).

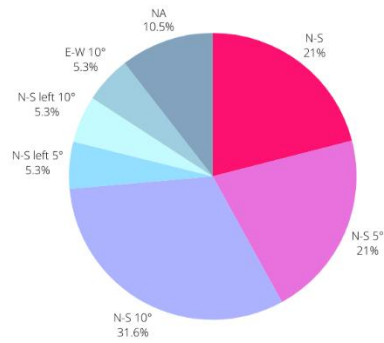


Sweatbath shape

Figure 63: Graph sweat bath shape

Sweat baths were present in every region except in the Río Bec region. This could be due to their limited use, absence, or invisibility within the structural area. They were located in the majority of the cases of the data within the core area near ballcourts, cenotes, temples, plazas, and palaces. Their function was ritual and political. However, they could also be found in residences for healing and cleaning purposes. Therefore, sweat baths could have been independent structures, or they could have been incorporated within a structure. When the *temazcal* was placed in the main plaza, its visibility was high. Could the community or elite groups use them for some communal events?

Moreover, the sweat bath had a north-south orientation (Figure 64). From the sample, 84.2% were following a north-south axis. They could have followed the orientation of the ceremonial structures that were also on a north-south axis, or they could have had a cosmological link to the ceremonial structures. They could symbolise, as the ballcourts, the watery realm of the underworld. Also, they could have a rebirth meaning for curing a person. In addition, they could show the cyclicity of life (shared place for ritual and cleaning between different generations, birthplace) as a comparison with the sun and moon cycle.



Sweatbath orientation

Figure 64: Graph sweat bath orientation

Through the literature and the recollected data, we can deduce that the sweat bath:

- Could be challenging to identify due to its construction material
- Had mainly a rectangular shape
- Was located in the core area near civic, ceremonial, and political structures
- Could have been placed within households
- Was used individually or shared
- Could have been independent structures or placed within a building
- Had a north-south axis
- Could have a cosmological symbol
- Could have a purification and rebirth function
- Could be used for the practice of rituals

4.3.3) Political structures

The next part deals with the political structures that were probably built for political duty. Two categories of buildings will be investigated: the palaces (the royal palaces are mainly the focus here) and the council houses. The term palace is a Western word that was used in analogy to define a specific type of structure (Christie 2003: 154f.). In big centres or rural settlements, at least one large and multiroomed house belongs to the local elite (Arnauld 2013: 379). One of the best-built and well-designed structures was the palace (Carrasco Vargas et al. 2005: 55; Christie 2003: 165; Kievit 2008: 201). They were located near plazas and within

the civic-ceremonial core area of the city on an elevated platform (Carballo 2011: 163; Parmington 2011: 11; Christie 2003: 239). Moreover, palaces could form a quadrangle group, which is an arrangement of four range buildings surrounding a courtyard (Parmington 2011: 29).

Palaces were composed of many rooms containing vaults (Gallareta Negron 2013: 260; Parmington 2011: 10; Archive UAC, Folan et al. Structure 2B; Hendon 1990: 418). They could have a complex ground form (Andrews 1992: 5). For example, the palace in Labna had 63 rooms (Andrews 1993: 16). Four structures around a courtyard form the Nunnery quadrangle complex in Uxmal. The total number of rooms for this complex is around 86 (Andrews 1992: 8). Some structures, such as palaces, can have more than one level of rooms. For example, in Kabah, the palace Structure 1A1 was composed of two stories (ibid.: 155). Sayil has a three-story palace consisting of a total of 94 rooms (Andrews 1995: 79). An acropolis is a combination of political and ceremonial structures located on an elevated platform whose access was restricted and controlled (Houk 2015: 37). Caana in Caracol was composed of 4 palaces, which would be a total of 71 rooms, and with a triadic temple complex on its top (ibid.: 131). The Palace of Palenque was semi-public. It was believed that of the 84 rooms in the palace, 31 were used to control the access (Parmington 2011: 161).

Large central rooms with elaborate benches could have served as a throne room (Inomata 2010: 51). Thrones can be more elaborate than benches. For example, they were sculpted and had a lot of details, such as cushions to elevate the ruler above his audience (Christie 2003: 112). Cordholders were a kind of door-closing system made by curtains (Hendon 1990: 124). They are present in households and palaces. For example, in the Sayil palace, few rooms had their remains (Andrews 1985: 99f.). Depending on the sculptural style of the region where a building was constructed, the palace façade could have been richly decorated. For example, Kabah Structure 2C6 was a palace decorated with Chac masks disposed of in a waterfall (Andrews 1992: 188f.).

In addition, the ruling elite inhabited the palaces. They were buried there (Misión de arqueología de España 1990: 37). For example, in Calakmul, Structures 2B and 3 were palaces where burials were encountered (Archive UAC, Pincemin 1988).

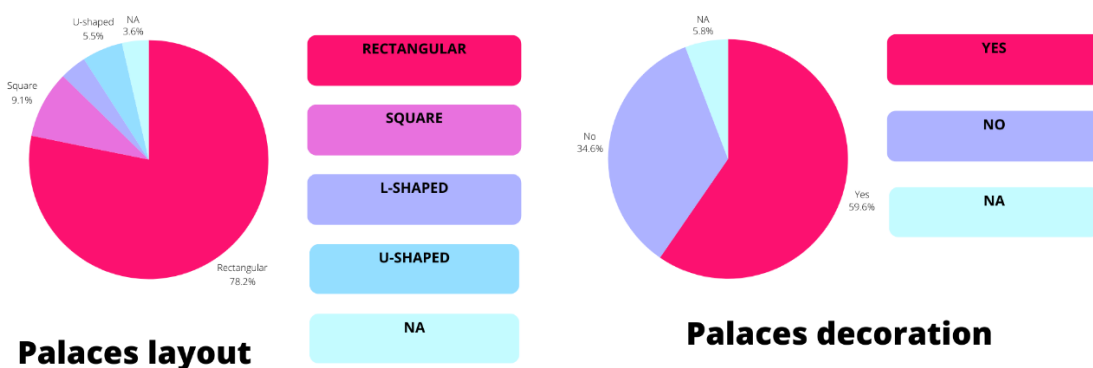
Palaces could be seen as places where the inhabitants lived with their ancestors and the gods (Chase et al. 1992: 174).

Furthermore, the palaces were multifunctional. This means that the residents were involved in various activities (Nichols 2012: 688; Andrews 1992: 14; Christie 2003: 106; Carrasco Vargas et al. 2005: 55). The palaces could have been the residence of the royal elite (Inomata 2008: 25). They could be seen as a place where the founding ancestor was living. Being the heart of the sacred and political functions, it was a restricted space (Bazy 2013: 103). They could also include semi-public functions that enabled to legitimise and fortify their power and identity (Carballo 2011: 162; Bazy 2013: 23). Buildings with semi-public functions had the aim of receiving some important guests for dealing with the fate of the city (Parmington 2011: 87). Furthermore, palaces could have various other functions such as political, administrative and ceremonial (Gamez Diaz 2013: 59; Ashmore et al. 2021: 40; Sharer 1983: 8; Coe 1976: 62; Morton 2007: 77). For example, in Caracol the Caana Structure was multifunctional. It encompasses administrative purposes (audience, writing records, and non-utilitarian artefacts), a residential area for the royal elite, and on top, it had a ceremonial function with the triadic temple-pyramids (Chase et al. 2017: 191; Awe et al. 2005: 169). The south acropolis in Caracol was a space that had residential and non-residential purposes (Chase et al. 2017: 191). In Aguateca, the House of Masks was a royal palace, and it also had an administrative purpose (Emery et al. 2004: 802). In Xunantunich, the Castillo had a residential and ceremonial function (Houk 2015: 151).

From the data recollection made by the author, we can see that every major site had a palace (Annex 1.12). Some cities could have more than one palace. It was not geographically and temporally dependent. However, even if the size or rank of the city was not a criterion for the number of palaces, it could have an impact on the presence or absence of this political structure. For example, Joya de Ceren was a small farmer settlement where no palaces were found within the excavated area (only a communal house). Moreover, palaces were mainly located in the core area of the centre near temples, ballcourts, marketplaces, other palaces, elite residences, and main plazas. Due to their location, these buildings were visible, but their access was highly restricted. The function of the palaces was varied. They could be used

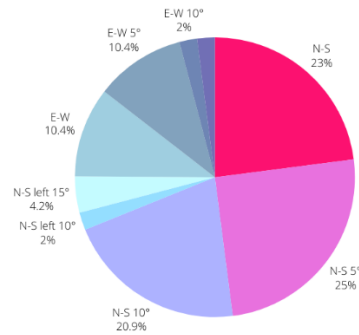
as residences for the royal elite (including spaces for rituals, workshops, dormitories, preparation and service of food, and storage), as administration, and as political seats (presence of thrones for meetings and assemblies of dignitaries).

In addition, the shape of the palaces was rectangular in almost 80% of the cases (Figure 65). This could be due to their range structure shape. Indeed, a palace could have been built as an independent structure, or it could have formed a quadrangle assemblage of four range structures placed around a courtyard. Palaces could have worked as households, but with different sizes, elaborateness, and functions. Some palaces, such as the one in Palenque, were enlarged over time. The functionality could also be affected. For example, the decrease in power of the rulership or the multiple leadership seen during the Late Classic and Postclassic period of some sites could show the adaptability of the palaces to the current political and social needs. 60% of the palaces in the sample present some decoration (Figure 66). These decorations could have been categorised as sculpted façades, the appearance of thrones inside the rooms, the erection of stela in front of the palaces, and the presence of lintels on the doorways.



Figures 65 and 66: Graph palaces layout and palaces decoration

The palaces' orientation followed a north-south axis in more than 75% of the sample (Figure 67). This could be due to their location between the ceremonial structures and their function as the residence of the royal elite and ancestors of the community. It was a focal point for the political space of the city, and it should transmit powerful symbols and meanings. Most structures from the same site share the same orientation.



Palaces orientation

Figure 67: Graph palaces orientation

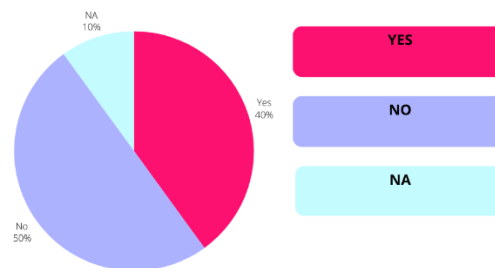
Through the literature and the sample recollected, we can suppose that the palaces:

- Were located in the core area of the cities, but also some in its surroundings
- Were present in every site (however, could have been size dependent)
- Were visible, but their access was restricted
- Were well-built constructions made of stone
- Were composed of various vaulted rooms, and they were placed on platforms
- Were multifunctional
- Could have been ornamented
- Had the presence of burials
- Had elaborated benches (thrones)

The second political structure is the council house. The council houses, also called *popol nah*, were long structures providing a multitude of entrances (Braswell 2014: 336). They had the presence of benches (Kowalski 1999: 314). Due to their central location in the core area of a city and their monumentality, this structure must have had a communal function accessible to several people (Ardren 2015: 133). The *popol nah* is a place for meetings and decision-making processes made by the officials, rulers, and the elderly of the community (Christie 2003: 260f.; Braswell 2014: 336). The majority of the council houses have the *pop* or *mat* motive on their façade. For example, this motive appears in Ek B'alam (Braswell 2014: 338). The presence of the *mat* motive on the exterior façade can be an indication

that this structure was used as a council house (Parmington 2011: 83). This motive can be interpreted as a symbol of authority (Rubenstein Dankenbring 2015: 54).

From the sample recollected by the author, we can see that the council houses were present in every region and during every time period under study in this dissertation (Annex 1.13). Of the 30 sites under analysis, 14 had the presence of a council house. However, few sites could have more than one political structure. 20 council houses were found. Of these buildings, 50% were not sculpted or decorated except for the mat motive (Figure 68). The absence of decoration could lead to a limited understanding of the functional use of a structure. This could explain the small number of these structures in the data.

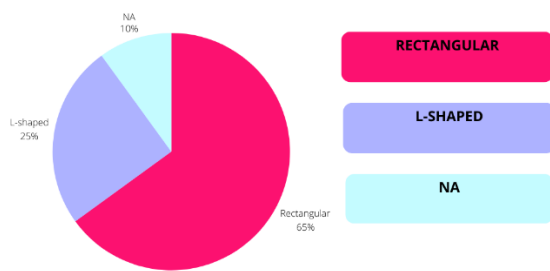


Council house decoration

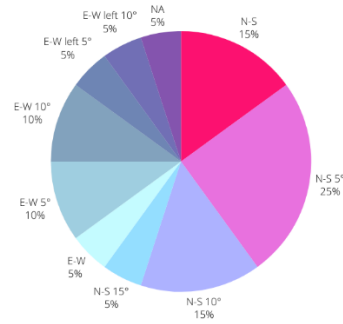
Figure 68: Graph council house decoration

Council houses were present in primary and secondary sites and were located within the core area. They were placed near temples, ballcourts, palaces, acropolises, and central plazas. Their function could have been political (decision-making processes), administrative (elaboration of rules), and ritual (feasting, asking the opinion of ancestors and gods). These buildings were visible due to their focal location in the community, but their access was restricted.

The shape that was mainly used for the *popol nah* was rectangular (65% of the sample), and a few had an L-shaped form (25% of the sample) (Figure 69). The orientation of these buildings followed, in most cases, a north-south axis (60% of the cases) (Figure 70). This orientation was the same as the civic-ceremonial structures.



Council house shapes



Council house orientation

Figures 69 and 70: Graph council house shapes and council house orientation

Through the literature and the data recollected by the author, we can deduce that the council house:

- Was located in the core area of the city
- Had a political, ritual, and administrative function
- Was rectangular
- Was composed of many entrances and benches
- Was visible, but its access was restricted
- Was not geographically nor temporally dependent
- Followed a north-south orientation
- Were sculpted with mat motives and sometimes with other motives

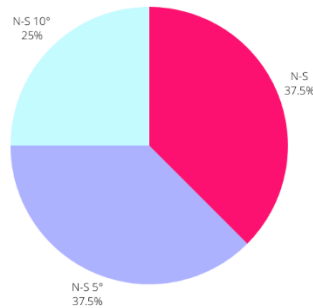
4.3.4) Economic areas

The marketplace was located mostly on large plazas near the main temples (Hammond 1975: 84; Chase et al. 2017: 195). The near location of the causeway system enabled an easy transit of ware and people towards and through the main plaza (Wurzburg 1991: 228; King 2015: 58). For example, in Seibal the marketplace was located in the main plaza of the city (Willey 1975-1990: 9). In Caracol, the archaeologists supposed that the marketplace was at the central plaza in front of the Caana complex (Awe et al. 2004: 17). The products sold in marketplaces, administered by the elites, were the result of household craftwork (Chase et al. 2017: 212). The markets enabled households to have access to some products that otherwise would be unavailable to them (ibid.: 215). The identification of

marketplaces can be challenging. Indeed, the majority of products sold there were made of perishable materials (King 2015: 51). In the remaining texts and iconography from the Maya few evidence can be found as the Chiik Nahb mural painting in Calakmul depicting a market scene (ibid.: 51f.). From the scarce evidence we could discover, we can deduce that the market sellers were putting their trade ware on some mat that again will leave no archaeological remain (ibid.: 60). However, some aligned stones or large structures could have been seen on strategic locations for marketplaces. These could be used as market stalls. The use of LiDAR makes these stone formations more visible (Dahlin et al. 2007: 370; King 2015: 115; Ruhl et al. 2018). For example, in Tikal, colonnaded-type gallery structures were found and could be used as a marketplace (King 2015: 86). We can then see that two types of marketplace were in use: the open-air market (used for some occasions) and the built market (used daily) (ibid.: 91). Besides, it's until recently that some researchers found out that the presence of a marketplace left some modified soil chemicals. For example, phosphorous is a chemical that stays for a long time on the soil surface, and it can attest to some activities practiced there using perishable materials (Dahlin et al. 2007: 363). A concentration of phosphorous, cooking pits, and hearth could show an area of food preparation and service. A space of crafting within the marketplace could be identified through wood posts and a high concentration of iron and zinc chemicals (Dahlin et al. 2007: 375; King 2017: 115). The method of using soil chemistry to identify the marketplaces is still ambiguous and hypothetical, and the results need to be handled with care.

From the sample that the author recollected, only eight sites of 30 (26.7%) had the presence of a marketplace (Annex 1.14). This scarcity can be due to the difficulty of identifying them. Markets were made of perishable materials. The only remains that could have been found would be a concentration of artefacts and postholes. Marketplaces were generally located in the core area on the main square plaza. Temples, palaces, and causeways were nearby. The accessibility to the market was not restricted or segregated. However, there must have been some supervision and control on behalf of the elite. From the sample, markets were more present in primary sites. Big cities could acquire more diversified goods by trade, which they

could exchange there. Moreover, the orientation of the marketplaces was linked to the temples surrounding the plaza organisation (Figure 71). Indeed, all the sites under study had a north-south orientation. Because the cities were planned and focused on temples, the plaza, and the market had to be oriented in function of them.



Marketplace orientation

Figure 71: Graph marketplace orientation

Through the literature and the data recollected by the author, we can suppose that the marketplace:

- Was located on the plaza near the main temples
- Was accessible through the causeway system
- Is challenging to identify
- Had a north-south orientation
- Was controlled by the elite
- Proposed some trade products, but also some that came from the household economy

4.4) Public and private spaces

The next part will focus on the public and private spaces. Here, the aim will be to understand what can be defined as public and private structures and which tools can be used. For this, we will analyse the (1) open spaces (plaza, court, patio), the use of (2) fortifications and (3) causeways, the (4) access, control, and segregation of some structures, and finally, the function of (5) stairs and (6) cordholders.

Before starting the investigation, the terms private and public spaces need to be defined. The term privacy can be understood in two ways. On the one hand, it means

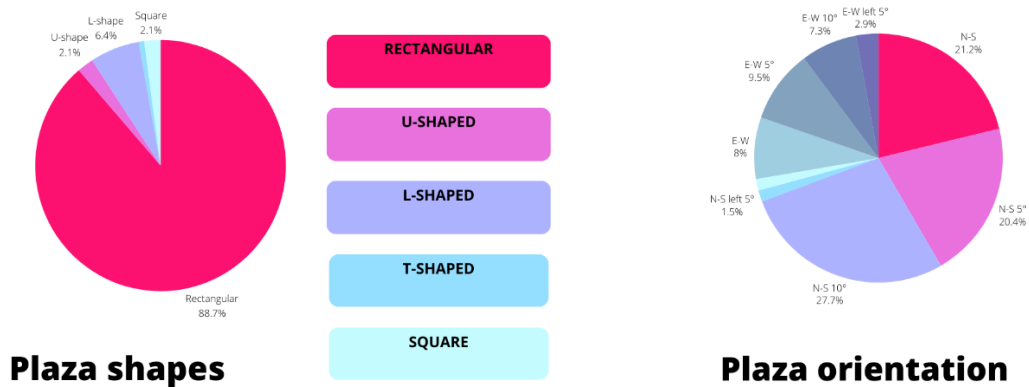
that the family members don't want anyone else to participate or interfere in their space. On the other hand, it can mean that the members of a family tolerate the presence of other people within their sphere, but with certain conditions (same social class, for benefit, for the alliance, etc.) (Parmington 2011: 24). On the contrary, public places were easily accessible. They were spaces of free circulation of people and goods such as the causeways, the plazas, and the marketplaces (Bazy 2013: 17). For example, the more the frontal façade of a structure was open through colonnades or other kind of openings, the more the structure was used in a public way. However, these structures could also have a filter function to control the entrance and circulation of people from one space to another (ibid.: 15).

- (1) The open spaces could encompass three types: plaza, court, and patio. First, we will deal with the plazas. The plaza was connected to the cosmology and could symbolise the portal that led to the primordial sea (Sondereguer 2003: 14; Schele et al. 1998: 45). They were wide and open spaces surrounded mostly by non-domestic structures (Loten et al. 1984: 11). Within a plaza, the most important buildings are mostly placed on the north or west side (Hendon 1990: 534). For Kidder, the plazas must not be understood as significant empty places surrounded by buildings but as central elements of a site's spatial organisation (Manzanilla 2009: 93). Indeed, they were located within the core area of a city surrounded by the most important structures of the site. Moreover, plazas were open spaces used for public events (Parmington 2011: 13). Activities such as ceremonies, music, dances, markets, and communal feasts took place on plazas (Gann 1925: 219; Robin 2012: 152). These events were used for the social interaction between the members of the community (Zalaquett 2015: 21). Their large size enabled them to welcome almost the whole community (no matter their social status) and to create and fortify the identity and beliefs of the community (Zalaquett 2015: 45; Morton 2007: 69; Schele et al. 1998: 29). Therefore, the role of the plaza was multiple: civic-ceremonial, political, and economic (Chase et al. 2017: 95).

Then, we will focus on the courts. A courtyard is an open space that is smaller than a plaza. It was surrounded on all four sides by residences or palaces (Loten et al. 1984: 7; Morton 2007: 69; Houk 2015: 34). Their access was restricted (Christie 2003: 20).

Finally, we will have a look at the patios. They were the smallest open spaces. Residences mainly surrounded them and could form a household compound (Houk 2015: 34). They had easier access than the courtyards (Christie 2003: 20). Household crafting activities could take place there (Willey 1975-1990: 342).

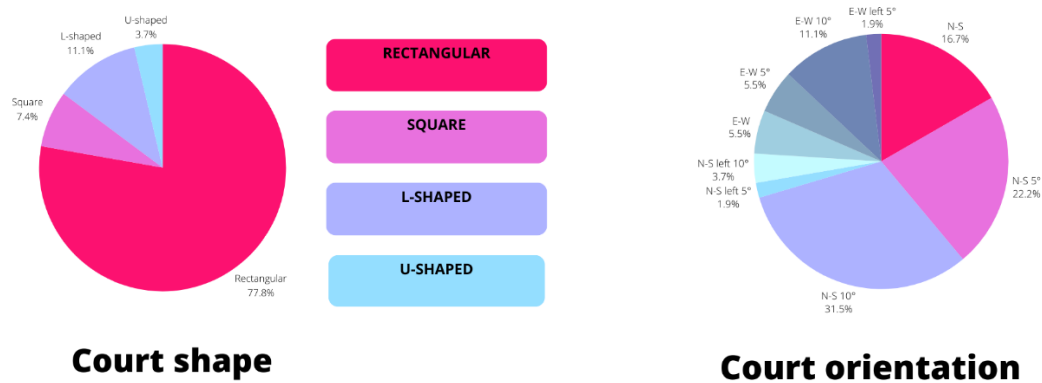
From the data recollected by the author, we can study two open spaces: a plaza and a court (Annex 1.15). On the one hand, the plaza was present in every site in the city's core area, representing 70% of the sample. They were located near a temple, ballcourt, acropolis, range structure, E group, palace, council house, administrative structure, residences, marketplaces, labyrinth, and platform. Stelae and altars were placed on them. We can deduce that their function was mainly civic-ceremonial, political, and economic. These large open spaces could be seen as places where the community can meet and where social imagery and beliefs can be shown. The structures that encompassed the plaza had a public or semi-public function. Moreover, the shape of plazas was mainly rectangular, with 88.7% of the cases (Figure 72). They followed a north-south orientation in more than 70% of the sample (Figure 73). This could be due to their planning and organisation in advance. Indeed, they were the city's focal point and, therefore, the most elaborated part of the site. It had a strong link to the cosmology.



Figures 72 and 73: Graph plaza shapes and plaza orientation

On the other hand, courts were present at every site. However, they appeared in a lesser percentage (only 30%). They were open spaces flanked by palaces, residences, and Acropolis. Their function was mainly residential, political

(assembly of dignitaries), and ceremonial (domestic rituals). Courts were not visible from the outside. They were segregated spaces and pertained to a private sphere. Due to their similar features, the courts could be seen as small and private plazas pertaining to elite families. They could have been located in the core area. In addition, as for the plaza, the courts had mostly a rectangular shape in 77.8% of the cases (Figure 74). The orientation of this open space followed a north-south axis, representing 76% of the sample (Figure 75).



Figures 74 and 75: Graph court shape and court orientation

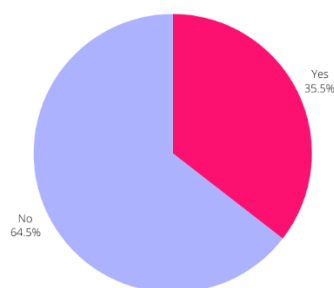
Through the literature and the data recollected, we can assume that:

- The plazas were large, open spaces
- The plazas were mostly used for public and semi-public functions
- The plazas could contain most of the community and symbolise their social belief
- The plazas were connected to the cosmology
- The plazas were the focal point of the city and were planned
- The courts were small open spaces
- The courts were used for private and residential spheres
- Courts and patios were used for the practice of activities
- Open spaces had similar features (shape, orientation)

(2) Some sites could have the presence of fortifications. The defence of a city could be done through the landscape (hills, valleys, ravines, etc.) or wall enclosures made of perishable material or long-lasting construction material such as stone (Canuto et al. 2018: 14). The erection of fortifications can be the result of a hostile atmosphere and relationship that was putting some cities into trouble (Alonso

Olvera 2013: 10; Cortes Rincon 2007). The construction of walls could have the use of segregation of two different areas of the city or property or as a defence against probable enemies (Arnauld et al. 2015: 60; Inomata 2008: 68). The presence of defensive walls surrounding a compound may suggest its importance for the society (identity, precious goods, etc.) (Inomata 2010: 23; Cortes Rincon 2007). For example, the core area of Aguateca was defended by fortifications and the dense periphery (Inomata 2008: 21). Walls could also have been a way to restrict and segregate access to certain important buildings. For example, in Copan, access to the acropolis was restricted by erecting a wall and stairs (Christie 2003: 51). Moreover, Canuto and his team discovered through LiDAR technology that some defensive places located in the vicinity of cities existed. These were places without architecture or structures. We can suppose that they could have been used as a safe place for the community in case of crisis for short-term stays (Canuto et al. 2018: 14).

From the sample recollected by the author, we can see that 11 sites had the presence of a kind of fortification, whereas 20 sites showed no proof of fortification (Annex 1.16). The rank of a city was not a criterion for the edification of a fortification. They appeared almost equally in primary and secondary sites (Figure 76).



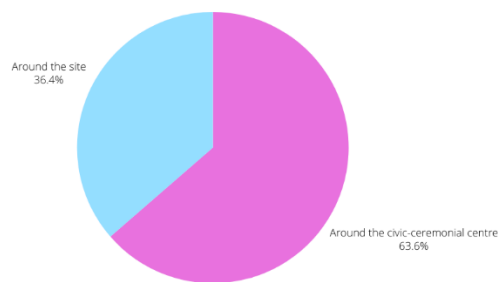
Amount of fortified sites from the sample

Figure 76: Graph amount of fortified sites from the sample

The use of fortification was time and space-dependent. Indeed, they are present mostly in sites from the Yucatan Peninsula (more than 63% of the sample). All the

cities were used during the Late Classic and/or Postclassic period. This could be due to the increased warfare between the different cities and competition between the elites. The Mayans needed to defend themselves and delimit their sacred spaces to prevent undesirable people from having access to the focal point of the community.

Moreover, the fortification can be divided into two categories. On the one hand, some thin and low walls were built around the civic-ceremonial centre. They were present in most of the sites (63.6% of the sample). These kinds of walls could have a symbolic purpose, which is to delimit and organise the city's space. On the other hand, high and thick walls and towers were placed at the periphery of the city. These walls had a defensive purpose (Figure 77). Some sites could also enjoy a defensive landscape composed of hilltops, rivers, and ravines.



Location of the fortification

Figure 77: Graph location of the fortification

Through the literature and the data recollected, we can deduce that the fortification:

- Was present on a few sites
- Was more present in the Yucatan Peninsula
- Was used during the Late Classic and Postclassic period
- Could have been symbolic or defensive
- Could enclose the civic-ceremonial centre or the city itself
- Was used during crisis and decadent times

(3) A causeway, also called *sacbe*, is a “specialized, linear platform” (cited by Loten et al. 1984: 5). They could have been used as a communicative system to connect

various architectural groups (Quintana et al. 2001: 148; Bazy 2013: 29; Parmington 2011: 8 and 13). The road system enabled to connect the periphery of the city, mostly residential compounds, to the core area or civic-ceremonial groups (Chase et al. 2017: 188; Boot 2005: 430; Chase et al. 2001: 276). A *sacbe* usually started or ended in an important plaza or near important buildings, such as the temple pyramids, and had a ritual function. The *sacbeob* could also be a means of transport of water through the city as an aqueduct (Morton 2007: 74). A structure placed on the midpoints of two important axes or causeways should have had an important function for the community (Kowalski 1999: 334; Hutson et al. 2014). For example, the main plaza with the marketplace was a focal point for the road system (Chase et al. 2017: 87). The *sacbeob* could also link two cities or capital states together (Archive UAC *sacbeob* Calakmul; Archive Campeche Calakmul patrimonio de la humanidad). For example, the road system from Coba to Yaxuna, long 100 km, is the longest road known to connect two sites in the Maya area (Ardren 2015: 54). Moreover, the height of a platform or elevation of a causeway means that the access was restricted. Some community members were segregated from some places (Bazy 2013: 59). Some causeways, such as the ones in the epicentre of Caracol, could also have been controlled by the elites (Chase et al. 2001: 277).

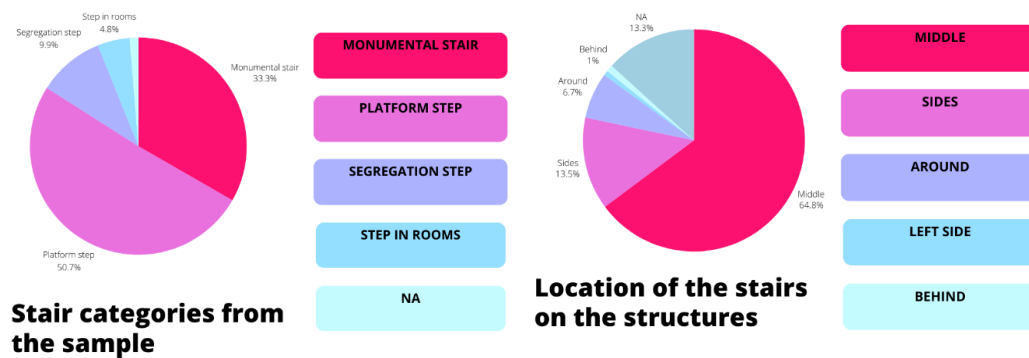
- (4) Some structures used different strategies for their accessibility, control, and segregation. Restrictive access to a building can be done through an elevated platform and/or through the presence of stairways with high steps (Parmington 2011: 29; Andrews 1992: 15; Archive UAC Structure 3 Calakmul). The more a structure had restrictive access, the more the structure had an important function, the people living within the buildings had a high status, or the rooms were used for private or selective activities (Parmington 2011: 33; Andrews 1992: 6). A change in the politics or beliefs can also be seen in the changing of shapes and access of buildings (Fitzsimmons et al. 2003: 454). The constant modification and expansion of buildings made the access to them more and more restrictive. A more profound segregation between the social classes could be seen (Chase et al. 1992: 63).

Buildings with a relationship to the ruling elite were the most restricted places in a city (Christie 2003: 188). Temples, palaces, and ballcourts had, for example, restricted access and were controlled by the elite (Nichols 2012: 685; Schele et al. 1998: 29; Hammond 1975: 82; Chase et al. 1992: 174). The acropolis had a combination of political and ceremonial structures located on an elevated platform whose access was restricted and controlled (Houk 2015: 37; Sanchez 2005: 262). The access control could be done through the presence of windows in the structures. They were used as a lookout or observatory (Parmington 2011: 126; Archive UAC, Alvarez et al. Structure 3 Calakmul excavacion y consolidacion). Moreover, the way the rooms were partitioned and the presence of inner courtyards are testimonies of segregation and privacy (Arnauld 2013: 477; Sion 2016). Reception rooms were large and near the private rooms of the residents. The visitors must have been essential to the inhabitants of the house, and they treated them as if they were part of the house members (Arnauld 2013: 485).

- (5) Stairs can be used to control access to a building or to segregate a space (Andrews 1992: 16; Bazy 2013: 29). A structure with a stairway in the middle of the construction can be a sign of an important building for the society (Hohmann 1995: 138). In addition, stairs could have been carved to symbolise the power of the ruler (Houston 1998: 193). Glyphic stairways leading to buildings were not widespread. When they appear in some sites, we can interpret the structure as important and focal for the community's identity (Misión arqueología de España 1990: 99f.; Misión arqueología de España 1992: 75). For example, the Glyphic Stairway in Copan is located on the main plaza and leads to the main temple of the city (Toten 1973: 44f.).

From the data recollection, the author divided the stairs into four categories: the monumental stair, platform step, segregation step, and steps inside rooms (Annex 1.17). Every site, primary and secondary, had all the categories of stairs except for the step in rooms, which are less common in the sample. However, if we take the example of Joya de Ceren, a farmer's settlement, we can see that monumental stairs and segregation steps were unavailable. These two types could be linked to the highest social classes.

The monumental stairs were present in the sample with 33.3% (Figure 78). They could represent the power of the community and the buildings they were placed on structures, such as the ballcourt, palace, temple, acropolis, and administrative structures. This type of stair only appeared in the core area of the city and on important and focal buildings. In the majority of the cases, the monumental stairs were flanked in the middle of the structure (Figure 79).



Figures 78 and 79: Graph stair categories from the sample and the location of the stairs on the structures

The platform steps were mostly used within the sample (50.7% of the cases). Their purpose was to elevate the superstructures such as the arch, palace, temple, range structure, council house, platform, residence, ballcourt, market, labyrinth, and plaza. The steps were placed on the sides and around the platform. This category of stairs is more widely used than the others through the extensive use of platforms as bases for further construction of a vast array of building types.

The segregation steps represented almost 10% of the sample. They were seen near the plaza, palace, temple, platform, and acropolis. Their purpose was to control access to these buildings or spaces. These steps had no specific location within the space. This means they could appear at the side of a structure, in front, in the middle, or all around.

The steps in rooms were the lowest type of stairs used, representing less than 5% of the sample. They appeared in residences, palaces, temples, range structures, and labyrinths. These steps within rooms enabled us to segregate the spaces in the

function of the activities practiced there and/or to delimit the space through the social classes.

In addition, the stairs could have been ornamented with glyphs. Only 2.5% of the sample contained some glyphs on their stairs. The scarcity of the presence of the glyphic stairs could be due to their erosion or destruction through time, or voluntary destruction of the social memory of a city. Of the glyphic stairs, almost 70% pertained to the monumental stairs (Figure 80). The remaining 30% pertained to the platform steps. Temporally, the glyphic stairs were present from the Middle Classic till the Postclassic period. However, we can suppose that the earliest ornamented stairs had only some glyphs, whereas the latest stairs had historical facts on them. The more time passed, the more elaborate the ornaments on the stairs became.

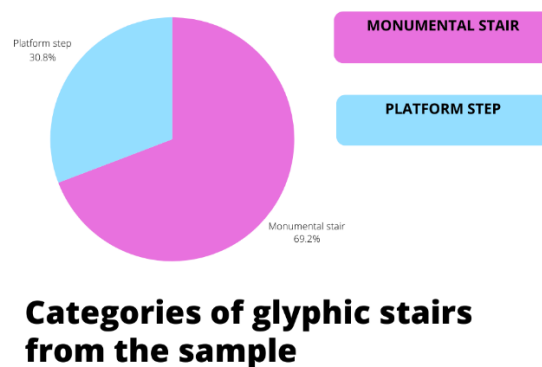


Figure 80: Graph categories of glyphic stairs from the sample

Through the literature and the data recollected by the author, we can suppose that:

- The stairs could be divided into four categories
- The monumental stairs and platform steps were mainly used
- The type of stairs is linked to the function of the building
- The purpose of stairs was different (symbolise power, elevate the superstructure, provide access to the structure, or segregate the space and the rooms)
- Monumental stairs were placed in the middle of the structures and could be ornamented
- Platform steps were flanked on the sides of the structures and could have been ornamented
- The elaborateness of the glyphs was connected to the advancing time period

(6) Cordholders could have been found inside or outside of some rooms of certain buildings. A cordholder is “a device usually found in walls adjacent to doorways, with a vertical pair at each jamb. The holder is generally a rectangular or square recess. The recess contains usually a vertical or horizontal peg of stone, bone or other material” (cited by Loten et al. 1984: 6; Hellmuth 1989: 51). Two types of cordholders existed. On the hand, the one that was located inside the room to close it from the inside (Hohmann 1995: 27). On the other hand, cordholders situated on the outside of the structures can serve for binding the animals or for closing a storeroom from the exterior (ibid.: 70). One example of cordholders placed between two structures was found in Tikal in the Central Acropolis (Bazy 2013: 135). A restricted access can be supposed by the presence of cordholders (ibid.: 16).

From the sample that the author recollected, we can see that some rooms containing benches could also have the presence of cordholders (Annex 1.18). Of the 192 structures under analysis, only 20.3% had the presence of cordholders (Figure 81). This scarcity could be due to their destruction and the oversight of the reconstructors. It could also be the case because of the non-accessibility of the author to the inner rooms of some buildings.

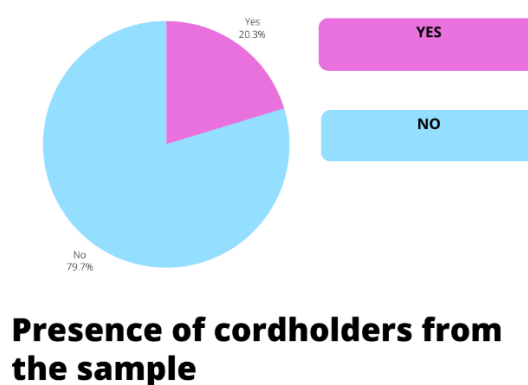
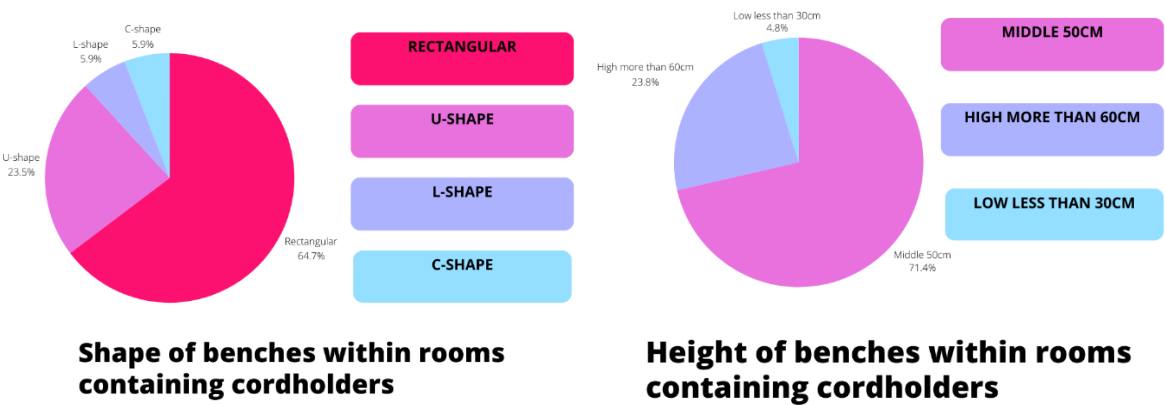


Figure 81: Graph presence of cordholders from the sample

Rooms with cordholders could also have the presence of benches. Benches were mostly rectangular (64.7% of the sample) and at a middle height of 50cm (71.4% of the cases) (Figures 82 and 83). The structures with cordholders were council

houses, residences, palaces, temples, labyrinths, and range structures. As we saw earlier, the purpose of cordholders is to close a space. We can see that the rooms within these buildings were mostly residential and private, with restricted access for storage, and/or were spaces where decision-making processes took place. The benches could then be used as seats for meetings between people, sleeping areas, or shelters.



Figures 82 and 83: Graph shape of benches within rooms containing cordholders and height of benches within rooms containing cordholders

The orientation of the structures containing cordholders was more than 70% following a north-south axis (Figure 84). This could have been the case because of the function of the buildings where these cordholders were placed. Indeed, the structures had mainly residential, ceremonial, and political purposes. From the previous analysis, we could understand that these constructions were oriented through a north-south axis.

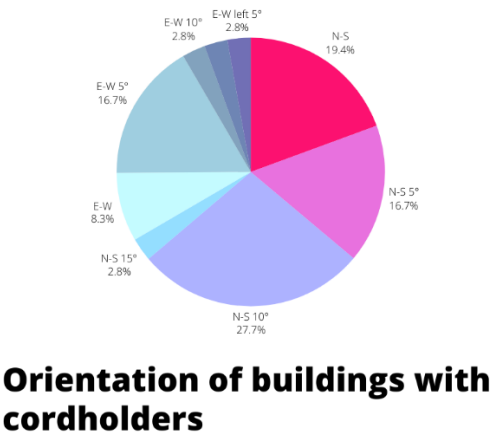


Figure 84: Graph orientation of buildings with cordholders

Through the literature and the recollection of the data, we can suppose that the cordholders:

- Were a doorway closing system (located inside or outside of the door)
- Were scarce to find
- Appeared in rooms with rectangular and middle-height benches whose purpose could have been as seats, sleeping areas, or shelters for storage
- Were present in residential, political, and ceremonial buildings
- Were present in private rooms with restricted access and/or for decision-taking purposes
- Had a north-south orientation

4.5) Discussion

After gaining insight into the architecture and architectural features, the author wanted to place all the recollected information into a map for each site. This means that for every site in the sample, a map was created showing the distribution of the different types of structures. The domestic structures were coloured red, and when the service structures (including the kitchen and workshops) were available, they were coloured brown. For the non-domestic structure category, the ceremonial structures were blue, the civic structures were violet, the political structures were green, and the platforms were coloured yellow. In the following, we will discuss the maps of every site under study. It will be subdivided into the rank and size of the cities. The author is aware that this hierarchisation can be biased. The ranking methods used here will be defined within each section. Temporally, the sites could be classified as pertaining to the same category, but their ornamentation or details could be different (Garza Tarazona et al. 1980: 21). We will start with the primary centres, then the secondary centres, and finally, the small settlements. The bibliography used to elaborate the maps can be seen in Annex 3.

4.5.1) Primary centres

For the author, the primary centres were mostly the important cities or state capitals, whose size was widespread. The number of stone architecture is higher than in other cities (Lerner n.d.: 10; Garza Tarazona et al. 1980: 22). There might also be the presence of various functional buildings such as ballcourts, temple-pyramids, and plazas (Hammond 1982). Many causeways departed or arrived at the primary centres (Canuto et al. 2018: 13). From the sample, the author identified 14 sites that count to this category, such as Calakmul, Caracol, Chichen Itza, Coba, Copan, Dzibanche, Edzna, Lamanai, Mayapan, Palenque, Tikal, Uaxactun, Uxmal, and Yaxchilan. The author will start to analyse the sites from the Classic period and then from the Postclassic period.

The Classic period primary centres are:

Calakmul had a focal point composed of political, ceremonial, and civic structures (Annex 2.1). The main plaza was surrounded by the acropolis. The Great Acropolis had a residential, civic, ceremonial, and political function. The ballcourt present there could have been used only by the elite for their own needs. Ceremonial structures were also present. Temple 2 could be used as a central location for ceremonies and transmitting the power of the city. The main plaza could, therefore, be used as a meeting space. Around this core, household compounds with sometimes the presence of a ceremonial structure were found. They were used as houses for the elite.

Caracol was a site composed of two groups (Annex 2.2). The main plaza contained Caana (a structure with civic-ceremonial, political, and residential functions reserved for the royal elite), ceremonial structures, a marketplace, and a ballcourt. This plaza could have been used as a meeting point for the community. The other group of buildings was more restricted. It contained an acropolis (residential and ceremonial function), an E group, and a ballcourt. The elite could have used the ballcourt to practice ceremonies.

Coba was a site composed of four groups (Annex 2.3). Each group could have been used for a different purpose. The D Group and Coba Group were mainly civic-ceremonial. The Macanxoc Group could be used as a residence with some

ceremonial structures. The Nohochmul Group could be the political part of the city due to its political and ceremonial function.

Copan could be divided into three groupings of buildings (Annex 2.4). The main plaza had a civic-ceremonial function. Next to it was the acropolis, with restricted access to the political, ceremonial, and residential buildings. The residences were reserved for the higher elite. Two other groups were found. They both had some political, ceremonial, and residential functions. Were some political tasks divided between different groupings of structures?

Dzibanche had one plaza after another (Annex 2.5). They were enclosed by buildings, elevated, and segregated by the presence of stairs. The main purpose of the core area was civic-ceremonial, political, and residential, but only for the higher social classes of the community. The residential space was segregated and not easily accessible.

Edzna had a main plaza surrounded by civic-ceremonial structures (Annex 2.6). A residential compound was found. The elites could have used this to control the main space of the city. Two acropolises were present. The Small Acropolis had a ceremonial duty. The Great Acropolis had buildings for ceremonial, political, and residential purposes. Access to the Acropolis was limited to the royal elite and higher social classes of the community. The core area was also flanked by many *sacbeob*. Could this main plaza be used as a meeting point for the community for the public event? Or could this space be only used as a passageway?

Palenque was a site forming four groupings of constructions (Annex 2.7). The focal point of the city was made through civic-ceremonial, political, and residential structures. The residences were used by the royal elite (and, at one location, by the temple keeper?). The remaining three groups were used for the elite residences.

Tikal and its core area could have been divided into 3-4 groups (Annex 2.8). They were linked by *sacbeob*. The main plaza was surrounded by palaces, the acropolis, and civic-ceremonial buildings. Palaces and acropolis were restricted to the higher social classes. They had ceremonial, residential, political, and civic functions. The presence of a small ballcourt next to the palace could have been used only by its residents. Another ballcourt was placed within a temple arrangement. This one

could have been used for public events and to transmit power and prestige to the visitors.

Uaxactun was a city composed of four architectural groupings from which two were linked through a *sacbe* (Annex 2.9). We can deduce that Groups A and B could have been the central point of the city. Group A had the presence of structures with a ceremonial, political, and residential function. The royal elites probably used the residences. Could this group be only accessible to the higher social classes of society? Group B could have a civic-ceremonial and political function. The plaza could have been used for community meetings. Group E was ceremonial. The presence of the E Group could have been proof of an ancient architectural formation. Groups A and B could have been added to the ceremonial centre at a later period of time. Group D was mainly residential. Elites or pilgrims could have stayed there.

Uxmal had a core area that was enclosed by walls (Annex 2.10). Many quadrangles were present, supposing a residential and political function. Ceremonial structures were present and/or accessible only through the quadrangles. Access to them was, therefore, highly restricted. Near the ballcourt, some residences were found. They could pertain to the servants whose role was to work for the elite residing within the quadrangles. Due to the enclosure of the core area of the city, could this space be only accessible to the higher social classes? Or could the community meet for the ballgame?

Yaxchilan had a main plaza surrounded by civic-ceremonial, political, and residential structures (Annex 2.11). The residences were used by the royal elite and the elite in charge of the structures located there. Due to the wide space and the restricted access to the main buildings of the city, we can deduce that the plaza might have functioned as a meeting point for the community. They could reunite for the ballgame, for example. However, access to this main plaza seems segregated. The two other groups comprised only ceremonial structures and an acropolis with civic-ceremonial and residential functions.

The Postclassic primary centres are:

Chichen Itza could be composed of three groupings (Annex 2.12). The main plaza was built with civic-ceremonial, political, platforms, and economic structures.

Around this arrangement appeared residences with temples inhabited by the elite. Chichen Viejo was located further away from the focal point of the city. It contained buildings with a residential, ceremonial, political, and civic function. Chichen Viejo was probably the first location of what would later become the great Chichen Itza city.

Mayapan had a focal point composed of the plaza in front of the Castillo (Annex 2.13). Around this plaza, the structures had a civic-ceremonial, political, platform, and residential function. The residences were mainly used by the higher social classes. Some residences were found with service structures at the main plaza's periphery. Mayapan's core was mainly composed of civic buildings. In some cases, service structures were found near them. This could be due to the civic-residential function of some of these structures, such as men's houses.

An example of a long occupation period primary centre is Lamanai.

Lamanai had an expanded architectural grouping (Annex 2.14). One group contained only ceremonial structures. Another group, which could have been the central group, had a plaza surrounded by civic-ceremonial and political structures. Next to it, we can find some residences and the highest temple. Access to the main plaza was limited, and the whole community could not be welcomed. Therefore, the purpose should have been to be used only by the high social classes.

To conclude, we can suppose that the primary site's core areas were planned and organised in advance, and the periphery might have grown through time. Most of the cities were composed of more than one architectural grouping (acropolis, plazas, etc). They were often connected through the causeways. The different groups could have had a specialised function, and/or they could have been erected in a different time period.

The focal point of the centres was the main plazas, surrounded by buildings with a civic-ceremonial, political, and economic function. They were pertaining to public or semi-public structures. The more a plaza was wide open, the more it could welcome the whole community for public events. Small or spatially segregated main plazas could have been restricted to the higher social classes of the community. The main temples present in plazas could have the purpose of transmitting power to the community so that they could share the same social

identity and beliefs. It could happen that some houses were located near the temples. These could have been the residences of the temple keepers or pilgrims. Residences could also be located near ballcourts or marketplaces. Their purpose could have been to control this space. The ballcourts could pertain to a private or public sphere. Indeed, if the ballcourt was small and placed within a segregated space, it could be used only for private purposes by the elite. However, if the ballcourt was of significant size and freely accessible or near public structures, its purpose was to enact public events. In addition, civic structures with service structures on their side, as they could be seen in Mayapan, could have been used as men's houses or communal residences for important visitors.

A bit further away, the main plaza, palaces, residences, and quadrangles were present. They were private spaces. The more the residence was located in the heart of the city, the higher the status of its inhabitants was. However, some lower-class residences could be found in the core. They could pertain to the servants whose role was to work for the elite. In some cases, we can see that residential compounds had the presence of a ceremonial structure. This could have been the space for domestic rituals.

4.5.2) Secondary centres

Secondary centres could be defined as smaller cities than the primary ones. They could have some structural groupings that were linked to others through causeways. One secondary centre was surrounded by the same city scale (Garza Tarazona et al. 1980: 32). From the visited sites, the author supposed that 18 cities corresponded to secondary centres such as Aguateca, Altun Ha, Bonampak, Dzibilchaltun, Ek Balam, Kabah, Kohunlich, Labna, Oxkintok, Quirigua, Sayil, Seibal, Tonina, Tulum, Xpujil, Xunantunich, Yaxha, and Yaxuna. Here again, the sites will be divided through their temporality.

The Classic period secondary sites are:

Aguateca was a site whose focal point was a plaza surrounded by structures with a residential, political, and civic-ceremonial function (Annex 2.15). Access to the

plaza was segregated and restricted. Only the royal elite and the higher social classes had access to the core.

Altun Ha had a focal point that contained mainly ceremonial structures and one political structure (Annex 2.16). Further away were located the domestic structures of the elite.

Bonampak had a main plaza composed of an acropolis (Annex 2.17). The acropolis had a political and ceremonial function, and the presence of platforms. Further away from this main plaza, some residences could be found. The elite resided there.

Ek Balam had a core area that was enclosed by walls (Annex 2.18). The entrance was done through an arch. This entry could have been controlled. Within the heart of the city, we can see some civic-ceremonial, political, and residential buildings. The access might have been restricted through the presence of an acropolis, and the ceremonial structures were placed on high platforms. Only the royal elite or higher social classes could easily access this place. However, through the open space from the main plaza and its proximity to the ballcourt, we can ask ourselves if the community could maybe participate in the ballgame events.

Kabah was a city composed of two groups (Annex 2.19). One group was located near the arch that could have been used as a controlled entry to the city. It was mainly composed of residences and civic-ceremonial structures. Many *sacbeob* were passing through this group. However, the quadrangle and building arrangement were relatively close to each other. Was this space restricted and only accessible to the elite? The other group was formed by a large acropolis (elevated and placed on big steps) with residential, ceremonial, political, and platform purposes. This group could have been the political part of the site. The royal elite was probably located there.

Kohunlich could be divided into three architectural groupings (Annex 2.20). The main plaza was surrounded by an acropolis, civic-ceremonial structures, a palace, residences, a platform, and political structures. The plaza was wide and could accommodate the members of the community. However, the presence of the residences could evoke the presence of a more private space. The residents could have been from lesser social classes, such as commoners or servants who worked for the elite. Therefore, the plaza could, in this case, be public. Around the core,

there were different household compounds. Their access was restricted and segregated. Elite members could have lived there. Also, some residences were located near the ballcourt. Probably, the inhabitants were controlling the area. A few meters away, the last group was composed of residential, ceremonial, and platform constructions. This group could have a ceremonial purpose. The residence could be used for the pilgrims or the temple keepers.

Labna was a city that could have been composed of three architectural groupings (Annex 2.21). The palace was located on a platform. This enabled spatial restriction and segregation. The palace had a residential, civic-ceremonial, and political function. The group was linked to another one through an elevated *sacbe*. The group had an arch, residences, and ceremonial structures. With the presence of the arch, elevated causeway, and closed space, we can deduce that the group was restricted to the higher social classes of the community. Near the causeway, an elite residence was found. Was the open space between the groups used for communal and public events? The elevated *sacbe* and the presence of residences might be proof of a more private purpose.

Oxkintok was a site composed of three restricted and enclosed groups connected through causeways (Annex 2.22). The Dzib Group was mainly civic-ceremonial and political. The May Group had a residential, political, and ceremonial function. The Ah Canul Group had the presence of political, ceremonial, and residential constructions. We can say that the Dzib Group had the duty of the civic part, and the Ah Canul Group had a more political and residential purpose.

Quirigua could be divided into two groups (Annex 2.23). The main plaza was wide and contained ceremonial, platform, and civic structures. The plaza was located in front of the acropolis. It had a residential, political, and ceremonial function. Only a few people had access through its elevation and high steps. The plaza could have been accessible to the whole community for public events. Another group was composed of a household compound (residence and ceremonial structure) for the elite members.

Sayil could be divided into three architectural groupings (Annex 2.24). The palace had a civic-ceremonial, political, and residential function. Its access was restricted to the elite and royal elite. A second group had a ceremonial and residential purpose.

It was connected directly through a causeway to the palace. This group might have also been reserved for the elite. Some other elite residences were found on either side of the *sacbe*. No central location could be found where the community could come together.

Seibal contained two groups made of civic-ceremonial and residential buildings (Annex 2.25). One of them had mainly a residential purpose. The other one had the presence of a ballcourt. This group could have been the heart of the centre. Access to the ballcourt could be restricted to the number of constructed buildings, or it could be accessible for some events.

Tonina was a city that could be divided into two groups (Annex 2.26). The acropolis present in Tonina was nine levels high. It contained ceremonial, residential, service, and political structures. The residences could pertain to the royal elite, elite members, servants, commoners, or temple keepers. Platforms and civic-ceremonial structures were found in front of the acropolis. The ballcourts were freely accessible on the plaza. The community could probably come together for some events.

Xpujil was a city whose buildings remained mainly under the vegetation (Annex 2.27). The author could visit four structures. One ceremonial structure had a service building next to it. It could be used as storage, a ritual tool workshop, or a kitchen. A residential and political building was also present. The structures available mainly had a private purpose.

Xunantunich was composed of two groups (Annex 2.28). One group was only residential in function. A *sacbe* was linking the group to the main plaza. The residents could have had a role to play in the buildings present in the main plaza, or the visitors could have used the houses. The main plaza had buildings with various political, ceremonial, civic, and economic functions. The marketplace was located near the ballcourt and some elite residences. These residences could have been used to control this space and keep it open to public activities. Castillo and a quadrangle were mostly restricted and had some residential functions.

Yaxha was composed of seven groups of structures connected through the causeways, from which five groups were exclusively ceremonial (Annex 2.29). One acropolis had a residential, civic, and political function. The access was restricted and segregated. The main plaza or group could be formed by the E Group. It was

probably not easily accessible for the whole community, as the construction density is relatively high around it. Two ballcourts were present. One was located near the palace and could have a private royal elite use. The other ballcourt was near the E Group. Its purpose could have been for the ceremonial events.

Yaxuna had various groupings of structures (Annex 2.30). They could only be made of ceremonial, civic-ceremonial, and residential structures. They were linked to each other through the *sacbeob*. The presence of the acropolis could mark this space as restricted and segregated from the rest. Its function was civic-ceremonial, residential, and political.

The Postclassic period secondary centre is Tulum.

Tulum was a city that was enclosed by walls (Annex 2.31). The focal point of the site had a ceremonial function. It was enclosed by structures, and the access was restricted. Civic and political structures were located near this ceremonial compound. They were placed on platforms. All around this core area, residences and service structures were present. This space was reserved for the elite members.

An example of a long-occupational secondary centre is Dzibilchaltun.

Dzibilchaltun was composed of two groups (Annex 2.32). One group was mainly ceremonial. It was linked to the other group through an elevated causeway. Around this causeway were located small houses. They could have pertained to commoners or servants who worked for the elites. The other group regrouped around a main plaza, some civic-ceremonial, political, residential, and platform buildings. The residences placed there were probably pertaining to elite or royal elite members. The main plaza was wide and could have welcomed a large number of people from the community. However, was access to this place restricted through the elevated *sacbeob*? Or didn't it play any role in spatial segregation? At the periphery of the plaza, some elite residences could be found.

To conclude, the secondary centres were composed of various groupings of structures. Their function was not always specific. Central plazas could, in most cases, not be found. This means that the plazas didn't have the purpose of welcoming the community members to share public events. Causeways enable the linking and connecting of the architectural groups.

The function of the groupings of structures was ceremonial, civic, residential, and political. In a few cases, some service structures could be found. Further residences and residential compounds could be found at the periphery of the heart of the centres, or they were placed at the sides of the causeways.

The core area of secondary sites was seen as a private (residences) and a public space, only for members of the same social class. Indeed, some strategies were used to control, segregate, and restrict a definite space. The control could be done through the presence of arches placed at the entryway of a city. Acropolises and civic-ceremonial structures were placed on elevated platforms, were flanked with stairways composed of high steps, or the construction density was so high that no space was left for large groups of people to access. The higher social classes of the community could enjoy the core area of the secondary sites.

4.5.3) Small settlements

The small settlements were located in the hinterland of the cities. They were mainly used for farming purposes. They were composed of isolated platform complexes that were spread out in the landscape. Very little or no monumental architecture was present there (Garza Tarazona et al. 1980: 37). From the sample, the author defined that three sites could pertain to this category, such as Chan, Joya de Ceren, and Nacimiento.

Chan was a site that was composed of various scattered architectural groupings (Annex 2.33). These could be household compounds or independent houses. A central plaza was present with a civic-ceremonial and political function. There was the focal point of the settlement.

Joya de Ceren is a settlement composed of three to four household compounds (Annex 2.34). No central point was found. However, the civic and political structure could have been the heart of the site. Each household compound had a ceremonial, residential, and service structure. The buildings within the compound were placed independently of each other. A *sacbe* was found to link the compounds together.

Nacimiento could be divided into many scattered architectural groupings (Annex 2.35). These groups could have been formed by residences or by residence and

ceremonial structures. Two small, enclosed plazas were found. This could have been the space reserved for the elite or the leader of the settlement. A ballcourt and a political structure were also present. This part could be the focal point of the public sphere of the site.

To conclude, the small settlements were mainly composed of scattered residential structures. The domestic functions were not present in one structure but were placed within independent structures in a compound. Civic-ceremonial and political buildings were found. However, their number is scarce compared to the primary and secondary centres.

4.6) Chapter summary

This first section was about the architecture of the Maya sites. We could see that the city centres were planned following the cosmology, the special landscape topology, or were formed in basic concentric circles. The city can be seen as a space where nature is separated from the anthropogenic world. They associated different types of buildings together within or around an open space. The architecture was the identity of the sites. Therefore, after a dynastic or ruler change, the buildings were reshaped and overbuilt. Within a structure, a room could have been vaulted, had wall openings, and/ or benches. These could also show that the site layout and each building and its room layout were planned. This can be the case for the core area. The peripheral structures were excluded from this dissertation.

Within this architectural investigation, two categories of structures were put into focus: the domestic and non-domestic structures. The domestic structures were mainly composed of a house, a kitchen, a workshop, and/or a platform. These structures could have been placed around a patio, forming a compound, being independent structures, or being present in the room partition. Domestic buildings were multifunctional. They could have a purpose, such as crafting space, preparing food, doing domestic rituals, and sleeping areas, etc. The practice of the activities could have taken place within the rooms, in the open spaces, and/or in independent structures. These infrastructures were used individually (by inhabitants or family members) or collectively (by neighbours or unfamiliar people in the community).

For example, water management could be an individual or collective construction, depending on the location's environment, the city's size, and the people's status. The location of the domestic structures varied. It depended on the social class of the inhabitants and the materials used to build the residence. A stone house was mainly placed in the vicinity of the core area and pertained to the royal elite or the highest social classes of the community. The houses made of perishable materials were mostly placed at the periphery of the city and pertained to the lower classes of the community. The orientation of the buildings was placed on a north-south axis. The domestic structures could contain the human remains of the ancestors. The Mayans overbuilt to maintain a connection with them and facilitate the expansion of the structures for the next generation.

The non-domestic structures could have had a ceremonial, civic, and political function. They were located in the core area of a city and were mostly rectangular in shape and big. The orientation of these structures followed a north-south axis as the recreation of the cosmos. Their façade could have been ornamented and sculpted. It enabled to transmit the identity and the social belief to the community. Indeed, these buildings were also located near wide open spaces for the practice of public events. Marketplaces and the exchange of goods were possible in the core area. However, some structures were segregated and had restricted access. Only the royal elite or the highest social classes could have access to the interior of the buildings. Causeways could link the non-domestic structures to the domestic ones. The presence of burials could have been found in ceremonial and political structures. They pertained to the ruling dynasty and contributed to the shared history of the city.

Public and private spaces were interconnected. On the one hand, the public spaces could have been open spaces such as plazas that enabled the meeting of the whole community. They were access-free, and some causeways could facilitate the movement of people from one space to another. These plazas were located at the focal point of the site and had the presence of sculpted stelae and altars. This permitted the creation of a shared identity among the community members. Public structures could have been civic and political buildings. They were composed of various wide rooms with benches (for the meeting of people) and columns (for the openness of the structure towards the exterior). It can happen for some sites that a

fortification encloses the city. Their duty was to protect the whole city. On the other hand, the private spaces could have been mainly residential and ceremonial structures. Indeed, these buildings could have the presence of cordholders, were located on elevated platforms, and/or had a stairway. They could have been enclosed by walls as a symbolic delimitation of a private space. Private buildings could appear in the core area, but also at the periphery of the city. Open spaces, such as courts, were used for private assemblies by family members and visitors. Access to private spaces was controlled, restricted, and segregated.

All these architectural features were not equally present in every site under study. The primary centres had the heart of the city, where the community could come together and share identical beliefs and identities. Causeways enabled easy access to this focal point. Public and private spaces were interconnected. In secondary sites, groupings of structures appeared. These groups were multifunctional and connected to another group through the causeways. No main central place of the city can be found. However, each group had a main plaza. The arrangement of structures made the secondary centres more restrictive. More private spaces were formed. The small settlements were probably not as planned as the other centres, whose purpose was mostly to deal with agricultural duties. Individual structures with a definite function were scattered within the landscape. The community could not come together within a main plaza. The small settlements had a lot of private spaces that were segregated and restricted to family members and their visitors.

Section 2: Artefacts

5) Artefact distribution

The following section will deal with the artefacts. Here, the aim will be to investigate where the artefacts were found (in structures, rooms, open spaces, and tombs) and how they were arranged to understand the probable function of the space or structure. For this, we will first look at the general information an artefact can give us. Then, we will focus on the different materiality of artefacts and their use. After that, the ornaments will be studied. Here, the shell and jade ornaments will be analysed as textile ones. Through iconography, we can try to reconstruct the perishable material artefacts that didn't remain in the archaeological remains. Finally, we will discuss the artefacts distribution and the arrangement of the archaeological sites under study.

5.1) General information

The general information about artefacts will be divided into four main themes. First, we will see how an artefact can be created and how we can deduce its purpose through the use-wear evidence (1). Then we will examine how artefacts were traded or taken symbolically as heirlooms (2). The distribution and arrangement of various tools could be specific and transmit the identity of their user and owner (3). Finally, the artefacts were found in different contexts (rooms, structures, open spaces, tombs, caches, etc) (4). The information about burials given in Chapter 3.6 will not be repeated here.

- (1) The elaboration of an artefact could be seen as a technical and social act (Alonso Olvera 2013: 68). Through the manufacturing process of an artefact, the tools necessary to elaborate on it can be deduced. For example, for a shell object, the indications such as worn surface, cut marks, perforation, incision, polishing, and buffing could give some information about the steps and tools needed (*ibid.*: 297). To work on jade artefacts, a person is required to pass through different stages of production, such as percussion, sawing, drilling, and incising. All these

steps required different tools adapted to the work to realise (Andrieu et al. 2014: 142). Within the stages of production of a tool, specialisation and segregation can appear. For example, the tool requires more delicate and detailed work that can be made by a certain artisan, or the different production stages were gender-specific (Alonso Olvera 2013: 71). Moreover, it could be seen and deduced that some secondary sites were producing some artefacts for primary centres. For example, Quirigua could have been used as a pottery manufacturer for Copan. Indeed, similar pottery styles and shapes were found in these two sites (Ashmore 2013: 119). The use of molds and preforms could be seen as proof of mass production (Andrieu et al. 2014: 151).

“Single item can have different function, acquire different meanings, and often change status during its life” (cited by Andrieu et al. 2014: 141). Artefacts could have no use-wear evidence. This could be due to their non-utilisation or to a use that didn’t leave any marks on them (Cadalen 2023: 234). Some artefacts were recycled. This means that if the tool was useless for one activity, it could have been appropriate for another (ibid.: 238).

- (2) Items and artefacts could have been exchanged or traded through tribute payment, marketplaces, feasts, marriage, and inheritance (Masson et al. 2002: 235f.; Chase et al. 2017: 202). The tool production made of certain materials was specific to some cities (Nichols 2012: 600). For example, obsidian, jade, and basalt stones were not available at every site and needed to be imported (ibid.: 599). The crafting of exotic goods was reserved for the higher social classes (Robin 2012: 137; Chase et al. 2017: 202). Moreover, some artefacts placed within tombs could have been used by the deceased during his lifetime, or they could have been placed in the burial as symbolic tools. This means that it was never used and had an heirloom purpose (Dacus 2005: 33). Incomplete skeletal remains could signify that the tomb was re-entered, and some parts were taken as heirlooms or for veneration (Goudiaby et al. 2020: 37).

- (3) The artefacts can reflect consciously or unconsciously the culture of a society under study (Halperin 2014: 13). They could also reflect the identity of the owner, and they could participate in the elaboration of the social networks (Jackson 2017: 584f.). For example, grave goods were placed with the deceased to express their relationship to the survivors (Ardren 2015: 103). They were placed by the living individuals. They are dealing with the identity of the person and how she saw the buried individual rather than how the deceased identified himself (ibid.: 105). Moreover, the grave goods could be an indicator of the status of the deceased. For example, the number of ceramics, the remains coloured with cinnabar, the presence of companions for the deceased, and the presence of valuable artefact materials (jade, *Spondylus*, obsidian, glyphs, animal remains, etc.) were mainly found with the higher social class's burials (Perez Lopez 2013: 71f.).

Furthermore, artefacts could have been distributed and arranged in a specific way that they were ascribed to people, to a function of a structure, or an activity. For example, some pre-contact sources affirmed that once the girl child had three months, she needed to participate in a ritual in which some artefacts would be associated with her gender (Gonzalez Cruz 2011: 237). At Blue Creek, Structure 4 had a cache containing marine shells, obsidian, and jade (Guderjan 2004: 240). At Aguateca, Structure M8-4 had an artefactual arrangement composed of utilitarian ceramics, manos, metate, and lithic tools that could have been used for food preparation (Inomata et al. 2002: 312). Shaman tools were composed of wands, sucking tubes, soul containers, masks, rattles, and drums (Nichols 2012: 766). Bundles seen in iconography could be composed of sacred paraphernalia used during rituals (Scherer 2015: 28).

- (4) Artefacts were left where they could have been used or where they could have been stored (Goldsmith 2006: 301). The artefacts found in various cities could have been remained by their inhabitants on purpose (they were too big to carry them), they were left because the inhabitants had to flee (they might have taken valorous objects with them), or they remained in place due to a crisis or natural phenomenon (warfare, volcanic eruption, etc.) (Cadalen 2023: 44; Inomata

1997: 343). The context of the discovery of an artefact could have been spread out in open spaces, structures, and rooms (a). We could also find artefacts in burials (b) and caches (c).

- (a) The artefactual context of discovery could be within the open spaces, structures, and rooms. Many artefacts were found on plazas, patios, and courtyards (Eberl 2014: 118). In Uxmal, the Great Platform of the Palace of the Governor had the presence of various artefacts such as figurines, ceramics, and spindle whorls (Uribe 1990: 33). In the Nunnery Quadrangle on its southern stairway, ceramics and lithics were found. They had traces of carbonisation. They might have been used for a fire ceremony (ibid.: 71).

Mainly, if artefacts were found in a residential context, their use was utilitarian. Meanwhile, if they were found in a non-residential context, their use was civic-ceremonial (Lewenstein 1987: 171). Residences contained metate, manos, spindle whorls, figurines, bowls, plates, cylinders, and bifaces. The kitchen tools were probably ceramics, but also some stones such as metate and manos, and supposedly many tools made of perishable material that is now lost (de Pierrebourg 1999: 26f.). The figurine may have been used for domestic rituals. The spindle whorls were used for spinning and weaving, and the bifaces could be used as knives (Eberl 2014: 87f.). Storage or activity areas contained a multitude of artefacts. If the artefacts could be used to produce some craft, it could be seen as a workshop. However, if the artefacts were used for various purposes and did not match one another, we could deduce that this space was used as a storage facility (ibid.: 123).

The artefact distribution and type could differ from one room to another, showing in this way that a multitude of activities could take place in different spaces (Inomata 1997: 342). Rooms without any concentration of artefacts could have been resting or sleeping places (Inomata et al. 2002: 309).

(b) Different types of burials could have been found. They could be simple (the remains were placed in a hole within the construction), a crypt (the remains were placed within a delimited space), or a tomb (the remains were placed within a definite room) (Perez Lopez 2013: 69). Different family members could have been buried within a single tomb (Ardren 2015: 92). Most of the elite members were buried within them (Perez Lopez 2013: 85). Tombs of royal elite members were big constructions, located on prominent structures (residences, palaces, ceremonial structures, near stelae), and contained sumptuous and various grave goods (many ceramics, artefacts of jade and shell, stingray spine, coloration of the remains with cinnabar) (Gonzalez Cruz 2011: 235; Welsh 1988: 25f.). Infant burials were mostly discovered within a large vessel (Ashmore 2013: 129; Ardren 2015: 98). Women were mostly interned in residential and palatial structures, whereas the men were mainly buried in civic-ceremonial buildings (Perez Lopez 2013: 84). Moreover, tombs were also located below the benches. The rulers were sitting on benches while they were governing. They could have been symbolically helped by their ancestors located under them (Scherer 2015: 209).

Tombs with grave goods could be found at the epicentre of the site, but some could also be discovered at the periphery. This means that not only elite members were buried with grave goods (Chase et al. 1992: 37f.). Men were buried with a wide array of artefacts reflecting their different daily activities. Women participated in fewer varied activities. The artefacts found in female burials pertained to the same set of objects (Ardren 2002: 76). Adult burials contained more grave goods than child ones (Welsh 1988: 217). The grave goods that could accompany elite individuals were earplugs, *Spondylus* shells, necklaces made of jade and/or pearls, masks, headdresses, ceramics, and cinnabar on their remains (Carrasco Vargas 2000: 29). Some individuals had a vessel or a mask placed over their skull to protect their identity (Ardren 2015: 92). Young women were buried with a shell on their pelvic area. This symbolised their purity before marriage. They could also have a

meaning as a primordial sea and underworld (Ardren 2002: 76). Sacrificial tools were discovered within burials (Perez Lopez 2013: 101).

Deceased people who died from natural causes were of all ages and had mostly grave goods with them. Sacrificial death can be identified through the predominance of young age deceased individuals who could have marks and abnormal position of their skeletal remains (Palomo et al. 2017: 307; Tiesler et al. 2004: 75). Sacrifices of accompanying people could have been done directly after the death of a higher elite person, as part of the grave goods, or as offerings for the remembrance of the deceased (Tiesler et al. 2004: 73f.). Mass graves could be proof of a public ritual sacrifice (Palomo et al. 2017: 315).

Furthermore, the grave goods enable us to have a glimpse into the funerary practices but also into the activities the deceased might have been involved in (Carrasco Vargas et al. 2000: 28). The dead body was placed on a wooden bed (ibid.: 29). During an internment ceremony, it was not unusual to put a primary burial with a secondary one (Houston 1998: 311). Secondary burials implied that the people reentered the tombs. With this practice, they could remove some grave goods and skeletal remains (Fitzsimmons 2010: 142). This removal could have been used to gain a war trophy or invoke the protection and remembrance of the ancestors (ibid.: 166). Funerals of the ruling elite were seen as a political event where the status of the deceased and the successor were legitimised (Ardren 2015: 103). Were the funerals of a ruler a public or private event? (Fitzsimmons 2010: 171). Was there a procession through the city and rituals for his passage to the Otherworld, or were there sacrifices for the accompanying individuals?

Seven examples of tombs found in some archaeological sites will be presented here.

- The Margarita tomb in Copan was the burial of the founder's wife. It contained jade ornaments (anklet, bead, collar, earplug, knee bands,

wristlets, armband, belt), jade figurines, shells, and ceramic offerings. The remains of textile and cinnabar were found on the woman's skeletal remains. Bone needles and weaving picks were also found (Ardren 2002: 96f.). Moreover, mirrors and grinding stones were discovered within the burial (ibid.: 99).

- The Tomb 7 from Monte Alban is a Zapotec city with over 500 grave goods assemblages (McCafferty et al. 1994: 143). It is included in this thesis due to its impressive amount and type of grave goods. This tomb will be discussed in more detail in the following chapter. It contained shell plaque, knives in the nasal cavity, jade and shell ornaments, and spinning and weaving tools (ibid.: 144f.).

- In Palenque, the discovery of the tomb of Pakal the Great counts as the most significant discoveries in the Americas until now (Schele et al. 1998: 95). Indeed, Pakal was placed within a richly decorated (with himself depicted as the Maize God, the ancestors, the Lords of the Night, etc) sarcophagus (ibid.: 116f.). The skeletal remains of the ruler were covered with cinnabar (ibid.: 125). He wore jade necklaces, rings, earplugs, masks, and headbands. Besides other grave goods, Jade figurines were also found in his tomb (ibid.: 127).

- The Temple 18 of Palenque contained a burial of a ruling elite and a woman from a lower social status (Couoh Hernandez et al. 2015: 80). The deceased ruler had a rich grave good assemblage (jade earplugs, a belt made of jade and shell, vases, small axes, etc.). His remains contained evidence of cinnabar applications (ibid.: 81).

- In Tikal, the North Acropolis contained a multitude of artefacts and graves such as ceramics, ornaments, lithics, shells, worked bones, obsidian, copper bells, and perishable material goods (Begel 2020: 167f.).

- The Tomb 1 of Uxul was found in the Palace Structure K2 (Devendahl et al. 2013: 22). Within this tomb, various ceramic pieces such as plates and vases were found. Through their epigraphy and iconography, they gave us some hints about the history and mythology (ibid.: 24).

- The Tomb 6 from Calakmul pertained to an elite woman. A mother and her son were accompanying the deceased woman on her journey to the

other life. She wore necklaces with a deity pendant, earplugs, and a mask. On her pelvis was placed a ceramic vase with obsidian, bells, and stingray spines (Carrasco Vargas et al. 2000: 30). Around the body, some utilitarian ceramics were placed (ibid.: 31).

- (c) Caches could have a special arrangement of artefacts to reconstruct the worldview and/or the cosmos layout. For example, the offering at K'axob was composed of four vessels disposed at the four corners and a bowl located at its centre (Mathews et al. 2004: 52). They could also be defined as a deliberate offering made to a structure or a person. The offerings could contain various artefacts or even skeletal remains from animals or humans (Kunen et al. 2002: 197). Some of these caches could have been used as a dedication or termination ritual (Gamez Diaz 2013: 162).

The caches could have been formed of different types. They could have been large ceramics containing multiple tools, small bowls, or objects placed within the construction fill of a structure (Chase et al. 2017: 194). In Caracol, various stelae had the presence of caches nearby composed of ceramics, points, figurines, jade ornaments, shells, and excentrics (Chase et al. 1987: 4). In Calakmul, Structure 20 is part of the Acropolis. In its superior part on the passageway, an offering was placed containing 17 pieces of ceramics, including seven drums (Carrasco Vargas et al. 2005: 42). Ballcourts could have been used as a place for offerings. For example, in Quirigua, a cache was discovered in the ballcourt field composed of a bowl containing pyrite, jade, and shell (Sharer 1983: 4). In Lamanai, on the ballcourt field, another cache was found containing jade, shell, and mercury (Houk 2015: 215).

5.2) Lithic artefacts

Lithic artefacts were found in abundance at the different sites. Their purpose was not fixed to one activity. They could have been modified intentionally through the process of stone retouching and reduction, or they could be modified

unintentionally through the use of wear (Goldsmith 2006: 158). These tools could then be used for a different activity. What can be claimed with most certainty is that the more a lithic artefact was thick, the more it worked with resistant material (Lewenstein 1987: 167). In the following lines, we will analyse a few lithic tool categories, such as (1) shipped stones, (2) ground stones, (3) polished stones, (4) burned stones, and (5) excentrics.

(1) Shipped stones could be used as knives, weapons, arrows, spears, flints, points, blades, and drills (Nichols 2012: 602; Willey 1975-1990: 102). The most frequently found obsidian tools were the flakes, blades, points, and chunks (Alonso Olvera 2013: 211). They were required for cutting wood, bone, and leather (Manzanilla 2009: 14). Blades were used for specialised work (Andrieu 2014: 2). They could be used for cutting, meat processing, drilling, perforating, scrapping, rituals, wood and shell carving, and/or as arrows (Inomata 2008: 229; Alonso Olvera 2013: 213; Aoyama 2007: 11; Pollock 1962: 368; Aoyama 2007: 9; Johnson et al. 2021: 47). In Aguateca and Joya de Ceren we could observe that the blades were stored on the roof of the residences (Aoyama 2007: 9).

Blades and bifaces were mostly found within the core area rather than in the periphery (Sharer 1983: 93). This means that the activities requiring these tools were probably practised in the core area by higher social classes. Bifaces were multifunctional. They could have been used for agriculture, construction, as axes or knives, etc. (Andrieu 2014: 5; Inomata 2008: 210; Eberl 2014: 243). For example, the same knife could have been used for bloodletting rituals and for cutting hairs (Cadalen 2023: 97). Some activities, such as the polishing activity, could have required a polisher and a biface (Eberl 2014: 110) or the mineral crafting activity which could have been composed of biface, point, scraper, nucleus, pick, and blade (Cadalen 2023: 411).

Celts could have been used as a machete or biface (Archive UAC: *lítica de Calakmul*). Its purpose could be for working woods, polishing ceramics, carving stones, and/ or the practice of ceremonies (Inomata 2008: 256; Willey 1975-1990: 86; Aoyama 2007: 16f.). Large celts could have been used as ritual

objects, whereas the smaller ones were used for rubbing and scrapping (Pollock 1962: 350).

The lithic crafting tools required hammerstones, flakes, drills, and antlers (Archive UAC: *lítica de Calakmul*; Johnson et al. 2021: 45; Eberl 2014: 105). Hammerstones were probably used for stonework, abrasion, pounding, and pecking (Pollock 1962: 343). Flakes were used for cutting (Inomata 2008: 231). Chert could have the purpose for meat processing, bone, wood, or shell carving, stonework, and digging (Aoyama 2007: 12). Drills were used to grave and punch (Pollock 1962: 362).

Weapons used by warriors could have been composed of bow, arrow, dart, spear-thrower, spear, sword, and dagger (Chase et al. 2013: 35). Here again, the points could be multifunctional. They could be used as weapons, for carvings, and for shell or bone ornament production (Aoyama 2007: 12). To sharpen points and knives, a sharpener or a whetstone could be useful (Archive UAC: *lítica de Calakmul*; Pollock 1962: 349).

- (2) Ground stones could be composed of mano and metate (Nichols 2012: 603). Metates could have been found on platforms, in rooms, in construction fill, and near causeways (Götz 1998: 9f.). Two different types of metate existed: utilitarian and ceremonial. On the one hand, the utilitarian one was composed of a big block of stone located in residences. It didn't move and was used for food preparation. On the other hand, the ceremonial metate was small and situated in ceremonial structures. It was a portable metate used for ritual food preparation (Archive UAC información 14). Moreover, they could also grind minerals to dye textiles or pigments and be used to process chert and shells (Alonso Olvera 2013: 240). Once the metate was no longer used as a grinding stone, it could have the purpose of a water catcher or as a construction element (Gallareta Negron 2013: 198).

Manos and metate had a main purpose for food preparation (Goldsmith 2006: 247; Inomata et al. 2002: 308; Inomata 2010: 74f.; Sharer 1979: 58). The

presence of metates and manos could identify the area as a kitchen or food preparation space (Gallareta Negron 2013: 173; Willey 1975-1990: 61 and 190; Inomata et al. 2018: 43). The arrangement of manos and metates could be found in domestic structures (Eberl 2014: 87f.). However, their presence in tombs might have been an indication of their belief that they were made of maize (Scherer 2015: 158). Moreover, some scholars believed that pottery production could be associated with food production. Indeed, both activities need a fireplace (Eberl 2014: 158). The arrangement of the artefacts, such as ceramic, chipped stone, hammerstone, pigment, obsidian blade, mano, and metate from Structure M4-6 in Nacimiento can be an example (ibid.: 170).

As the metates lasted longer than the manos, these could have been reutilised as pestles (Inomata 2008: 241f.). Mortar and pestle were used to grind some fine pigments (Inomata 2008: 254; Inomata et al. 2002: 313; Aoyama 2007: 19). In addition, small-scale metate and manos could have had a different purpose, such as grinding pigments or grinding maize for a ceremonial event (Inomata 2008: 249). The paraphernalia of a scribe could have been composed of small mortars, pestles, and pots for their ink (Inomata 1997: 345; Emery et al. 2007: 81).

- (3) Polished stones were used for beads, earplugs, pendants, plaques, mirrors, mosaics, idols, and some vases (Nichols 2012: 604). The presence of a mirror in a tomb could indicate the high status of the person interned (Vidal Lorenzo et al. 2016: 232). They were mainly found in women's burials (Perez Lopez 2013: 104). Mirrors could have had a function in divination, decoration, and/or they could represent the Otherworld that can't be passed through (Fitzsimmons 2010: 96; Scherer 2015: 132; Chase et al. 2017: 200).
- (4) Burned stones had a defined purpose for lime, cement, and stucco (Nichols 2012: 605). For example, the mason tool kit was composed of rubbing and pounding stones (Willey 1975-1990: 56).

(5) Excentrics were mostly nonfunctional artefacts. This category of tools was formed of lithics with unusual aspects (Andrieu 2014: 6). They were found in ceremonial structures (Ashmore 2013: 125; Houk 2015: 227).

The following graph is a summary of the lithic artefacts part.

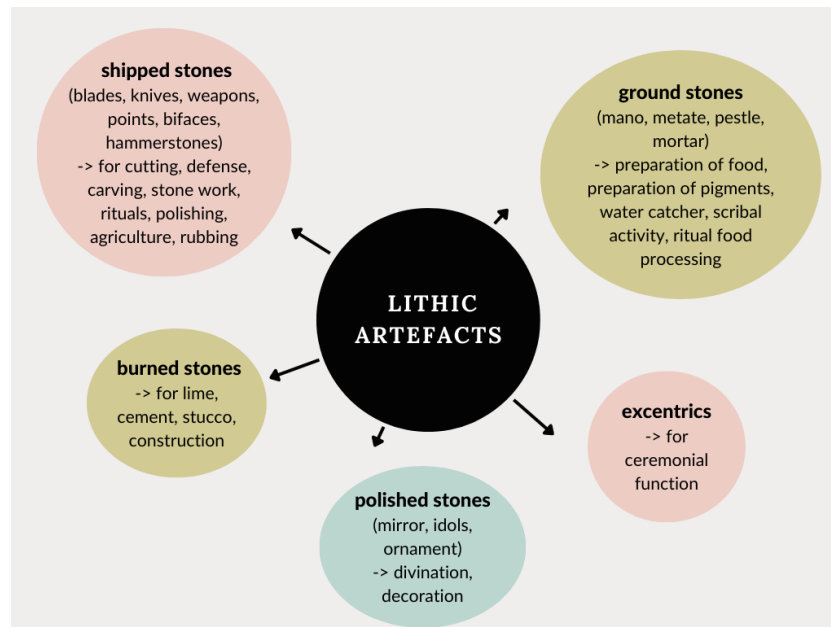


Figure 85: Graph of lithic artefacts

5.3) Ceramic artefacts

The next part deals with ceramic artefacts. The ceramics were the most common artefact within the archaeological remains (Bonnafox 2008: 91). After Bonnafox, the elaboration of a ceramic vessel could be a metaphor for the cosmic creation. Indeed, in the *Popol Vuh*, the Earth was initially humid and swampy. This Earth became dry with the sun, and people could be created (ibid.: 104). The ceramic artefacts could be divided into containers and non-containers.

The containers were used for food production, cooking, storage, and service (Nichols 2012: 609f.), but also for feasting events and termination rituals (Loughmiller-Newman 2013: 63f.). The containers could be, on the one hand, sumptuous (Loughmiller-Newman 2013: 59; Bonnafox 2008: 81). Big shaped, tall

and cylindrical vessel could be related to status and belonged to the sumptuous vessels (Loughmiller-Newman 2013: 6; Gamez Diaz 2013: 109). Serving vessels such as plates, bowls, cups, and dishes were part of a feasting event (Loughmiller-Newman 2013: 72f.; Wurzburg 1991: 210; Webster et al. 1997: 56; Robin 2012: 142). Feasting events organised by the elite could have a ceremonial and/or political purpose (alliance, negotiation, ritual, exchange of goods, affirming the status of the elites, etc.) (Bonnafox 2008: 94f.; Loughmiller-Newman 2013: 150f.). The community identity can be reinforced through the collective feasts (Tate 1992: 21). Drinks the elite consumed could have been made of maize and cacao (Loughmiller-Newman 2013: 100).

Incense burners were used for ceremonial purposes such as the veneration of gods or ancestors for example (Aimers 2013: 203; Inomata 2010: 149; Sharer 1979: 60; Webster et al. 1997: 57). Vases were also linked to ritual activities (Carrasco Vargas et al. 2000: 35). These vases, as we saw earlier, could have a PSS indicating the name of the vessel owner or the product it contained (Loughmiller-Newman 2013: 77). Some structures such as temples or palaces had the presence of copal or incense burner on the stairs or at the entrance. This would enable us to illuminate them at night (Archive UAC Folan et al. Structure 2B).

Flasks or miniature vases could be used as liquid containers, probably for perfumes or pigments, but also as powder containers for plants and tobacco (Loughmiller-Newman 2013: 74 and 299; Chase et al. 2020: 80; Grube et al. 2006: 189f.). The powder of tobacco was an attribute of the priests (Grube et al. 2006: 189f.). The preparation of pigments and the presence of ink pots could be an indication of a scribal or administrative activity taking place (Inomata 2010: 74 and 78). The paraphernalia of a scribe could have been composed of small mortars, pestles, and pots (Inomata 1997: 345; Emery et al. 2007: 81).

If the floor of a structure was covered by artefacts made of sherds, the structure was ritually terminated before abandonment (Zralka et al. 2014: 94). Termination rituals were the smashing of vessels on floors, entrances, and stairways to deanimate a structure. This ritual was mainly executed within the elite context (Gamez Diaz 2013: 173f.). For example, Yula Structure 1 had a concentration of ceramic remains on its east side (Bruce 1989: 16).

On the other hand, ceramic containers could be utilitarian (Loughmiller-Newman 2013: 59; Bonnafox 2008: 81). Utilitarian vessels were mainly used to prepare food or to store food supplies such as jars, pots, metates, manos, bowls, plates (Gamez Diaz 2013: 106; Eberl 2014: 215; Inomata 2010: 74f.; Inomata 2010: 89). For example, jars were used to store or contain liquids, but it could also have a purpose to carry water (Aimers 2013: 77; Webster et al. 1997: 56; Wurzburg 1991: 210; Loughmiller-Newman 2013: 74; Inomata et al. 2002: 308). The food that was probably prepared was tortillas and pozole (Loughmiller-Newman 2013: 120). Beans, squash, and chili were also frequently found as basic nutrition by the Mayans (ibid.: 129f.). The utilitarian ceramics were mainly found in residential structures. For example, the residences contained manos, metates, bowls, and plates, which could be considered part of the kitchen tools (Eberl 2014: 87f.).

Containers could have been found in funerary contexts (Loughmiller-Newman 2013: 7). Ceramics found in tombs could serve to feed the dead for their journey to the Otherworld (Fitzsimmons 2010: 86). For example, in the tombs in Calakmul vessels were placed there with food and drinks for the deceased (Archive UAC Gallegos excavation Structure 17). Moreover, bowls or masks placed over the skull enabled them to protect their identity (Fitzsimmons 2010: 92). Sumptuous ceramics could also have been placed in tombs with their owner. The vessels could contain glyphs with the name of their owner. This could lead the archaeologists to identify the identity of the deceased person (Houston 1998: 376). Until now, we have found out that ceramic artefacts placed as grave goods were mainly discovered with women individuals (Palomo et al. 2017: 315).

The non-container ceramic artefacts included figurines, musical instruments, stamps, whorls, and seals (Nichols 2012: 609f.). For example, disks could have been used as gaming pieces, for the spindle whorl, as a counter, as a mosaic element, etc (Taschek 1994: 219). Music instruments were mainly linked to the ceremonial structures and played during rituals or feasts (Archive UAC Zapata; Chase et al. 2000: 69; Eberl 2014: 86). Turtle carapaces could symbolise the Earth's surface

from which the Maize God emerged and/or they could be used as drums for rituals (Robin 2012: 236).

Figurines were found in residences (Willey 1975-1990: 9). They may have been used for domestic rituals (Eberl 2014: 87f.). Finely ornamented and executed figurines were mostly found in an elite context (Halperin 2014: 152; Gamez Diaz 2013: 186 and 199). However, their geographical distribution among the Maya sites was different. For example, in the Northern Lowlands, a lower number of figurines were found than in the Southern Lowlands (Halperin 2014: 149). Figurines were mostly discovered on the building's east side, which had a ceremonial function (Gamez Diaz 2013: 187; Sharer 1979: 60). The presence of figurine molds could show an area of figurine production (Eberl 2014: 196). Figurines could be present during ceremonies, represent some offices or political roles, or could be used as toys and musical instruments (Halperin 2014: 45 and 186; Inomata 2014: 11; Gallegos 2012: 95). Most of the figurines were formed as whistles. They had, therefore, “sacred and magical qualities” (cited by Halperin 2014: 203). The figurines could also be used to prove the gendered practice of activities (ibid.: 54f.). This theme will be seen in section 3 of this dissertation.

The following graph represents the summary of the ceramic artefacts.

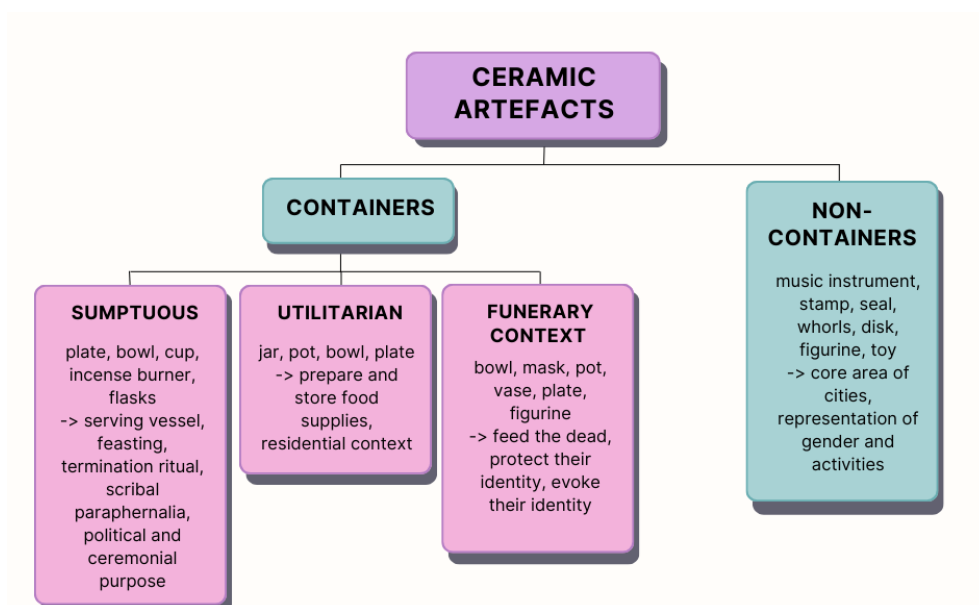


Figure 86: Graph of ceramic artefacts

5.4) Bone and perishable artefacts

Bone and perishable artefacts were challenging to discover due to their scarcity and poor preservation. Indeed, shell and bone artefacts, as well as figurines and whistles, were mostly found within the higher-status classes of society (Gamez Diaz 2013: 186 and 199). Wood and textile elements will not be treated here. The crafting of bone, shell, and jade was seen as luxurious (Cadalen 2023: 49). Bone artefacts could have been composed of awl, pin, tube, flute, needle, bloodletter, and pendant (Inomata 2008: 259; Inomata 2014: 127f.).

- Stingray spines were used mainly as bloodletters and knives for the bloodletting ritual to enact the act of creation and rebirth (Stone et al. 2011: 25; Taschek 1994: 121). Copper bells were found in Postclassic sites and had a purpose in rituals (Taschek 1994: 132).

- Needles could have been used for multiple purposes, not only for textile production (Chase et al. 2008: 134). They could have been carved and were only found in a funerary context (Dacus 2005: 15). Carved long bones could also be used as a sceptre (Inomata 2014: 135). Pins could function as a needle and/or to tighten the hair up (Taschek 1994: 110).

- Deers were domesticated and hunted for daily food supply (Alonso Olvera 2013: 196). From this animal and others such as jaguar, armadillo, peccary, etc, various tools could be made. For example, a deer awl could have been used in activities requiring punching and leverage (Taschek 1994: 113). Antlers could have a purpose for rubbing and polishing (ibid.: 120). A spatula was used for mixing, spreading, and moving small quantities (ibid.: 116). Bone tubes could have been used for the enema ritual (Gamez Diaz 2013: 140f.).

- The analysis of teeth and their wear can inform us about the diet of the ancient population and whether some food shortages took place in the early years. Some diseases could be deduced from the teeth. One can investigate whether the teeth were used only for eating or crafting (holding some objects, used as knives, necklaces, etc.) (Archive UAC Tiesler reporte restos humanos).

The crafting of perishable materials is challenging to identify due to their poor preservation. Their production and the agency responsible for it are, therefore, invisible. For example, women could have used more perishable materials in their daily use. Due to poor preservation, this information is lost, and with it, some activities are realised by women, making them more invisible in the investigations (Aoyama 2007: 4). The iconography or epigraphy can give hints about their existence (Jackson 2017: 597). It can happen that the preservation conditions were optimal, such as carbonisation or a dry and permeable space. Some preserved codex fragments were found in tombs of a few sites, as was the case in Altun Ha Structure A1 Tomb 1 (Pendergast 1979: 76). In Calakmul Structure 2B, carbonised copal and pieces of an incense burner were found on the stairway and entrance. This would enable the illumination of the building at night (Archive UAC Folan et al. Structure 2B).

The most exchanged goods were of perishable material (Masson et al. 2002: 232). Feathers were archaeologically barely found due to their poor preservation. However, they can be seen in the iconography. They symbolised the Celestial realm, the prestige, and the higher status of the people wearing them. Feathers were not available everywhere, which is why they were traded on markets or through tribute payment (Segovia Liga 2006: 73).

In addition, some prominent individuals from the community were interred while wearing jaguar pelts and paws. Indeed, only a few examples remained due to the nature of the material, which was made of perishable material (Houston 1998: 304). Jaguar pelts and mats were objects related to the royal authority and their ideology (Inomata et al. 2018: 208f.). In Calakmul, little evidence remains that the corpse was enveloped in a kind of bundle (Archive UAC Coyoc entierros de Calakmul).

The following graph will sum up the bone and perishable artefacts.

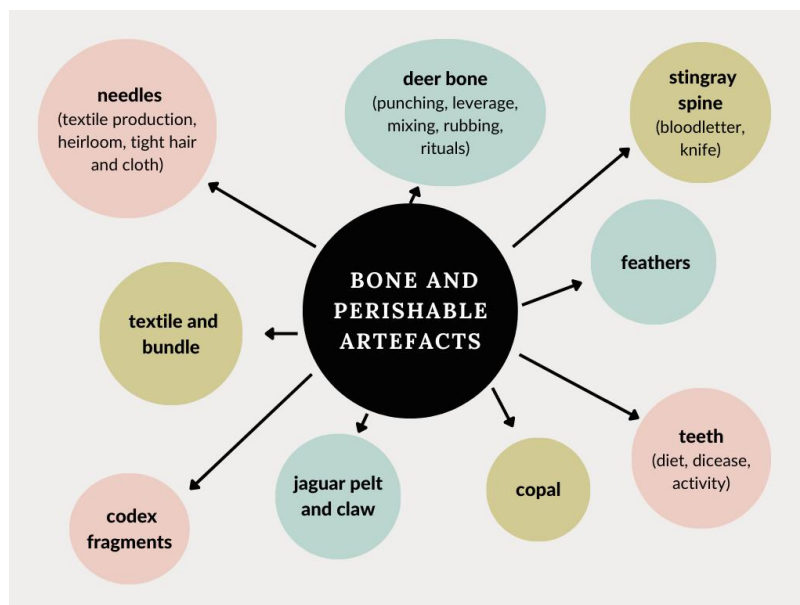


Figure 87: Graph of bone and perishable artefacts

5.5) Ornaments

The next category of artefacts will be the ornaments. First, the jade and shell ornaments will be analysed as jewellery. Then, the textile ornaments will be in focus. Finally, a comparative study of the wearing of ornaments through iconography will be done.

5.5.1) Jade and shell ornaments

In the first moment, the jade and shell ornaments will be investigated. Until now, these ornaments were mainly found within the elitist and funerary context (Carter et al. 2020: 116). The grave goods and adornments found within buried individuals could give back the status and activities this person was involved in during his life (Fitzsimmons 2010: 80). Indeed, jade and shell were goods that could qualify the owner as pertaining to the higher social classes of the society (Masson et al. 2002: 45; Dacus 2005: 27). They were seen as luxurious goods (Cadalen 2023: 49). For example, La Reina Roja from Palenque was buried in a sarcophagus containing more than 700 jade pieces (Lopez Jimenez 2004: 67). In her tomb she wore necklaces, bracelets, a belt, headdress, and two masks (ibid.: 69). Also, shell

artefacts could be composed of necklaces, ring, belt, and earplug (Inomata 2008: 258).

The two materialities had a special meaning for the Mayans. Jade was a green precious stone whose symbolism was to evoke the vital liquid of life (Carraco Vargas et al. 2000: 33). Jade was used as a general term to identify a certain type of greenstone (Kovacevich et al. 2019: 458). It was present in Mesoamerica and China (Digby 1972: 36). The jade coming from Mesoamerica was mostly jadeite that could have also been composed of other minerals such as omphacite, for example (Kovacevich et al. 2019: 459; Digby 1972: 41). The jade nephrite was not found in Mesoamerica (Digby 1972: 40). The author is therefore using the general term of jade to discuss the jadeite coming from Mesoamerica. Shells could have been used as food, but they could also symbolise the aquatic world from the Underworld or the turtle carapace from which the Maize God emerged (Masson et al. 2002: 72; Chase et al. 2017: 200). They were associated with women for their reproduction duty and were mostly found with their grave goods (Segovia Liga 2006: 74; Masson et al. 2002: 67).

Furthermore, shells and jade objects were often traded and exchanged as a tribute or political good (Masson et al. 2002: 79). However, they could also be passed from generation to generation and form an heirloom (Carter et al. 2020: 119). For example, the jade ik-shaped pendant, present in various sites such as Nim Li Punit Tomb 5, was dedicated to a ruler. This pendant was discovered in a tomb whose owner was a successor of the ruler for whom the pendant was dedicated (Awe et al. 2012: 203).

In the following, the main ornaments discovered will be into the focus and analysed in more detail, starting with the ornaments from the top towards the feet (head (1); face (2); neck (3), arms (4); waist (5); and feet (6)).

(1) The headdresses were used to symbolise the identity, status, and role of the individuals (Carter et al. 2020: 51). Iconographically, they were the ornament

that was the most represented, and it was also mostly depicted on women (Perez Lopez 2013: 95). Masks were placed on the head of the dead individual. It was mainly worn by men (ibid.: 92f.). Some masks, such as the *xoc* mask, were used for rituals. Here, it could have been used during the ritual for the Earth Mother. When it was used, it symbolised the women (Breton et al. 2003: 472).

- (2) In the face, three different ornaments could have been worn. Earplugs are located on the perforated earlobe of a person (Carter et al. 2020: 88). They could symbolise that the person, mostly pertaining to the elite social class, is hearing what the community needs and says (ibid.: 101). Noseplugs were ornaments that were placed on a pierced nose (ibid.: 96). In addition, the bezote is a kind of labial plug where an ornament was placed within the pierced lip (Perez Lopez 2013: 74). In the iconography and funerary context, noseplugs and lipplugs were seen only on men. Indeed, they symbolised militaristic and masculine values for the Maya (ibid.: 100).
- (3) On the neck, necklaces and pectorals were found. On the one hand, necklaces could be composed of different materials such as leather, cord, paper, jade, shell, etc. It encircled the neck and could contain some pendants (Carter et al. 2020: 105). Pendants could be formed as figurines, glyphs, plaques, or trophy heads and were hung on a person's chest (ibid.: 108). On the other hand, pectorals were a kind of necklace that was symmetrical and long, covering the pectoral of a person. It was mainly formed by tube beads and plaques (ibid.: 109). Pectorals were more used by the men who had a ruling activity (Carter et al. 2020: 115; Tremain 2017: 209).
- (4) On the arms, rings, and bracelets can be used as ornaments. Rings were placed on the fingers. The elite mostly wore them (Carter et al. 2020: 127). Bracelets were put on the wrist. Through the iconography and funerary context, we can assume that the women might have used them more (Perez Lopez 2013: 92).
- (5) On the waist, a belt could be worn. They could be used to bind the soul to the body (Carter et al. 2020: 133). Belts did not show the identity of the person; instead, they enabled them to transmit the role the person was involved in (ibid.: 134). Indeed, from the iconography and burial context, we can say that they

were mainly used by royal elite individuals (ibid.: 130). From the monumental depictions, we can see that men wore more elaborate belts than women (Perez Lopez 2013: 96). In addition, from the funerary context, we could find, in many cases, the placement of a *Spondylus* shell on the pelvis of the dead person. The *Spondylus* was a shell type that had a symbol of vitality and rebirth. It was mainly seen on the woman's pelvis for her fertility and reproduction meaning (Scherer 2015: 114).

- (6) On the feet, people could wear sandals and anklets. They might have been only worn by men (Perez Lopez 2013: 92f.; Tremain 2017: 212).

To conclude, the following chart will resume the part of jade and shell ornaments.

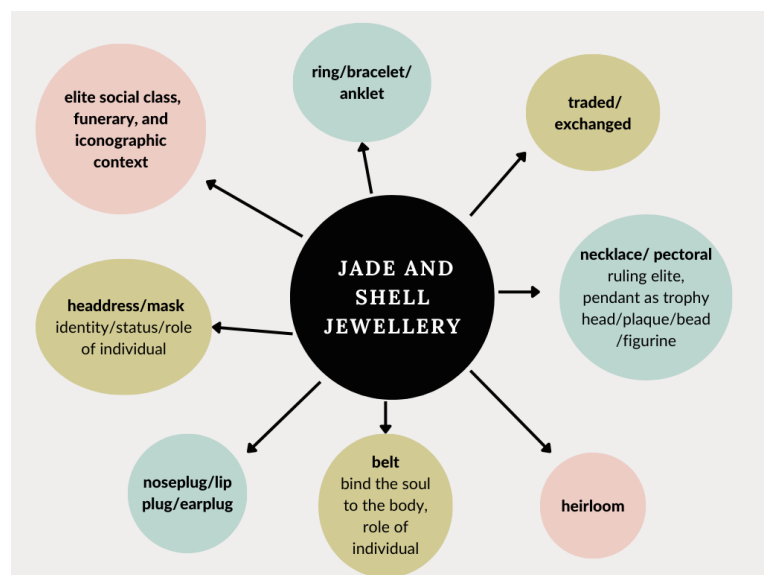


Figure 88: Graph of jade and shell jewellery

5.5.2) Textile ornaments

It was not only jade and shell ornaments that ornamented the Maya. They also wore different types of clothes. Due to the poor preservation of textiles in the Maya area, only a few small fragments were found. Corpses were dressed, and some textile prints were preserved on skeletal remains. Moreover, people could not be buried naked. It would be an insult because mostly only the war captives were naked (Fitzsimmons 2010: 76). The materiality of the threads used could define the status

of the person wearing them. For example, cotton clothes were mostly worn by the elite, whereas the commoners wore maguey clothes (Chase et al. 2008: 130; Alonso Olvera 2013: 351).

Some insights into how they were clothed could be gained through the iconographical depictions. Even though only the higher social classes were represented, it enabled us to understand how they could have been dressed. Huipil and sarong are the main female garments depicted in ceramics (Tremain 2017: 190). A greater multitude of ornaments were worn by men (Vidal Lorenzo et al. 2016: 234). The more a person wore dresses, the more their age might have been advanced (Tremain 2017: 116). Moreover, the Mayans wore some kind of sandal. They were made of different materials and shapes, such as simple sandals, woven sandals, and animal head sandals (Carter et al. 2020: 141f.). Every social class of the community could have worn sandals. However, the animal head sandals were reserved for the higher social class of the community (ibid.: 143). Women were also used to wear sandals (Vidal Lorenzo et al. 2016: 233).

The textile production artefacts remain more or less complete so that their role and function can be assigned to them. The textile production activity could encompass various steps such as spinning, weaving, dying, embroidery, and sewing (Nichols 2012: 629f.).

The spinning tool kit was composed of spindles and whorls of different shapes, containers “or a way of maintaining the fibre while spinning, containers or a way of supporting the spindle if the supported spinning technique is used” (cited by Ardren 2002: 54). Maguey and cotton seeds were the raw material used for the production of cloth (ibid.: 57). The more the whorl was light and small, the more it was used for cotton material. Larger ones were used for the maguey threads (Ardren 2002: 61; Nichols 2012: 630; Alonso Olvera 2013: 343). Spindle whorls made of stone or ceramic were mainly recovered from the core area of the city. However, perishable spindle whorls could have been used at the periphery of the site and were

lost due to their materiality and poor preservation (Chase et al. 2008: 131). In various sites, the spindle whorls were recovered within the same location as the kitchen tools (Eberl 2014: 102).

The weaving tool kit could have been composed of wooden batten, needles, awls, picks, whorls, perforators, pins, and disks (Nichols 2012: 630; Inomata et al. 2002: 308; Ardren 2002: 63). However, some of these tools could have different uses such as the needles and pins for example (Halperin 2008: 114). Sherd disks were used for fibre production (Ardren 2002: 60). Some authors believe that the spindle, whorls, and batten could have been linked metaphorically to the weapons (Nichols 2012: 633). Indeed, they could have been seen as the counterpart of the male arms. The weaving tools are the arms of the women.

The following chart sums up information about textile ornaments.

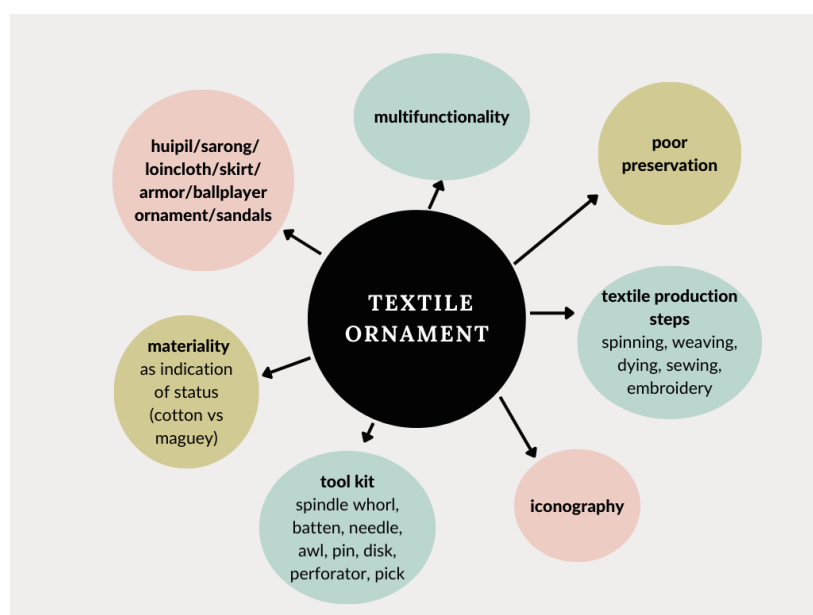


Figure 89: Graph of textile ornaments

5.5.3) Ornament comparison from iconographic data

In this part, the aim will be to compare the ornament's depictions (jewellery and textiles) through the iconographical record. In the Maya area, there was homogeneity in their art and in the way they represented things (Spinden 1975: 16).

Some variations between regions and cities could occur, but they were mainly insignificant to our understanding of the scenes (ibid.: 23). Generally, two types of scenes were depicted: mystical and daily life (Chinchilla Samayoa 1988: 151). Moreover, the representation of monuments during the Classic period projected the ideal society by which the population could compare itself. The rulers were at the origin of the sculptures and art. Images were seen as a medium for the elite social currency (Joyce 2008: 99). The elite also used art to show the ideology they followed. The scenes depicted on the vessels, lintels, murals, and stelae enable an interpretation of the daily life the elite could have had in a Maya society (Gamboa Cetina et al. 2013: 90). This topic will be discussed in Section 3.

The clothes were indicators of social status, role or activity, and gender. It also shows the identity of a person in society (Romero 2016: 42). The men were represented wearing a skirt or loincloth. Women could not only be identified through their dress but also through their biological characteristics (long hair, breasts, etc) (Tremain 2017: 92f.). The huipil was a common dress type. They expressed not only iconography but also iconology through their motives. These motives emphasized their identity and culture. Besides, the huipil shows the creativity of the women and the history of the person who is wearing it (past, present, and future) (Otzoy 1992: 104). The differentiation of both genders in iconography seems easy. However, for some rituals, the Mayas had a fluidity in genders. This means that a person could wear masculine and feminine attributes.



Figure 90: Stela H of Copan

For example, the Stela H of Copan (Figure 90) represents a man (due to the absence of breasts) dressed in a skirt, which is mainly ascribed to women. The attributes of both genders are represented and form a complementarity (Baudez 1994: 60f.).

For this ornamental comparison, the focus will lie on the following media:

- The stela is a large block of stone where different events (calendrical, historical, dynastical, ceremonial) are represented. It was located in front of temples, palaces, or public plazas (Patrois 2008: 39 and 49; Christie 2005: 277; Spinden 1975: 129; Miller 1999: 107).

- The lintel is a block of stone that was placed on the doorways of palaces, temples, or elite households. Ritual and historical scenes were depicted (Patrois 2008: 42 and 55).
- The mural depicts a scene on a structure's interior or exterior wall (Carrasco Vargas et al. 2012: 26).
- The ceramic could have been utilitarian or sumptuous (Spinden 1975: 133). Only the sumptuous one will be studied for this analysis because of its iconographic elements. The representations present on the ceramics could have pertained to the supernatural realm, dynastic events, or daily life (Bonnafox 2008: 81f.).
- The figurine can be found in households and/or in deposits. It could depict supernatural beings and humans or gods involved in an activity (Halperin 2014: 1f.).

The corpus (Annex 4.1 to Annex 4.4) needed for this study is composed of the iconographical data from the visited sites by the author. In addition, pieces exposed in the museums that were described in the first chapters also count in this corpus. Furthermore, this study includes Justin Kerr's corpus of the Jaina figurines and the ceramic rollouts. The bibliography needed for this comparison can be found in Annex 4.6.

Limitations could occur. Some tools are incomplete, such as the heads of the figurines are not found, the body is lost, the ceramics are broken, or the figures are eroded. This is also the case for the stone monuments. For a majority of artefacts, their context is lost. We cannot say which site they come from, which precise datation, and if they pertain to a funerary good or a daily use context. Moreover, from the sites the author visited and investigated, a special iconographical representation was present, or a special depiction of media was preferred. For example, Tonina focused on a captive depiction, whereas the Yucatan Peninsula lacked the representation of rulers on stone monuments.

Despite these obstacles to keep in mind, the author realised the comparison of ornaments present in the iconography and presented it as a table (Figure 91).

ATTRIBUTES	STONE MONUMENTS								FIGURINES							
GENDER	male 332		female 50		multiple characters 38				male 118		female 55		multiple characters 4			
MOTIVES ON DRESSES	yes 149				no 260				yes 42				no 130			
PRESENCE OF HEADRESSES	yes 355				no 52				yes 154				no 19			
ORNAMENT AS JEWELLERY	earplug 317	armband 308	collar 347	noseplug 120		anklet 200	sandals 196	belt 289	earplug 164	armband 75	collar 139	noseplug 5		anklet 21	sandals 5	belt 39
ORNAMENT AS CLOTHING	huipil 33	sash and skirt 7	sarong 5	skirt 11	loincloth 284	armor 42	naked 16	ballgame implement 8	huipil 32	sash and skirt 1	sarong 5	skirt 17	loincloth 93	armor 13	naked 6	ballcourt implement 3

ATTRIBUTES	CERAMIC ROLLOUT							
GENDER	male 23		female 17		multiple characters 94			
MOTIVES ON DRESSES	yes 99				no 26			
PRESENCE OF HEADRESSES	yes 122				no 4			
ORNAMENT AS JEWELLERY	earplug 121	armband 99	collar 116	noseplug 46		anklet 23	sandals 20	belt 52
ORNAMENT AS CLOTHING	huipil 41	sash and skirt 0	sarong 40	skirt 25	loincloth 110	armor 1	naked 18	ballcourt implement 0

Figure 91: Table of ornaments present from the stone monuments, figurines, and ceramic rollouts through their iconography

This table analyses the gender of the characters, the motives for their dresses, the presence of headdresses, and the ornaments they wear (textile and jewellery) in function of the stone monuments, figurines, and ceramic rollouts. Some categories need further explanation. For example, the author defines a huipil as a large piece of cloth covering the whole body of a woman; the sash and skirt is composed of two pieces of cloth also covering the entire body of a woman; the sarong is a piece of cloth wrapped around the body of a woman letting her arms and shoulders free; and the skirt is a smaller piece of cloth covering women from the waist to the tibia.

What can be seen from this investigation is that males were mainly depicted in every kind of media. This could be due to the patriarchal system of the Maya community. However, female characters were not absent. They were mainly present in the figurines. In the ceramics and stone monuments, they were also slightly represented. Moreover, characters were depicted alone on stone monuments and figurines, whereas ceramic rollouts represented multiple figures. This could be due to the function and topic of the different media. Figurines could have been used as toys or as domestic rituals. A single character is needed for it. Stone monuments depict a view of a single event that shows the advantage of the royal person. It represents the best facet of them. Ceramic rollouts can depict a complete scene or event due to their materiality and portability. It is then easier to portray various characters.

Concerning the textile ornaments, we can see that men almost always wore loincloths in different media. They also wear armor in stone monuments. This could be due to the prestige and strength they want to transmit through this specific medium. For women, their clothes are more variable in the type of media. On stone monuments, they wore a huipil and sash and skirt; meanwhile, on figurines, they wore a huipil and skirt; and on ceramic rollouts, a huipil and sarong. This variability could be due to the topic transmitted. For example, the stone monuments represent more ritual and formal contexts that could show expectations and not always real life. Figurines and ceramics were more private artefacts that could depict daily activities. Furthermore, the clothes could have some motives on them. Stone monuments and figurines depicted clothes without

motives, whereas the ceramic rollouts had mainly clothing with motives. This could be the case of the easier way to represent details and colours on a painted support than on an incised and modelled one. The ceramics were sumptuous goods that could have been exchanged and used as elitist social currency. The more detail and colour, the more value it had. In addition, ballgame implements were found on stone monuments, ceramics, and figurines. This game or ritual was played mainly by elitist persons due to the central location of the fields. Their importance was too high to be accessible to everyone. However, it could be possible that non-elite people played the game in a courtyard or a non-formalised ballgame field. Moreover, nakedness was a taboo for the Maya. However, naked individuals were depicted on stone monuments and ceramic rollouts. They occurred on two different topics: war captives and the myth of ladies dressing the Maize God.

The jewellery present in the iconography is varied. As we saw earlier in this doctoral thesis, the identity and focus of attention for the Maya were on the head. It is then with no surprise that almost all the characters wore a headdress, earplugs, collars, and armbands. Noseplugs were present on stone monuments. Noseplugs were worn only by the ruling elite. It could be part of the identification of high status. Also, the royal elite on stone monuments were shown with all their attire to impress their community and transmit their wealth and power. Some ceramic rollouts had characters wearing noseplugs. This could be due to the sumptuousness of certain goods used as social currency. Figurines had almost no noseplugs. It was a toy and accessible to everyone. No prestige or power demonstration was needed. In addition, anklets, sandals, and belts were more commonly depicted on stone monuments. The anklets and sandals could be used as the noseplugs to show the figure's status, power, and strength. Belts could be used to hang trophy heads won by rulers during wars, be designed with the *pop* motif for the rulership, or be used to attach feathered backracks. Ceramic rollouts depict more belts than figurines. Again, they represented some elitist and sumptuous narratives used in trades and social currency. Figurines were used in less official scenes. No significant details were needed.

To conclude, with this comparison of ornaments present in iconography, we can see that textiles and jewellery were used in different ways. They depend on the topic and the location. Some scenes were used to glorify the deeds of the rulers; others were used to show the prestige and status of the owner. The more the media was in a public context, the more the topic and its message were important for the community. Materiality also affects how much detail can be seen or not. It is easier to paint than to sculpt. And finally, the type of ornaments depends on the characters' gender. The textile types represented varied more for women than men.

5.6) Discussion

After this chapter dealing with the artefact distribution, the author will discuss the visited sites. In the form of maps, the aim will be to ascribe the recovered artefacts from any context available to the structure where they were found. The tool association in one room or structure could give some hints about the activities that took place there or how artefacts could have been used. The sites will be divided into their ranking based on whether they were primary centres, secondary centres, or small settlements.

Every site will be mapped and shown with a vast array of coloured numbers. Each number will refer to a certain artefact, and the colour will be used as a marker of materiality. Each site will have its legend due to its unique artefactual association and findings. For example, in Aguateca, the Structure M7-22 has the number 1 in blue (1). Blue corresponds to the shell artefacts, and the number 1 indicates that shells were found there. One can also see a 2 in green (2) in the same structure. Green is the colour for jade artefacts, and the number indicates that a mask was found. In addition, stars stated the presence of burials and caches within the structures. Different colours of stars correspond to different sex and age categories. For example, blue stars are for male burials, red for female burials, brown for adult burials with undetermined sex, black for caches, and violet for infant burials. The bibliography used to realise the maps can be found in Annex 4.6.

5.6.1) Primary centres

As a reminder, the primary centres encompass for the Classic period Calakmul, Caracol, Coba, Copan, Dzibanche, Edzna, Palenque, Tikal, Uaxactun, Uxmal, and Yaxchilan; and for the Postclassic period, Chichen Itza and Mayapan. Lamanai could be used as an example of a site with a long occupation period.

Calakmul has various structures in which many different artefacts were recovered (Annex 4.5.1.1).

- Structure 15 was the location of a female burial. Textile fragments, a beehive, flint collar, box, vase, plate, jade bead, earplug, mask, and collar, shells, shell bead, plaque, and *Spondylus* were found. This structure could have been used as a funerary place. The ornaments discovered there probably belonged to the dead woman. The vessel present in the structure could have been used for the food prepared for the dead person, or could have served as containers for some remains or tools.
- Structure 4 contained caches and male and female burials. Stingray spines, pyrite plaque, obsidian knives, shell, shell bead, *Spondylus*, box, vase, plate, pot, jade bead, mask, and plaque were found there. We can deduce that some ritual implements were present. The ornaments could belong to the dead individuals. The vessel could have been used for the food accompanying the dead on their voyage, or it could have been used as a container for some tools or remains.
- Structure 1 was the location where a cache was found. Shell, coral beads, jade beads, mano, metate, obsidian knives, obsidian point, ax, flint point, box, figurine, whistle, vase, and pot were discovered. Some of the artefacts were ornaments. Tools such as figurines and obsidian knives could have a ritual function. Other lithics could have been found in the cache as an offering.
- Structure 2 buried male, female, and infant individuals. Asta, awl, stingray spines, animal bones, jade, jade earplug, mask, pectoral, and collar, *Spondylus*, shell, shell collar and disk, box, figurine, whistle, vase, plate, bowl, pot, lip ornament, mano, metate, obsidian knife, ax, flint point, silex point, flint bead, bark pounder, flint knife, mortar, and flint nucleus were uncovered. We can suppose that the ornaments pertained to the dead. The vessel could be used for the preparation of food, or it could contain the remains or tools. Some artefacts could have been used

for ritual enactment. Other tools, such as mortar or bark pounders, could rely on a scribal activity. The lithics present here could have been used for various activities.

- Structure 3 contained male, female, and infant burials. Few of these individuals were covered with cinnabar. Textile fragments, pyrite plaque, box, whistle, vase, plate, cup, miniature vase, shell, shell bead, collar, disk, plaque and tinklers, awl, needle, stingray spines, mano, metate, obsidian knife, nucleus, and point, ax, biface, flint point, knife, and nucleus, excentrics, sharpener, scrapper, hammerstone, chipped stone, chisel, blade, polisher, jade bead, earplug, mask, pectoral, collar, plaque, ring, and head ornament were found in this building. The ornaments probably belonged to the dead. Cinnabar and textile fragments could give us some information about the funerary context. The vessel could be used for food preparation and consumption or as a container for remains and tools. The presence of a kitchen area could be deduced due to its possible artefactual arrangement of vessels and lithics. Excentrics, stingray spines, and miniature vases could have been useful in rituals. The rest of the lithics could have been used for specific workshops, even if some of them could be qualified as multifunctional.
- Structure 7 housed a male burial. Animal bones, awl, stingray spines, needle, shell, shell bead and disk, coral, jade, jade bead, earplug, mask, collar, pectoral, plaque, lip ornament, ring, and noseplug, carbon, cinnabar, patolli, textile fragments, pyrite plaque, metal balls, seeds, copal, box, figurine, whistle, vase, plate, spindle whorls, incense burner, lip ornament, metate, excentrics, biface, obsidian knife, point, and nucleus, flint point, knife, and nucleus were discovered there. The ornaments could pertain to the dead individual. Some tools could have a function in textile production. Others, such as the patolli, could have been used in meetings or receptions of people. Ritual implements were found, too. The lithics present could have played a role in some workshops.

Caracol was composed of various groups from which only the artefacts discovered in its core area will be discussed (Annex 4.5.1.2).

- Barrio Group contained adult burial, mano, bowl, vase, plate, cup, jar, drum, perfume bottle, and miniature vase. The vessel could have been used as a container

for food, remains, or tools. Various tools have a musical or ritual function. The perfume bottle and the miniature vase could have the purpose of being a beauty recipient.

- Caana housed a cache, infant, female, and adult burials, *Spondylus*, shell bracelet, jade earplug, bead and mosaic inlay element, mirror, animal bones, stingray spines, needle, pin, cylinder, bowl, incense burner, spindle whorl, gourd, spindle weight, vase, plate, cup, and jar. The ornaments could have belonged to the dead individuals. Some artefacts were used for textile production and rituals. The vessel could serve as a food, a remains, or a tool container.
- South Temple had a patolli game, bowl, vase, plate, cup, jar, and pot. These artefacts were used for rituals, meetings, and receptions.
- South Acropolis contained adult burial, jade beads, blades, shells, shell tinklers and beads, cylinders, bowls, vases, cups, pots, figurines, whistles, and dishes. Blades were multifunctional tools. The ornaments were worn by the dead individual. Some tools were used during rituals, and others, such as the vessels, were used as containers for food, remains, or tools.
- Central Acropolis had the presence of cache, male, female, adult, and infant burials, animal tooth, bone collar, jade, jade bead and pendant, shell ornament, bead, pendant, and earplug, flake, blade, mirror, lancet, and excentrics. The ornaments belonged to dead individuals. The lithics could have been ascribed to various activities. Ritual tools were found.
- Near Ballcourt, an adult burial, an incense burner, a plate, and a jar were recovered. These artefacts could have been ascribed to rituals, and the vessel could contain food, remains, or tools.
- Round-Shaped Pyramid had only a jade earplug and trumpet. The music could have been used for rituals. Somebody, probably a priest, could have worn the jade bead.
- E Group Plaza contained a mirror, seeds, mercury, jade chip, mask, earplug, and bead, *Spondylus*, shell bead and earplug. These artefacts were ornaments, and some were used for rituals.
- E Group range structure had the presence of cache, adult and infant burial, *Spondylus*, coral, shell, point, mirror, jade, jade earplug, bead, mosaic inlay element, celt, and disk, animal bone, stingray spine, animal teeth, needle, beehive, seeds, leather, bowl, incense burner, urn, and plate. The ornaments could have

belonged to the dead individuals. The vessel could have served as a food, remains, or tools container. Some tools were used in rituals or for textile production. Many perishable artefacts were preserved.

- E Group in front of the range structure had the presence of adult burial, animal bone, jade, shell, incense burner, and a point. The point could be multifunctional. The incense burner was used in rituals. Jade and shell could have been seen as ornaments.
- E Group Pyramid housed a patolli game, antler, animal bone, cylinder, bowl, incense burner, flake, blade, obsidian, drill, hammerstone, and point. The lithics could probably have a multipurpose function. The patolli was a game used in meetings. The vessel could have served as a container for food. Some artefacts were for rituals.

Coba was composed of four groups of structures in its core area from which different artefacts were found (Annex 4.5.1.3).

- Macanxoc Group contained adult burials, shells, obsidian knives and nuclei, and excentrics. The shell could have been worn as an ornament by the dead person. The excentrics probably played a role in rituals. The lithics present here could have been used for various activities.
- Nohochmul Group had the presence of carbon, animal bone, vase, jade pectoral and bead, metate, blade, silex point, shell, shell bead, and *Spondylus*. These artefacts could have been worn as ornaments, and others played a role in rituals. The lithics were multifunctional.
- Coba Group was composed of three structures where artefacts were recovered.
 - * Ballcourt had the presence of obsidian, pyrite, jade, hematite, pearl, and shell. The shell found there could have symbolised the Underworld.
 - * Plaza contained adult burials whose remains were covered with cinnabar. Hematite, jade figurine and bead, shell, shell collar, plaque and bead, pearl, mano, metate, blade, miniature metate, plate, incense burner, brazier, jar, pot, and box. The ornaments could have belonged to the dead individuals. The vessel could have been used as a container for food or remains. Some tools were present during the enactment of rituals. Mano and metate could have served to prepare food. The blade is multifunctional.

- * Structure had the presence of a plate, incense burner, brazier, pot, box, figurine, and vase. The vessel could be used as a container for food. Figurine, brazier, and incense burner were used in rituals.
- D Group had a plaza and four structures that the author numbered from 1 to 4.
 - * Plaza contained adult and infant burials. Jade beads, copper bells, incense burners, and cups were found. These artefacts could be used for rituals or as ornaments for dead individuals. The vessel could serve as a container for remains, food, or tools.
 - * Ballcourt had the presence of jade, hematite, blade, pyrite, *Spondylus*, pearl, and shell. All these stones and shells were precious.
 - * Structure 5 a plate, pot, brazier, and incense burner were discovered. They could have been used for rituals and/or for feasts.
 - * Structure 3 contained plate, incense burner, brazier, pot, box, and vase. The vessel was used for food, maybe for a feast. The other tools have been used for rituals.
 - * Round temple only had the presence of shell and jade.

Copan will be divided into three structural groupings. The exact location of the artefacts within specific structures was not found. The whole group will then be analysed (Annex 4.5.1.4).

- Core area contained male and female burials, gourd, jar, needles, weaving picks, shell, pearl, shell pendant and collar, loom weight, mirror, mano, metate, textile fragment, basketry, cinnabar, sandals, jade bead, pendant, anklet, knee band, belt, armband, wristlets, collar, figurine, and pectoral. Many ornaments were found, and the dead individuals could have worn them. The presence of cinnabar and textile fragments could give information about the funeral practices. Artefacts such as weaving picks and loom weights could indicate that some textile production occurred there. The mirror could have been used in rituals, and the mano and metate could have been used to prepare food. The vessel present here could have served as a container for food or tools.
- North Group housed male, female, and infant burials, shell rings, jade earplugs, bones, beads, and spindle whorls. The ornaments could have belonged to the dead individuals. The spindle whorl could attest to a textile production activity.

- Las Sepulturas contained adult burials, carbon, shell, *Spondylus*, shell ring, jade bead, figurine, pectoral, earplug, and headdress, needle, animal bone, antler, awl, pin, turtle carapace, jar, spindle whorl, incense burner, bowl, plate, brazier, cup, cylinder, disk, whistle, mano, metate, ax, yoke, celt, flake, biface, obsidian, obsidian blade, point, mortar, polisher, whetstone, pestle, hammerstone, spatula, donut stone, and bark beater. The dead persons could have worn the ornament. Mortar, pestle, and bark beater could have been used by the scribe or to produce paper. Some artefacts served for rituals and others for textile production. Mano and metate were used to prepare food. The vessel could have served as a container for food during gatherings or as a container for remains or tools. The yoke was a ballgame implement. The amount of lithics present here suggests that a workshop should have occurred at Las Sepulturas.

Dzibanche has two structures whose names are unknown to the author and will be numbered 1 and 2 (Annex 4.5.1.5).

- Temple of Lintels had the presence of an incense burner, disk, jade bead and ring. These artefacts could have been used for rituals and worn as ornaments.
- 1 was a kind of pyramid housing female burial, point, miniature metate, mano, mirror, pearl, *Spondylus*, shell collar, jade bead, collar, earplug and mask, incense burner, disk, box, plate, and figurine. The ornaments could have belonged to the dead person. Ritual tools such as miniature metate, mirror, and incense burner were found. The vessel could have been used as a container for food for the dead's journey or tools and remains.
- 2 might have been a pyramid where plate, pearl, shell bead and plaque, jade bead, mask, and plaque were recovered. The ornaments could have been worn by the people involved in the activities there, or by dead people not discovered yet, or the information was not available to the author. The plate could have served as a container for food.
- Tucan had the presence of a percutor, shell, incense burner, box, and vase. These artefacts could have been used for rituals. The vessel could have served as a container for the tools.
- Captives is a range structure composed of an assemblage of three smaller units. It housed male burial, shell, carbon, flint, obsidian blade, point, percutor, disk, box,

bowl, jar, vase, plate, pot, and spindle whorl. The vessel could have been used as a container for food or remains. The spindle whorl could have played a role in textile production. The lithics present here could have had a multipurpose function. However, the percutor and point could have been used for special workshops.

- Palace had the presence of a box, vase, spindle whorl, shell, carbon, stingray spine, animal bone, obsidian blade, point, nucleus, percutor, mano, and metate. The stingray spine could have a role in rituals. The spindle whorl could attest to the textile production taking place here. Mano and metate were used to prepare food. The vessel could have served as a container for food or tools. The lithics present could have been ascribed to a blade production workshop.
- Cormoran Temple contained male burials, stingray spine, carbon, shell, *Spondylus*, shell bead and collar, jade bead, collar, earplug, mask, disk, bracelet, and plaque, flint, obsidian blade, point, nucleus, incense burner, box, vase, plate, and pot. The lithics were multifunctional. The ornaments could have belonged to the dead individuals. The vessel could have been containers for food, tools, and remains. Ritual tools were discovered there, too.
- Owl Temple had the presence of male and female burials, copper, codex fragments, flint, knife, ax, obsidian blade, mano, obsidian, jade bead, collar, mosaic inlay element, earplug, and mask, shell, shell bead, plaque, and collar, pearl, incense burner, disk, box, bowl, jar, vase, and plate. Through the artefacts in the Owl Temple, we can have information about funeral practices and the ornaments the dead people wore. The lithics could have been of multifunctional use. The vessel could have been containers for food or remains. Ritual tools were recovered.
- Plaza Pom contained male, female, infant, and adult burials. Shell, shell collar, copper, carbon, seeds, wood, animal bone, jade, jade bead, ring, and bezote, flint, ax, obsidian blade, point, nucleus, percutor, metate, incense burner, box, bowl, vase, plate, pot, spindle whorl, and figurine were discovered within this plaza. These artefacts could have been used for rituals, as ornaments of dead individuals, or for textile production. The vessel could have served as a food, remains, or tools container. The lithics could have been multifunctional, but this assemblage could also be used for a specific workshop activity that has not yet been identified.

Edzna was a site where a few artefacts were recovered (Annex 4.5.1.6).

- Platform of Knives, only shells were found. They could have been worn as ornaments.
- Small Acropolis incense burner was discovered. Their use could have been for rituals.
- West Temple only pot and box were found. These vessels could have been used as containers for food.
- Temple near the Moon House housed male and adult burials, shells, jade pearls and earplugs. The dead persons could have worn these ornaments.
- Five Stories Palace contained adult burials, jade pearls, point, stone pearls, vases, plates, ceramics, and boxes. The ornaments could have belonged to the dead individuals. The vessel could have served as a container for food, maybe for feasts or remains.

Palenque was a vast primary site where various structures were studied (Annex 4.5.1.7). The precise location of multiple artefacts is not known. When it was the case, the artefacts were associated with a whole group.

- B Group contained adult, male, female, and infant burials. Animal bone and teeth, stingray spine, needle, asta, jade bead, copal, shell, shell bead, *Spondylus*, metate, obsidian blade, knife, pot, vase, box, incense burner, figurine, plate, bowl, incense holder, cylinder, and perfume bottle were found. Activities such as rituals and textile production took place in this group. The ornaments could have been worn by the dead individuals. The vessel could be used as a container for food, beauty products, remains, or tools. The lithics were multifunctional.
- Bat Group had the presence of a vase, box, figurine, incense holder, shell, shell bead, *Spondylus*, asta, animal bone and teeth. Ornaments and ritual tools were recovered. The vessel could have served as a food or tools container.
- C Group housed male, female, and adult burials. Shell, jade bead and plaque, animal bone, stingray spine, chisel, spindle whorl, metate, obsidian blade, biface, ax, point, polisher, crusher, straightener, yoke, obsidian nucleus, mano, miniature ax, pot, vase, box, incense burner, figurine, plate, stamp, bowl, incense holder, cup, cylinder, brazier, and mold were discovered in this group. Various activities could have occurred in this arrangement of structures, such as rituals, textile

production, figurine production, administration, food preparation, and lithic workshop. The ornaments were probably worn by the dead individuals. The vessel could have contained food for the dead's voyage, remains, or tools. The yoke was a ballgame implement. We can deduce that the inhabitants could have access to the game.

- Group 4 was composed of four structures. For the analysis, they will be numbered from 1 to 4 by the author.
 - * 1 and * 3 contained adult burials, animal bones, jade plaque, metate, ax, vase, box, and figurine. The figurine could be used for rituals. The jade plaque could have been worn by the dead person. Metate and ax could be multifunctional. The vase and box could be containers for food or tools.
 - * 2 housed male and infant burials. Ornaments such as jade beads and earplugs were found and could have belonged to the buried individuals. The stamp could attest to an administrative activity, and the spindle whorl to a textile production duty. The vessel could have served as a container for food or remains.
 - * 4 contained female burials, seeds, quartz, shell, shell earplug, biface, point, obsidian nucleus, animal bone, stingray spine, needle, and asta. Ritual and textile production activities could have taken place in this structure. The dead person could wear the shell earplug. The lithics were multifunctional.
- North Group Temples had the presence of animal bones, shells, ax, knives, vase, box, figurine, plate, spindle whorl, bowl, whistle, miniature plate, and cup. Ritual and textile production activities might have taken place in these temples. The vessel could be used as a container for food (feasts for gods) or tools. The lithics could not be ascribed to a specific activity.
- Ballcourt had ritual tools such as figurines, incense holders, shells, animal teeth and bones.
- Count Pyramid contained mano, metate, knife, animal bone, jade bead and plaque, vase, box, figurine, plate, spindle whorl, cup, and jar. Ornaments, textile production, and ritual tools were found. The lithics were multifunctional. The vessel could be used for containers for food or tools.
- Temple 10 housed adult burials. Figurine, shell, animal bone, turtle carapace, jade bead and pendant, metate, obsidian nucleus, knife, and mano were discovered. Some artefacts were used for rituals, and others were multifunctional, especially the lithics. The ornaments could have belonged to the dead person.

- Skull Temple had the presence of adult burial, shell, animal bone, jade bead, plaque and collar, knife, and obsidian nucleus. The ornaments might have been worn by the dead individual. The lithics could not be ascribed to a specific activity.
- Temple 13 contained male and female burials. *Spondylus*, shell needle, needle, bone spindle whorl, woven belt, cinnabar, metate, ax, knife, vase, incense burner, figurine, plate, jade bead, earplug, mask, collar, bracelet and headband were recovered. The ornaments belonged to the dead individuals. Rituals and textile production activities took place there. Some hints about the funerary practices are available from this temple. The vessel could have served as a container for food for the dead's journey or tools. Metate, ax, and knife were multifunctional artefacts.
- Temple of Inscription housed adult, male, female, and infant burials. Figurine, mold, textile fragment, cinnabar, obsidian nucleus, shell, shell bead and mosaic inlay element, jade bead, mask, earplug, noseplug, figurine, pendant, collar, ring, and headband were discovered. The ornaments were worn by the dead individuals. Rituals, textile production, and figurine production activities took place there. The obsidian nucleus could have been used for various duties.
- Temple next to Temple 14 had the presence of adult burials, shells, animal bones, jade beads, vase, box, plate, figurine, spindle whorl, incense holder, cylinder, drum, metate, ax, point, polisher, crusher, knife, mano, percutor, and loom weight. Rituals, textile production, workshops, and probably food preparation activities occurred there. The jade bead could have been worn by the dead person. The vessel could have served as a container for food or tools.
- Temple 14 contained a cache, obsidian blade, crusher, knife, animal bone, shell bead, vase, box, incense burner, figurine, cup, jar, cylinder, and brazier. Ritual tools and ornaments were found. The vessel could be a container for food or tools. The obsidian blade and knife could be multifunctional; however, the crusher might have been used for a special activity.
- Temple of the Cross housed a cache and adult burial. Pot, vase, box, incense burner, plate, spindle whorl, bowl, incense holder, cup, cylinder, copal, shell, shell bead, animal bone, needle, jade bead, obsidian blade and nucleus, knife, percutor, raedera, and loom weight were discovered. The ornaments could have belonged to the dead individuals. Multiple activities took place there, such as rituals, textile

production, and workshops. The vessel could have been a food, remains, or tools container.

- Temple of the Sun contained cache, shell, shell ring, knife, jade pendant, animal bone and teeth, vase, box, incense burner, figurine, incense holder, and cup. Ornaments and ritual tools were recovered. Vases, boxes, and cups could be food, remains, or tool containers. The knife is multifunctional, and no specific activity can be ascribed to it.
- Temple of the Foliated Cross housed cache, adult, male, and infant burials. Textile fragments, animal bone, turtle carapace, stingray spine, shell bead and earplug, shell, jade bead, plaque, and pendant, vase, box, incense burner, bowl, incense holder, whistle, jar, cylinder, disk, obsidian blade and nucleus, ax, point, mirror, knife, mano, percutor, and perforator. The lithics present here could be ascribed to a workshop. The artefacts could give information about the ornaments people wore, rituals that could have been enacted, and funerary practices. The vessel could be a container for food, remains, or tools.
- Temple next to the Temple of the Foliated Cross contained cache, male, adult, and infant burials, shell, animal bone, jade plaque, stingray spine, needle, disk, knife, and mano. The lithics were multifunctional. Ornaments could have been worn by the dead persons. Stingray spine was used to realise rituals. The needle could have been used in the textile production or to maintain the bundle that wrapped the corpse.
- Temple 21 housed a cache, infant, male, and adult burials. Jade bead, obsidian nucleus, yoke, disk, animal bone, needle, turtle carapace, spindle whorl, vase, box, incense burner, plate, figurine, incense holder, cylinder, and brazier. The ornaments could have belonged to the dead individuals. Activities such as rituals, textile production, and workshops took place there. The yoke could be proof that the inhabitants were playing the ballgame. The vessel could have contained food, remains, or tools.
- Temple 22 had the presence of cache, adult burial, textile fragments, cinnabar, *Spondylus*, shell, shell bead, jade bead, earplug, plaque, mask, and figurine, metate, ax, point, obsidian nucleus, knife, mano, vase, box, incense burner, plate, bowl, incense holder, sahumador, cup, and cylinder. The ornaments, cinnabar, and textile fragments could inform people about the funerary practices and the ornaments people wore. The vessel could have served as a food, remains, or tools

container. The lithics might have been used for a specific workshop duty and/or for the preparation of food with the presence of mano and metate. An incense burner, figurine, incense holder, and sahumador could be used for rituals.

Tikal was a primary centre with a vast array of structures. However, only a few of them will be analysed in this study (Annex 4.5.1.8).

- Group 7F housed cache, adult, male, female, and infant burials. Animal bone and teeth, stingray spine, cinnabar, textile fragment, charcoal, jade, jade bead, mosaic inlay element, ring, earplug, and chip, incense burner, disk, spindle whorl, figurine, stamps, whistle, shell, coral, *Spondylus*, shell mosaic inlay element, pendant, and bead, excentrics, obsidian blade, obsidian, flake, perforator, chip, mano, metate, biface, and hammerstone were recovered. The burials give us some insights into the ornaments they could have worn and the funerary practices. Various activities such as ritual, textile production, administration, workshops, and food preparation took place in this group.
- Temple 6 contained cache, adult, and male burials. Animal bone, charcoal, shell, *Spondylus*, jade, jade mosaic inlay element and chip, bowl, obsidian, obsidian blade, flake, chip, mano, metate, pestle, and flint were discovered. The dead persons could have used the ornament elements. The charcoal could be used for enacting some rituals or as part of the food preparation assemblage with the mano and metate. The bowl could probably be a container for the remains. The other lithics could have been used during a special activity.
- Temple 1 had the presence of cache, adult, male, female, and infant burials. Shell, shell bead, copal, cinnabar, textile fragment, chip, flint, stingray spine, perforator, tube, awl, needle, jade bead, earplug, figurine, plaque, bracelet, and anklet, plate, incense burner, bowl, pot, vase, and alabaster were found. The lithics from Temple 1 could have been multifunctional. The vessel could have served as a food, remains, or tools container. Rituals and textile production activities could probably have taken place here. Information about ornaments and funerary practices could be gained through the burials.
- North Acropolis housed cache, adult, male, female, and infant burials. Animal bone, stingray spine, spatula, tube, perforator, copal, cinnabar, textile fragment, charcoal, seeds, shell, coral, *Spondylus*, shell collar, bracelet, tinkler, figurine, and

plaque, jade, jade bead, ring, earplug, collar, pendant, mask, disk, and figurine, plate, incense burner, disk, figurine, bowl, pot, jar, cylinder, miniature jar, vase, urn, candelero, excentrics, obsidian, mano, metate, biface, hammerstone, silex, silex and obsidian nucleus, polisher, yugo, point, and mirror were recovered. A multitude of activities took place at the North Acropolis, such as rituals, workshops, and maybe food preparation. The yugo was a ballgame implement. The vessel could be a container for food for the dead's journey, a container for the remains, or tools. Funerary practices could be seen from the discovery of the well-preserved burials. The ornament could have belonged to the dead individuals.

Uaxactun was a vast site and was composed of various structural groupings, but four groups (A, B, D, E) will be under study here (Annex 4.5.1.9).

- Structure B8 housed female and infant burials without grave goods.
 - Structure B13 contained adult burials without grave goods.
 - Plaza B Group contained jade, shell, coral, obsidian, flint, and chip. The lithics might have been used for a specific workshop activity. Jade, shell, and coral could be seen as ornaments.
 - D Group only had the presence of jade bead ornaments.
 - Structure A2 had only a male burial without grave goods.
 - Structure A12 housed an infant burial with ornaments such as jade beads and earplugs. The ornaments could have belonged to the dead person.
 - Structure A5 only contained excentrics. These could have been used for rituals.
 - Structures near Structure A18 housed adult and female burials. Jade and charcoal were found. They could be used as ornaments, and the charcoal could have served as combustible for food preparation or rituals.
 - Structure 15 and a structure south of Structure A9 housed infant burials without grave goods.
 - Structure A1 contained adult and infant burials. Only a stingray spine was recovered and could have been used during rituals.
 - Near the West *Sacbeob* in the A Group, three structures were discovered. Their name is unknown to the author. It will be numbered from 1 to 3.
- * 1 had the presence of male burial, stingray spine, and codex fragment. Ritual tools were found, and ideas about funerary practices could be won.

* 2 contained male burial, stingray spine, codex fragment, and obsidian lancet. The codex could give information about the funerary practices. The stingray spine was a ritual tool. The obsidian lancet could have had a multipurpose function.

* 3 only housed a female burial without grave goods.

- Structure E9 had the presence of a dish, obsidian, flint, dagger, and point. The dish could have been a container for tools. The lithics could be used for a specific duty that is unknown yet.
- Structure E10 contained male burial, animal bone, jade earplug, disk, shell, and coral. The disk might have been a food, remains, or tools container. The rest of the artefacts were ornaments that could have belonged to the dead individual.
- Structure E7 housed male and female burials. Ornaments such as jade beads and mask were recovered and could have pertained to the dead individuals. Excentrics were tools probably used in rituals. Flint, obsidian blade, and chip were multifunctional. A bowl, vase, and pot could be containers for food for the dead's voyage, the remains, or tools.
- Structure E1 had the presence of a dish, animal bone, jade bead, earplug, and pendant. These artefacts were ornaments, and the dish could have served as a tool container.
- Structure E2 housed male and infant burials. Shells, shell pendant, disk, dish, jade, jade beads, flint, and animal bones were discovered in this structure. The ornaments could have been worn by the dead persons. Flint could be used for various activities. Disk and dish could be containers for food for the dead's journey, for remains or tools.
- Structure E3 contained an infant burial, jar, dish, and figurine. The figurine could be a ritual tool or a toy. The jar and dish could have served as a container for food or remains.
- Structure E5 housed an adult burial. Metate and cup were found. These artefacts could be multifunctional and used as containers for food.

Uxmal was a primary centre where only two structures were considered for the investigation (Annex 4.5.1.10).

- Magician Pyramid contained adult burial, biface, cup, box, bowl, vase, and plate. The biface was multifunctional. The vessel present could be used as containers for food during feasts or as containers for remains.
- Bird Quadrangle had shell, trumpet, metate, silex, obsidian, cup, box, and sahumador. Trumpet and sahumador could be used during rituals. The cup and box could have served as food or tool containers. The lithics could not be ascribed to one specific activity; they were multifunctional.

Yaxchilan was a unique primary centre located on the Usumacinta River. Various structures were of interest for this artefactual investigation (Annex 4.5.1.11).

- Structure 24 housed female and infant burials. Shell, jade bead and earplug, animal bone, asta, vase, plate, bowl, box, disk, figurine, alabaster, blade, metate, mano, obsidian nucleus, mortar, and biface were recovered. The ornaments might have pertained to the dead individuals. Rituals, food preparation, and workshops could have been activities that could have taken place in this structure. The vessel could be used as a container for food, remains, or tools.
- Structure 23 contained male and female burials, blade, shell, shell bead, animal bone, needle, awl, jade bead, earplug, bezote, and bracelet, mat, belt, cacao, jaguar pelt, vase, plate, bowl, box, disk, figurine, brazier, pot, and miniature vase. The artefacts discovered enable us to look at which ornaments the people wore and which funerary practices they might have had. The blade was multifunctional. Some tools, such as the brazier, figurine, and miniature vase, could be used during rituals. Needle and awl could have served in the textile production activity. The vessel could be containers for food for the dead's voyage, for remains, or tools.
- Structure 22 had the presence of shell, animal bone, blade, silex knife and point, metate, mano, biface, ax, scraper, obsidian point, vase, plate, box, figurine, miniature vase, and mold. The lithics could have been used for food preparation, a special workshop, multifunction, and/or for the production of figurines. Figurine and miniature vase could have been seen as ritual tools. The vessel could have served as a container for food or tools.
- Structure 21 contained a female burial, jade bead and earplug, shell, *Spondylus*, jaguar pelt, blade, silex knife, obsidian nucleus, animal bone, needle, stingray spine, vase, plate, bowl, box, incense burner, brazier, pot, and miniature vase.

Ritual tools were found. The needle could be used for the textile production activity, or it could have been used to close the bundle wrapped around the corpse. The presence of a jaguar pelt could give hints about the funerary practices. The ornaments could have belonged to the dead person. The lithics could have been used for various activities. The vessel could have served as a food, remains, or tools container.

- Structure 20 had the presence of a figurine, shell, jade earplug, animal bone, blade, silex knife and point, metate, mano, biface, ax, and obsidian knife. Ritual tools and ornaments were discovered in this structure. The lithics might have been multifunctional, used for food preparation duties, or involved in workshops.
- Structure 30 housed an adult burial. Shell, animal bone, jade earplug, metate, mano, biface, percutor, box, spindle whorl, disk, and figurine were found. The lithics could have been used for a specific activity. The spindle whorl could attest that a textile production activity took place there. Jade earplugs could be an ornament worn by the dead person. The figurine could be considered as a ritual tool. The box could have been a container for tools.
- Structure 33 contained male burial, copal, shell, animal bone and teeth, jade bead, blade, silex knife and point, obsidian nucleus, metate, mano, vase, plate, bowl, box, incense burner, spindle whorl, disk, and figurine. The jade bead could have been worn by the dead individual. The lithics were multifunctional. Ritual and probably textile production activities took place in the structure. The vessel could have served as food, remains, or tool containers.
- Structure 15 only had the presence of metate, mano, and animal teeth. Could this be an area for food preparation?
- Structure 14 had animal bones, figurine, whistle, blade, metate, mano, biface, and ax. These artefacts could pertain to rituals or multipurpose lithics.
- Structure 12 contained shells, metate, mano, figurine, and disk. Activities such as food preparation and rituals could have taken place here.
- Structure 10 had the presence of shell, animal bone, figurine, silex knife, metate, mano, ax, and chisel. Rituals, workshops, and maybe food preparation could have been enacted in this structure.
- Structure 8 contained animal bone, disk, figurine, blade, silex point and knife, mano, metate, biface, ax, and silex nucleus. The lithics could be multifunctional,

or they could be involved in a silex tool production workshop. Ritual and food preparation tools could be found.

- Structure 6 housed a female burial. Animal bone, awl, blade, ax, bowl, disk, and figurine were recovered. The bowl could have contained food or remains. The lithics were multifunctional. Activities such as rituals and textile production could have taken place in this structure.
- Structure 19 housed adult and female burials. Carbon, shell, shell bead, animal bone, needle, asta, blade, metate, obsidian nucleus, biface, mirror, flint, whistle, vase, plate, bowl, box, incense burner, spindle whorl, disk, figurine, pot, and jar were discovered. The ornaments could have belonged to the dead individuals. The lithics could have been used for multiple activities. Ritual and textile production activities could have taken place in this structure. The vessel could have been used as food, remains, or tool containers.
- Structure 78 contained an adult burial, blade, silex knife, vase, shell, and shell collar. The shell collar could have been worn by the dead person. The vase could have contained food or tools. The lithics were multifunctional.
- Structure 17 only had a vase, whistle, metate, and mano. The whistle could have been used in rituals. Metate and mano could have served to prepare food. The vase could have contained food or tools.
- Structure 16 housed a male burial. Jade bead and earplug, shell, *Spondylus*, animal bone, needle, vase, plate, bowl, spindle whorl, figurine, pot, whistle, blade, silex knife, mano, metate, scrapper, crusher, chisel, and silex nucleus were found. The jade ornaments might have belonged to the dead individual. Various activities could have occurred in this structure, such as rituals, textile production, workshops, and probably food preparation. The vessel could be a container for food for the dead's journey, the remains, or tools.
- Structure 39 contained shells, jade beads, stingray spine, animal bone, blade, obsidian and silex nucleus, mirror, plate, incense burner, disk, figurine, brazier, and pot. Ritual tools and ornaments were discovered. The lithics might have been multifunctional. However, the presence of various nuclei could suggest the presence of a workshop requiring these artefacts. The plate and pot could have served as a container for tools.
- Structure 40 had the presence of a blade, jade bead and plaque, animal bone, needle, stingray spine, shell, *Spondylus*, and coral. The blade was multifunctional.

The needle could be used for textile production activity. Ritual tools and ornaments were recovered from this structure.

- Structure 41 contained shells, *Spondylus*, coral, animal bone, stingray spine, blade, silex knife and nucleus, mirror, plate, box, incense burner, and disk. Mirror, incense burner, and stingray spine could be qualified as ritual tools. The plate and box could be containers for food or tools. The lithics present could be multifunctional or used for a workshop.

Chichen Itza was a significant site from which many artefacts were discovered (Annex 4.5.1.12).

- Caracol had the presence of a point, obsidian blade, pearl, shell bead, incense burner, jade, and animal bone. These artefacts could have pertained to rituals and ornaments.
- Osario Pyramid housed a cache, adult, and infant burials, jade and shell bead, *Spondylus*, mirror, jar, box, plate, incense burner, drum, miniature jar and box, sahumador, and bowl. The ornaments were worn by the dead individuals. The vessel served as a container for food or remains. Ritual and administrative tools (miniature jar and box) were found.
- Osario Platform contained adult, infant, and male burial, vase, copper bell, jade and shell bead, needle, knife, and point. Ornaments probably belonged to the dead individuals. The needle could be used to close the bundle. Copper bells were used for rituals. The lithics could be ascribed to various activities. The vase was a liquid container that served the dead on their journey.
- Great Ballcourt had the presence of shell, shell pendant, cup, vase, jar, figurine, spindle whorl, metate, silex, knife, point, biface, obsidian nucleus, hammerstone, ax, and perforator. The lithics association can make us deduce that they could be used for a certain kind of workshop. Various artefacts could pertain to kitchen tools, ritual tools, weaving tools, and ornaments.
- Venus Platform only male and infant burials were found without grave goods.
- Castillo contained a cache, adult burial, shell collar, cup, animal bone, copal, spear, obsidian, jade, jade disk, pendant, bead, head, collar, and plaque. The ornaments were worn by the dead person. Ritual tools were recovered. The spear could have been used for defence.

- Temple Round Tables housed a cache, jade, jade bead and pendant, shell bead, *Spondylus*, figurine, box, medallion, cylinder, metate, mano, mirror, and miniature metate. The vessel could be seen as a container of tools. These artefacts pertained to rituals, ornaments, and maybe the kitchen.
- Plaza 1000 Columns had the presence of shells, shell collar, pendant, and pectoral, jade, jade bead and pendant, vase, spindle whorl, box, plate, knife, point, obsidian nucleus, ax, and crusher. These artefacts could be ascribed to ornaments, weaving tools, and food containers. The lithics were multifunctional.
- Market recovered shell, obsidian, metate, mano, spindle whorl, and stamps. Stamps could have been linked to administrative activities, spindle whorls to weaving, and the lithics to kitchen tools.
- Chichen Viejo is composed of nine structures whose names are unknown to the author and will be numbered for their analysis.
 - * 1 contained cache, adult, male, female, and infant burials, jade bead, biface, copper bell, cinnabar, shell pendant, bead, earplug, and figurine, vase, jar, spindle whorl, box, and incense burner. The ornaments could have belonged to the dead individuals. The cinnabar could give information about the funerary practices. The vessel could have been used as a container for food, remains, or tools. Some artefacts could have been used for rituals or in the production of textiles.
 - * 2 only a yugo was found. It was a ballgame implement. Maybe this structure was a storage place.
 - * 3 is a round platform where cache, male burial, point, shell, shell bead and earplug, box, plate, incense burner, and sahumador were discovered. The point is not ascribed to one specific activity. The ornaments could have belonged to the dead individual. Some ritual tools were found. The vessel could have served as a food, remains, or tools container.
 - * 4 had a cache, adult burial, animal bone, vase, incense burner, shell collar, bead, and bracelet, knife, ax, and sharpener. The ornaments could have been worn by the dead person. This structure could have served as a lithic sharpener. The vase could have been used for food for the voyage of the dead. The incense burner played a role during rituals.
 - * 5 contained cache, shell earplug, vase, and incense burner. These artefacts played a role as an ornament and in rituals.

* 6 and * 9 had the presence of metate, mano, point, and polisher. Some tools could have been used in the kitchen for food preparation, and others may have been used for a workshop that needed this type of lithics.

* 7 only animal bone and a vase were found.

* 8 contained obsidian, copper bell, vase, jar, box, incense burner, drum, miniature jar, *sahumador*, and bowl. Some tools were used during rituals. The vessel might have served as a container for food. They could have been taken for feasts.

Mayapan was a site where a large number of structures were built (Annex 4.5.1.13).

- Structure 58 and Structure 80 only had figurines and whistles. Could these structures have a ritual activity?
- Structure 62 housed adult and infant burials. Animal bone, copper, whistle, figurine, incense burner, cup, sherd, whetstone, obsidian blade and chip, mano, flint chip and point, and polishing stone were found. The assemblage of lithics could attest to a special workshop. The vessel could have been used as a container for food, remains, or tools. Ritual tools were present here.
- Structure 88 and Structure 88b contained adult burial, animal bone, polishing stone, mano, flint point, knife, metate, percutor, bell, copper ring, jade bead and plaque, shell, shell bead, ornament, and pendant, figurine, incense burner, cup, box, and *brasero*. Few activities could have occurred in these structures, such as rituals, food preparation, and lithics workshops. The dead individuals could have worn ornaments. The vessel could be a container for food, remains, or tools.
- Structure 87 and Structure 87a had the presence of cache, bell, jade bead, animal bone, figurine, cup, shell, trumpet, shell pendant, flint point, mano, knife, metate, percutor, and weight. Some tools could have been used for rituals, worn as ornaments, and used as containers for food or tools. Mano and metate could have been seen as kitchen tools. The weight recovered here could have been used for a balance. Other lithic elements could not be ascribed to a special activity.
- Structure 152, Structure 152a, and Structure 152c housed adult burials. Jade pendant, animal bone, bone point, shell, shell bead and pendant, *Spondylus*, figurine, incense burner, cup, box, *brasero*, flint point, mano, knife, metate, percutor, and biface. The ornaments could have belonged to the dead individuals. Ritual tools were present in these structures. Mano and metate could be used for

food preparation. Here, it could be used for rituals or feasts by priests. The vessel could be a container for food or tools. The lithics could have been multifunctional.

- Structure 151 contained animal bone, *Spondylus*, shell bead and pendant, incense burner, cup, brasero, cincel, polishing stone, flint point, mano, knife, metate, and percutor. Ritual tools and ornaments were found. The cincel could have been used for administrative activities. The lithics were multifunctional, but few could have been ascribed to a special workshop. The vessel could be a container for food or tools.
- Structure 162 housed adult burials. Incense burner, cup, box, plate, brasero, animal bone, stingray spine, bell, shell, *Spondylus*, trumpet, shell bead, mosaic inlay element, ornament, and pendant, flint point, mano, knife, metate, percutor, and biface were discovered. The ornaments could have belonged to the dead person. Ritual tools were found. The lithics might have been used for multipurpose duties or in a special workshop. The vessel could have served as a container for food for the dead's journey or as a container for tools.
- Structure 163 had the presence of a cup, shell, flint point, mano, knife, and percutor. Some tools could be used for rituals. The vessel could be a container for food or tools. The lithics might have been used for various activities.
- Structure 168 housed infant burials. Sherd, awl, carved bone, flint chip and point, obsidian arrowhead, shell, shell tinkler, ornament, and pendant were recovered. The lithics might have been used for carving activities. The ornaments could have been worn by the dead person.
- Structure 165 contained adult burials, a figurine, cup, sherd, bowl, jade bead, animal bone, obsidian flake and blade, shell, and shell bead. The ornaments could have belonged to the dead individual. Figurines could have been used during rituals. The vessel might have served as a container for food for the dead's voyage or as a container for remains and tools. The lithics present in this structure were multifunctional.
- Structure 208 had the presence of infant burials, shell beads, antler, bell, textile cord, whistle, figurine, incense burner, sherd, and vase. The ornaments and textile cord could give information about the funerary practices and the ornaments used. Ritual tools were found there. The vase could have contained food, remains, or tools.

Lamanai was a site with widespread structures. Few of them will be analysed and numbered by the author due to a lack of identification (Annex 4.5.1.14).

- Structure N10-9 had the presence of cache, animal bone, jade, jade bead, *Spondylus*, obsidian, obsidian blade, chip, bowl, dish, and vase. The lithics could have been multifunctional. The vessel could have served as a container for food or remains. The jade bead could be an ornament.
- Ballcourt contained cache, mercury, jade, shell, vase, and miniature vase. Shells and ritual tools could be found there for their symbolism with the watery Underworld.
- Mask Temple housed adult burials. Obsidian blade, chip, shell bead, bowl, dish, incense burner, figurine, jade, jade earplug, animal bone, tube, pin, and bone ring were found there. The ornaments could have been worn by the dead persons. Ritual tools such as tubes, figurines, and incense burners were recovered. The vessel could have served as a food, remains, or tools container. The function of the lithics could have been varied.
- The South Acropolis can be divided into four structures, numbered by the author, from 1 to 4.
 - * 1 had the presence of adult burial, obsidian, point, jade earplug, figurine, vase, shell, and pearl. Obsidian and points could have been used in various activities. Ritual tools and ornaments were discovered there. The vessel could have served as a food, remains, or tools container.
 - * 2 contained male burials, shell, jade, jade mask, copper bell, gold, point, knife, metate, mirror, animal bone, tube, pin, bone ring, incense burner, vase, spindle whorl, and whistle. The vessel found could be used as a container for food or remains. Some artefacts could have played a role in rituals or textile production. Others could have been worn as ornaments. Metate, knife, and point could have been multifunctional.
 - * 3 had the presence of cache, jade, jade earplug and mask, bowl, dish, and obsidian. The vessel could be a container for the remains of tools. Few ornaments were found.
 - * 4 contained adult burials, jade beads, textile fragments, copper bell, point, knife, metate, animal bone, tube, pin, bone ring, dish, incense burner, jar, cylinder, whistle, and spindle whorl. The discovery of dead individuals could give

information about funerary practices and their ornaments. Copper bell, tube, whistle, and incense burner played a role in rituals. The spindle whorl could be ascribed to a textile production activity. The lithics present here could be used for multiple purposes. The vessel could have served as a food, remains, or tools container.

5.6.2) Secondary centres

Here again, as a reminder, the secondary centres from the Classic period are Aguateca, Altun Ha, Bonampak, Ek Balam, Kabah, Kohunlich, Labna, Oxkintok, Quirigua, Sayil, Seibal, Tonina, Xpujil, Xunantunich, Yaxha, and Yaxuna; and from the Postclassic period, there is Tulum. Dzibilchaltun was an exceptional secondary centre whose period of occupation was wide.

Aguateca was a site where a multitude of artefacts were recovered (Annex 4.5.2.1).

- House of Masks was a structure where no burials were found. However, stone perforator, needle, animal bones, shells, and shell ornaments were discovered. This house could have been a space for the production of shell ornaments, and the presence of animal bones and needles could attest to textile production.
- Structure M8-2 could have been a place for the incision of shell ornaments through needles. Indeed, needle, animal bone, shell, and shell ornament were found.
- Structure M8-3 could be seen as an area for producing shell ornaments with the polishing, perforation, and incision steps. This could have been deduced through the presence of a needle, animal bone, shell, perforator, polisher, and shell ornaments.
- Structure M8-17 and M8-18 could have been locations for storage or ancestor worship. Figurine and whistle were discovered.
- Structure M7-32 contained a male burial. No grave goods were associated with the dead. It could be the remains of the inhabitant or the corpse of somebody else due to the rapid abandonment of the city centre.
- Structure M7-34 only had the presence of a metate. It could be a place for grinding maize or as a food preparation area for ritual feasts.

- Structure M7-22 could be a structure for meetings or storage of regalia. Shell, jade mask, vase, and animal bone were found. They all pertain to sumptuous artefacts.
- Structure M8-4 contained various artefacts such as a jade headband, alabaster, incense burner, plate, bowl, spindle whorl, figurine, mano, metate, mortar, pestle, and mirror. This structure had a kitchen used for food preparation. Activities related to the scribes and textile production could be deduced. Some domestic rituals could have taken place there.
- Structure M8-8 could have a function in the production of headbands, enact domestic rituals, and have a kitchen where food is prepared and served. The artefacts recovered there were jade headbands, spindle whorl, figurine, jar, whistle, metate, celt, and ax.
- Structure M8-13 had adult and infant burials. Shell, needle, mano, metate, mortar, pestle, perforator, polisher, pot, spindle whorl, and figurine were discovered. Probably, food was prepared there. Domestic rituals and scribal activity might have occurred. Also, a workshop in this structure could have required a perforator and polisher.

Altun Ha is composed of various architectural complexes from which three groups will be the focus of the artefactual analysis (Annex 4.5.2.2).

- Structure A6 contained a cache and an adult burial. Jade beads, disk, figurine, bowl, pearls, shell beads and mosaic inlay elements, and *Spondylus* were discovered. Ornaments belonged to the dead, and vessels containing probable food were placed there to accompany the dead on their journey.
- Structure A8 housed male, female, and infant burials, as well as a cache. Jade beads, needle, obsidian blade, flint, pearls, shell beads, bowl, vase, jar, disk, dish, whistle, figurine, and plate were found in this building. The ornaments could have been owned by the dead individuals. The vessel could have been used for food preparation for the dead or could have served as a container for remains or tools. The lithics could have served as a multipurpose tool.
- Structure A5 had a cache, male and female burials. Shell, coral, shell pendant, obsidian blade, flint, bifacial point, jade earplug, bead, and pendant, animal tooth and bone, bone pendant, jar, disk, plate, and bowl were present in the

structure. The ornament could have pertained to the dead individuals. The vessel could have contained food for the dead's voyage or served as a container for remains or tools. The stone artefacts were probably used for multifunctional purposes.

- Structure A3 contained a cache and a male burial. Shell, coral, pearl, shell bead, *Spondylus*, jade bead, earplug, pendant, and pectoral, jar, dish, bowl, and vase were found there. We can deduce that the tools present were ornaments for the dead and vessels for their food.
- Structure A1 contained a cache, as well as adult and male burials. Fragment of a codex, jade bead, pendant, collar, earplug, and pectoral, jade, needle, pin, stingray spine, animal tooth and bone, shell, coral, pearl, shell bead, flake, obsidian blade, flint, mirror, jar, disk, dish, whistle, figurine, plate, cylinder, bowl, and incense burner were discovered in this building. The ornaments were probably owned by the dead. The vessel contained food for the dead, remains, and tools. Ritual tools were found. The codex fragment could be an indication of the funerary practices. Only a few fragments remain due to its poor preservation conditions. Lithics could have composed the cache. They were probably multifunctional. The mirror could have served for divination activities.
- Structure B3 had male and female burials but no grave goods.
- Structure B5 was a location for an infant burial placed in a dish and a cache containing jade pieces.
- Structure B6 contained a cache and a male burial. Jade beads, stingray spine, jar, dish, flake, and obsidian chips were found. The ornament could have belonged to the dead individual. The vessel could have been used for the food of the dead, or as a container for the remains or tools. Ritual implements and lithics were also present.
- Structure B4 housed a cache, an adult, and a male burial. Shell, coral, pearl, shell bead and pectoral, *Spondylus*, needle, pin, animal tooth, stingray spine, cinnabar, jaguar pelt, textile fragment, petate, pigments, jade bead, pendant, collar, earplug, anklet, and armband, jade, jar, disk, dish, plate, cylinder, bowl, incense burner, flake, obsidian blade, flint, mirror, excentrics, pebble, and chisel were recovered from this building. Pins and needles could be used to bundle the dead. Cinnabar, petate, and jaguar pelt could give information about the funerary practice. The vessel could be used for meetings or to contain food for

the dead individuals. Ritual tools such as stingray spine and incense burner were found. Some lithics could have had a multifunctionality, or they could have been involved in a specific activity that is yet unknown. Excentrics were most probably discovered in the cache.

- The C Group was composed of nine structures into which artefacts were found. No structure name for them is known to the author. That is why a simple numeration will be used to analyse them.

- * 1 had a cache, male, female, adult, and infant burial. Jade pendant, animal bone, bowl, vase, shell bead, earplug, and mosaic inlay element, flake, obsidian blade and point were found. The ornaments could pertain to the dead individuals. The lithics could be multifunctional.

- * 2 contained cache, male, female, adult, and infant burials. Pin, animal bone, jade bead, pendant, collar, and earplug, biface, flake, obsidian blade, flint, shell, shell bead, jar, dish, and bowl were recovered from the structure. The ornaments could belong to the dead individuals. The vessel could have contained food for the journey of the dead, or contained remains or tools. For the lithics, no special activity could be ascribed to them.

- * 3 was a structure where only a male burial and a bowl were found.

- * 4 housed a cache, male, female, and infant burial. Stingray spine, shell pendant, jade bead, earplug, and mosaic inlay element, jade, obsidian blade, flint, mirror, jar, disk, dish, plate, bowl, and vase were discovered in the structure. The ornaments could have been worn by the dead individuals. Ritual tools such as stingray spine and mirror are present. The vessel could have served as the food preparation for the dead's voyage or as a container for the remains and tools. The lithics could have had a multipurpose use.

- * 5 contained a cache, male, adult, and infant burial. Obsidian blade, mano, shells, shell beads and pendant, jar, disk, dish, plate, bowl, and vase were discovered. The ornaments belonged to the dead. The vessel could have been used for food for the dead, or it could have been used as a container for remains or tools. The obsidian blade could have been used for various activities.

- * 6 had a cache, male, female, and adult burials. Jade beads, pin, animal teeth, obsidian blade, disk, dish, and bowl were present in this structure. The pin could have been used to bundle the dead. The ornament could belong to him. The

vessel could be used as a container for the remains or tools, but also for the food the dead needed for the afterlife.

* 7 housed a cache, female, and infant burials. Pigment, obsidian blade, jade bead, shell, shell bead and earplug, jar, dish, disk, bowl, and pot were found. Information about the funerary practices could have been gained through this structure. The ornaments could have been worn by the dead individuals. The vessel could have served as a container for food or for remains and tools. The pot and pigment combination could refer, maybe, to a scribal or painting activity. The obsidian blade could be used for several activities.

* 8 had a cache, male, female, and infant burials. Jade bead, obsidian blade, jar, and dish were found. The obsidian blade had no specific activity to be ascribed to. The jade bead could be used as an ornament. The dish could have been a container for infant remains, and the jar could have contained some liquid for the dead and their voyage.

* 9 contained male, female, infant, and adult burials. Obsidian blades were multifunctional. The vessel could have contained food or remains.

Bonampak will be artefactually analysed within three sectors (Annex 4.5.2.3).

- Frey Group had the presence of figurine, mold, blade, mano, metate, ax, chisel, biface, and scrapper. This group could have been involved in the production of figurines. Mano and metate could have been used to grind clay and pigments. The lithics could have served to fabricate figurines, or they could have had other purposes.
- Quemado Group was composed of 4 structures. No special name for their differentiation is known to the author. Numeration will be used for their analysis.

* 1 contained male and adult burials. Jade beads, bone, vase, figurine, blade, flint and flint knives, silex and obsidian points were found. The ornament was worn by the dead. Ritual tools were present. The vessel could be used as a container for food for the dead, the remains, or tools. Through the lithics, we can deduce that this structure could have been involved in lithic production.

* 2 had male and infant burials. Jade bead, awl, shell, shell collar and bead, blade, flint and flint knife, silex point, obsidian, vase, plate, box, bowl, and

spindle whorl were present in this building. The ornaments could pertain to the dead individuals. Weaving implements could attest to a weaving activity taking place there. The vessel could contain food for the dead, remains, or tools. Through the lithics, we could say that they probably served a certain kind of production.

* 3 housed male, female, adult, and infant burials. Jade, figurine, flint, mano, mirror, polisher, mortar, flint knife, obsidian and obsidian point, metate, ax, chisel, crusher, and nucleus were recovered. Ornaments should have belonged to the dead individuals. Kitchen and ritual tools were present. The number of stone artefacts could attest that some kind of workshop could have occurred in that structure.

* 4 contained male and female burials. Vase, figurine, bowl, blade, flint, mirror, obsidian, nucleus, and percutor were discovered. Ritual tools such as figurines and mirrors were present. The vessel could be used as a container for food, remains, or tools. The lithic tools could have served to shape the stones or to do some stone reduction.

- The core area is composed of various structures. A numeration will also be used to continue this investigation.

* 1 had an adult burial. It also had the presence of jade bead, vase, incense burner, brazier, blade, mirror, flint knife, obsidian point, and metate. Incense burner, mirror, and brazier can be seen as ritual tools. The jade bead could have been an ornament of the dead. The lithics could have been used for various activities.

* 2 only had ritual tools such as a vase and incense burner.

* 3 contained an adult burial. The jade bead could have been worn by the dead. Obsidian and ax were multifunctional stone artefacts.

* 4 had only the presence of carbon, blade, and obsidian.

* 5 housed an adult burial. Vase, animal bone, blade, mano, polisher, and mortar were discovered there. We can deduce that this association of lithics could indicate a special activity or workshop. However, the precise function is not known. The vessel could be used as a container for food, remains, or tools.

* 6 had only the remains of animal bone.

* 7 had the presence of jade bead and earplug, mirror, vase, plate, incense burner, pot, box, and jar. These artefacts could have been worn as ornaments

and were used in rituals. The vessel could have served food or been used to store tools.

* 8 contained ritual tools (incense burner) and vessels that could contain liquids (pot and jar).

* 9 recovered a plate, incense burner, pot, jar, figurine, blade, and silex point. The lithics could have a multifunctional purpose. The ceramic could have been used for rituals and food containers.

* 10 had an adult burial and the presence of vase, plate, incense burner, pot, jar, stingray spine, bone, needle, *Spondylus*, coral, shell bead, mano, blade, flint, jade, jade pectoral, bead, and armband. The ornaments could belong to the dead individual. The needle could have been used for the bundle. The vessel could be a container for food, remains, or tools. Some tools could have served for rituals.

* 11, * 12, and * 13 had the presence of the same artefacts such as vase, plate, incense burner, pot, box, jar, figurine, and brazier. These artefacts were used for rituals and as containers for food and remains.

* 14 housed an adult burial, animal bone, blade, flint, mano, and metate. Mano and metate could have been used to grind food. The lithics could have been used for food processing, or they could have had various purposes.

* 15 contained male and infant burials, pot, and figurine. The figurine could be a ritual implement, or it could have been the infant's toy. The pot could be a food or remains container.

Ek Balam was a secondary site in which various structures will come into focus in the artefact analysis (Annex 4.5.2.4).

- Acropolis was a multi-story structure in which copper ring, gold pendant, jade bead, ax, plaque, pendant, and earplug, shell, *Spondylus*, shell bead, pendant, plaque, spoon, pectoral, and ring, stingray spine, animal bone, needle, bone bead, pendant, and ring, perforator, spatula, mirror, stone bead, point, mano, metate, obsidian nucleus, knife, percutor, ax, scrapper, crusher, smoother, polisher, macerator, incense burner, box, figurine, vase, disk, spindle whorl, miniature cup, ceramic pendant, flute, bowl, whistler, and alabaster were recovered. Different activities probably took place there, such as rituals, textile

production, food preparation, and workshops. Ornaments were found there and might pertain to individuals inhabiting the Acropolis. The vessel could be used as a container for food, remains, or tools.

- Central Plaza range structure 1 contained adult burial, shell, incense burner, and flint nucleus. These artefacts were used as ornaments and as ritual tools.
- Central Plaza platform had the presence of copper ring, jade bead and earplug, vase, miniature cup, shell bead, pendant, and plaque, *Spondylus*, point, knife, scraper, polisher, and stone pendant. Ornaments and ritual tools were found. The lithics could refer to a workshop that might have taken place here. The vase could have contained food or tools.
- Central Plaza range Structure 2 housed adult burials, shell pendant, animal bone, blade, cup, plate, and figurine. The blade could be multifunctional. Ornaments could have belonged to the dead individuals. Ritual tools were recovered. The vessel could be used as a container for food, remains, or tools.
- Ballcourt had the presence of antler, jade plaque, cache, shell bead, pendant, and plaque, point, knife, blade, incense burner, box, plate, vase, disk, spindle whorl, and miniature cup. The lithics could have been used as weapons. Ornaments and ritual tools were discovered. The vessel could be a container for food, remains, or tools.
- Platform next ballcourt only had points.
- Twin Temple contained adult burials, shell, figurine, stone bead, point, knife, and crusher. Except for the crusher, the lithics present there could be multifunctional. The dead individuals could have worn ornaments. Ritual tools were also found.
- Only metates were discovered on the platform in front of the Twin Temple.
- On the platform next to the Twin Temple, jade bead and plaque, knife, and brazier were recovered. These artefacts were multifunctional, ritual tools and ornaments.
- Platform with stelae had the presence of cache, knife, animal bone, and cup. The cup contained a knife, which could be used for many purposes.
- Structure 10 contained a pot, metate, blade, and flake. The lithics were multifunctional. Pot and metate could have been used for pigmentation.
- Structure 11 only had a metate.

- Arch contained a cache, animal teeth, shells, shell beads, point, knife, crusher, stone plaque and pendant. Ornaments were found. The lithics recovered were multifunctional except for the crusher. This one could have been involved in a special workshop.
- Oval Palace housed adult and infant burials, a cache, a cup, plate, vase, cylinder, animal bones, bone beads, jade beads, plaque, pendant, and earplug, shells, shell beads, pendant, and plaque, *Spondylus*, point, stone beads, plaque, and pendant, knife, and crusher. The vessel could be a container for food, remains, or tools. Ornaments could have belonged to the dead individuals. The lithics could have been multifunctional, or, because of the presence of the crusher, they could have been used in a special workshop.
- Structure between Structure 10 and Oval Palace only had shell and blade. The blade could be used in various activities.

Kabah will be analysed through three architectural groupings (Annex 4.5.2.5).

- Codz Pop Platform contained adult burials, shell, animal bone, incense burner, bowl, cup, box, vase, figurine, and plate. The ornaments could have pertained to the dead person. Incense burner and figurine were ritual tools. The vessel could have been used as a container for food for the voyage of the dead or remains.
- Great Pyramid Group had the presence of knife, ax, point, polisher, mano, perforator, scraper, percutor, metate, bowl, cup, figurine, plate, and drum. In this group, an area for food preparation can be deduced. Rituals took place there. The vessel could be used as containers for food, for example, for some feasts. The lithics could have been ascribed to a special activity taking place there. However, its specific use is yet unknown.
- Great Quadrangle Platform has three structures of interest for this study that will be numbered by the author from 1 to 3.
 - * 1 had the presence of cache, adult burial, jade bead, and vase. The vase could have contained the jade bead, which could have been seen as an ornament.
 - * 2 contained cache, adult burial, incense burner, bowl, cup, box, vase, and figurine. These artefacts could have played a role in rituals. The vessel could be

a container for food supplies for the dead individual's journey, but it could also be a container for the remains.

* 3 only had a knife and incense burner. They could be ascribed to ritual tools.

Kohunlich was a site composed of 6 different structural groupings in the core area (Annex 4.5.2.6).

- 27 Step Complex contained male, female, and adult burials. *Spondylus*, shell trumpet and earplug, jade bead and pectoral, vase, plate, awl, cinnabar, hammerstone, obsidian blade, metate, and mano. Through this group, information about funerary practices and ornaments could be gained. Activities such as food preparation, rituals, and textile production took place there. The vessel could have served as a food, remains, or tools container. The lithics could have been used for different activities.
- Northwest Group had two structures.
 - * 1 had adult burials, shell earplug, trumpet, jade pectoral, and awl. These artefacts could pertain to ornaments and rituals.
 - * 2 housed an adult burial, jade bead, animal bone, awl, hammerstone, ax, shell, trumpet, and shell earplug. Here, too, the artefacts pertained to ritual tools and ornaments. The lithics could have been used for various activities.
 - * Plaza only carbon and obsidian were found.
- Mask Temple housed an adult burial and flint.
- In the other structure next to the Mask Temple, copper, jade mosaic inlay elements, shell, shell earplug, figurine, spindle whorl, whistle, metate, mano, mirror, knife, and obsidian point were discovered. In this structure, there might have been areas for ritual enactment, food preparation, and textile production. Knife and obsidian points could be multifunctional.
- Pixa'an Complex had the presence of adult burials, animal bone, awl, shell, shell earplug and bead, trumpet, jade, jade pectoral, bead, bezote, and bracelet, figurine, incense burner, alabaster, spindle whorl, whistle, hammerstone, metate, mano, flint, ax, and obsidian. The artefacts could have been used as ornaments, ritual tools, and for food preparation. The stone tools were probably multifunctional.

- Merwin Plaza had ornaments such as jade pectoral and shell earplugs. The vase and awl could have been used for rituals.
- Yaxna Complex contained adult burials, awl, jade pectoral, bead, and plaque, shell, shell earplug, vase, plate, figurine, incense burner, spindle whorl, disk, bowl, incense holder, hammerstone, obsidian blade, metate, mano, flint, ax, obsidian, nucleus, mortar, and polisher. Rituals, textile production, food preparation, and probably administrative activities could have occurred in this complex. Ornaments could have belonged to the dead individuals. The lithics present here could have been used for a workshop that is not yet known. The vessel could have served as a container for food or remains.

Labna was a secondary centre where various artefacts were discovered (Annex 4.5.2.7).

- Palace had the presence of cache, shell pendant, figurine, and instrument, coral, knife, metate, point, obsidian and silex nucleus, mano, polisher, ax, percutor, excentrics, macerator, crusher, bark beater, cup, bowl, box, mold, vase, spindle whorl, figurine, incense burner, sahumador, whistle, and jar. Many activities might have occurred there, such as rituals, administration, food preparation, figurine production, and lithic workshop. Ornaments were found and could have pertained to the people living or working there. The vessel could be a container for food, feasts, remains, or tools.
- On the causeway, cup, box, jar, alabaster, coral, shell, knife, point, silex, nucleus, mano, polisher, ax, macerator, and crusher. The lithics could have been multifunctional; however, some could have been used in a special workshop. The vessel found could have been containers for food, remains, or tools. Moreover, ritual tools were recovered.
- Column House contained metate, cup, bowl, box, figurine, and incense burner. The metate could have been used for food preparation. Figurine and incense burner were ritual tools. The vessel could have been used as a container for food or tools.
- Arch had the presence of knife, point, silex nucleus, figurine, shell, and instruments. The lithics could have been used for a variety of activities. Instruments and figurines could have been involved in rituals.

- Arch quadrangle contained jade bead, ax, knife, silex nucleus, mano, and ax. The box could have been a container. The lithics could have been multifunctional. The jade bead could have pertained to the owner of this structure.
- Mirador Pyramid had ritual tools (incense burner, ax?) and vessels that could have been used for food consumption during feasts.
- Mirador Plaza had the presence of ax, cup, bowl, vase, spindle whorl, and incense burner. The vessel could be a container for food, remains, or tools. Ritual tools were found. The spindle whorl could have been ascribed to a textile production activity.
- Structure 7 contained shell pendant and bead, cup, bowl, box, incense burner, knife, metate, silex and obsidian nucleus, and biface. The lithics could have been involved in special activities. The vessel could be used as a container for food, tools, or remains. Ritual tools and ornaments were found in this structure.
- Central Plaza had two structures.
 - * 1 had the presence of a silex nucleus, cup, bowl, box, and incense burner. Ritual tools were discovered. The vessel could have been used as a container for food or tools.
 - * 2 contained a knife, cup, figurine, and shell. These artefacts pertained to ritual tools and could also be worn as ornaments. The cup could be a container for food or tools.

Oxkintok was a site composed of four main architectural assemblages in its core area (Annex 4.5.2.8).

- Satunsat housed a cache, male and adult burials. Mano, silex, obsidian, shell, shell bead, earplug, and bezote were found. The ornaments could have belonged to the dead individuals. The lithics could have been multifunctional and might have been used for rituals or offerings.
- May Group was composed of a pyramid, and three structures whose names are unknown will be numbered.
 - * Pyramid housed cache, adult and male burials, animal bone, jade, jade earplug, shell, obsidian, point, metate, vase, figurine, and box. The ornaments could have been worn by the dead individuals. Ritual tools were found. The

lithics could have been multifunctional. The vessel could be used as a container for food, remains, or tools.

- * Plaza contained cache, animal bone, pin, figurine, jade, jade bead and earplug, shell, shell bead and ring, mano, obsidian, point, metate, silex nucleus, knife, ax, and percutor. The pin could have been used to fix the bundle where the corpse was wrapped. Ornament and ritual tools were discovered. The lithics might have been involved in a specific workshop.

- * 1 had the presence of cache, shell, knife, percutor, plate, and jar. This offering included vessels that could be used as containers for food and tools, and the lithics were ascribed to various activities.

- * 2 only had shell, animal bone, obsidian, and metate. Here, the lithics were multifunctional.

- * 3 housed an adult burial, vase, and obsidian. The vase could have contained food for the dead, and the obsidian could have been used for multiple activities.

- The Dzib Group has three structures that will be analysed.

- * Ballcourt only had the presence of an incense burner, which could attest to a ritual activity.

- * Observatory recovered spear, obsidian, and point. These artefacts could be classified as defensive tools.

- * Pyramid contained adult burial, figurine, box, shell, shell pectoral and collar, point, knife, and polisher. The ornaments could have belonged to the dead individual. Ritual tools and multifunctional lithics were found in the pyramid.

- The Ah Canul Group was the largest group of Oxkintok.

- * Pop Palace housed adult and male burials without grave goods.

- * North Plaza had cache, shell, obsidian, point, metate, and knife. The lithics were multifunctional and could not be ascribed to one specific activity.

- * East pyramid contained male and infant burials. Jade bead, shell bead and ring, box, and cup were recovered. The ornaments could have belonged to the dead persons, and the vessel could have been used as a container for food, remains, or tools.

- * West Pyramid housed male, female, and infant burials. Animal bone, bone ring, jade bead, plaque, and earplug, shell, shell bead and pectoral, vase, cup, plate, mirror, mano, obsidian, point, and metate were recovered. The ornaments were worn by the dead individuals. Ritual and probably kitchen tools were

found in this structure. The lithics discovered were multifunctional. The vessel could have served as a container for food for the dead's voyage or as a container for remains or tools.

* Ch'ich Palace only recovered an adult burial and some multipurpose lithics such as silex and obsidian.

* Initial Series Palace housed cache, adult, male, and infant burials. Animal bone, stingray spine, jade bead and earplug, vase, figurine, box, cup, jar, incense burner, shell, shell collar, trumpet, *Spondylus*, knife, mano, silex, obsidian, and point were found in this palace. Ritual tools such as stingray spine, figurine, trumpet, and incense burner were discovered. The ornaments might have been worn by the dead individuals. The vessel could have contained food, remains, or tools. The lithics were multifunctional.

* Southeast Plaza had the presence of adult burials, shell, silex, point, and metate. The lithics were multifunctional.

Quirigua was a secondary site where mainly the acropolis was studied (Annex 4.5.2.9).

- South Acropolis contained multifunctional lithics such as obsidian flake and blade that could not be ascribed to one specific duty.
- Ballcourt had a cache, shell, jade, jade ornament, pyrite, and bowl. The bowl could have been used as the offering container, which was mostly composed of ornaments.
- Acropolis housed cache, male, adult, and infant burials. Obsidian blade and flake, excentrics, flint, disk, biface, jade, jade bead, shell, charcoal, copper bell, pyrite, sherds, incense burner, candelero, figurine, jar, cup, bowl, and cylinder were discovered. The ornaments could have belonged to the dead persons. The vessel could be a container for food for the dead's voyage, remains, or tools. Excentrics, copper bell, incense burner, and candelero could have been used for rituals. Flint, disk, and biface were multifunctional.

Sayil was a site where only a few artefacts were found (Annex 4.5.2.10).

- Palace only a pot was recovered.

- South Palace had the presence of pot, flint, and point. These artefacts could have been multifunctional.

Seibal was composed of different structural groupings, of which Groups A and D will be the focus (Annex 4.5.2.11).

- A Group
 - * A14 and A15 contained a cache, male, and female burials. The ornaments, such as jade earplug and collar, could have belonged to the dead individuals.
 - * A24 housed male, female, and infant burials. The jade piece could have been seen as an ornament.
 - * A3 was composed of a cache with copal. Copal was mostly burnt during rituals.
 - * A2 recovered a male burial and a bowl. The bowl could have contained the remains.
- D Group
 - * Northwest Plaza contained adult and male burials, mano, metate, obsidian, figurine, dish, tripod, and whistle. The vessel could be used as a container for food or remains. Mano and metate were used for grinding elements. Figurine and whistle could be present during rituals.
 - * Court A complex housed adult, female, and infant burials, bowl, shells, shell ornaments, and animal bones. The ornament could have belonged to the dead individuals. The vessel could have contained remains.

Tonina was a unique site where most recovered structures were located on the Acropolis (Annex 4.5.2.12).

- Structure I-7 had the presence of cache, adult, male, and infant burials. Jade, stingray spine, ceramic, vase, bowl, pearl, and *Spondylus* were found. The stingray spine could have been used for ritual enactment. The vessel could have contained food or remains.
- The residential complex had two structures.
 - * 1 contained male, female, and infant burials, metate, and ceramic. The ceramic could have served as a container for food for the dead's voyage, the remains, or tools. The metate could be multifunctional.

- * 2 had the presence of adult, male, and female burials, vase, mano, metate, and hammerstone. The vase could have contained food or remains. Mano and metate could have been used for food preparation. Meanwhile, the hammerstone was multifunctional.
- The F4 Group was composed of three structures of interest for the investigation.
 - * Structure F4-5 contained female burials, bowl, coral, shell, metate, mano, obsidian, silex point, and punch. The lithics could have served for food preparation and/or for a special workshop. The bowl might have been a container for remains.
 - * Structure F4-3 housed cache, adult, male, and infant burials, animal bone, ceramic, bowl, and plate. The vessel could be used as a container for food or remains.
 - * Structure F4-6 had the presence of cache, adult burial, animal bone, stingray spine, perforator, ceramic, disk, coral bead, shell, jade, jade bead, obsidian blade, greenstone, pyrite bead, silex point, and stucco. The ornaments could have belonged to the dead person. Stingray spine and perforator could be used in rituals. The vessel could be used as a food, a remains, or a tool container. The lithics were multifunctional.
- Great Platform housed adult and male burials. Obsidian blade, animal bone, needle, tube, bone bead, shell bead, collar, and ring, bowl, spindle whorl, and cup were discovered. The ornaments could have pertained to the dead individuals. Rituals, workshops, and textile production activities could have occurred on this platform. The bowl and cup might be used as a container for food or remains.
- Structure G5-1.2 contained a cache, spatula, obsidian blade, stucco, gold, and point. These artefacts were precious stones and multipurpose lithics.
- Structure H6-4 had the presence of a cache, jar, obsidian blade, silex point, point, and polished obsidian. The jar could be a container for food or tools. The lithics were multifunctional and could not be ascribed to a special activity.
- Altar of Sacrifice had the presence of adult burial, jade, animal bone, metate, point, figurine, disk, whistle, and cup. The figurine and whistle could be used during rituals. The cup could contain food, remains, or tools. The lithics were multifunctional.

- Structure H6-2.3 contained cache, jade, *Spondylus*, shell, obsidian blade, hammerstone, greenstone, stucco, point, iron mosaic, ax, and yugo. The yugo was a ballgame implement. The lithic assemblage could be multifunctional, but it could also be part of a specific workshop. The precious stones and shells could be seen as ornaments that were offered.
- First platform had the presence of spindle whorls, perforator, mano, ax, and polisher. The lithics were multifunctional. The spindle whorl could attest that the textile production activity could have occurred on this first platform.
- Underworld Palace housed an adult burial. Jade, animal bone, needle, shell, shell bead and disk, mano, metate, obsidian, obsidian blade, point, ax, polisher, scrapper, ceramic, figurine, vase, disk, plate, stamp, spindle whorl, whistle, box, cup, sahumador, and brazier were discovered. Various activities such as textile production, rituals, administration, food preparation, and workshops could have occurred here. The shell bead could have been an ornament pertaining to the dead person. The vessel could have served as a food, remains, or tools container.
- War and Fret Palace had the presence of cache, shell pendant, animal bone and teeth, jade bead and mask, mano, obsidian blade, ax, ceramic, figurine, vase, spindle whorl, incense burner, box, and cup. Ornaments and ritual tools were found. The textile production could be attested through the discovery of spindle whorls. Mano, ax, and obsidian blade were multifunctional tools.
- Second platform housed adult and infant burials. Shell, animal bone, vase, spindle whorl, obsidian, obsidian blade, gold, point, polished obsidian, ax, and knife were recovered. The vase could have contained food, remains, or tools. Textile production activities might have occurred here. Some lithics could have been multifunctional, and others could have been used in a workshop.
- Third platform contained a cache, adult burial, shell ring and collar, needle, tube, bone bead, metate, mano, obsidian blade, point, iron mosaic, knife, figurine, vase, bowl, plate, cup, and brazier. The lithics were multifunctional. The needle could be used to wrap the corpse into a bundle. The ornaments could have been worn by the dead individual. Ritual and kitchen tools could have been found. The vessel could have served as a food, remains, or tools container.
- Structure E5-15 housed adult and male burials. Jade, obsidian blade, pyrite bead, disk, pearl, spatula, and animal bone were discovered. The ornaments

could have belonged to the dead individuals. The obsidian blade was multifunctional.

- Structure E5-3 contained a female burial. As grave goods, she mostly had ornaments (jade beads, gold, marble, shell ring and beads).
- Structure E5-17 had the presence of infant burial, jade, animal bone, shell, shell collar, obsidian, obsidian blade, point, punch, ax, figurine, vase, disk, stamp, spindle whorl, incense burner, and whistle. The shell collar could have been worn by the dead person. Activities such as workshops, rituals, textile production, and administration could have taken place in this structure. The vase could have contained food or remains.
- Sixth platform housed cache, adult, and infant burials. Jade beads, animal bones and teeth, asta, metate, mano, obsidian, charcoal, point, ax, figurine, vase, bowl, stamp, spindle whorl, box, and cup were recovered. The ornaments could have pertained to the dead individuals. The lithics were multifunctional. Rituals, textile production, administration, and probable food preparation activities occurred on this platform. The vessel could be a container for food for the dead's journey, the remains, or tools.
- Seventh platform contained cache, adult burial, bowl, box, obsidian blade, and ax. The obsidian blade and ax were multifunctional and could not be ascribed to a specific duty. The bowl and box could contain remains or tools.
- Structure D5-5 had the presence of cache, ceramic, animal bone, mano, metate, obsidian, and obsidian blade. The lithics could be used for food preparation, or they could be used for multipurpose purposes. The vessel could have served as a container for food or tools.
- Structure D5-1 housed a cache, adult burial, animal bone, jade, jade bead, ceramic, jar, disk, shell bead, pendant, and collar, obsidian blade, charcoal, and greenstone. The lithics were multifunctional. The vessel could be a container for food, remains, or tools. Ritual tools might have been found. The jade and shell ornaments could have belonged to the dead person.
- Structure E5-2 contained a cache and an infant burial. Jade, jade figurine, obsidian blade, iron Mosaic, figurine, animal bone and teeth, stingray spine, coral bead, shell, and *Spondylus* were recovered. The ornaments could have been worn by the dead individual. A ritual activity could be deduced from the artefacts discovered in this structure. The obsidian blade was multifunctional.

Xpujil was a secondary centre in which only one structure will be of interest for this study (Annex 4.5.2.13).

- Structure 1 had a cache containing a point. The point could be used for different activities; it was multifunctional.

Xunantunich was a secondary centre composed of various architectural groups. A few structures present will be the focus of the investigation (Annex 4.5.2.14).

- C Group housed adult and infant burials. Drills, turtle carapace, shell earplug, jade bead and earplug, bowl, incense burner, jar, dish, plate, and vase were discovered. The ornaments could have belonged to the dead individuals. Incense burner and turtle carapace could have played a role in rituals. The vessel could have contained food for the dead's voyage, remains, or tools.
- B Group contained adult and female burials, whistle, and cup. The cup could be a container for food, remains, or tools. The whistle could be used for rituals.
- Castillo only housed adult burials without grave goods.
- Structure A7 had the presence of cache, charcoal, shell, bowl, jade, obsidian, celt, hammerstone, and knife. Shell and precious stones could have been part of the offering. The bowl could be the container for the tools. The lithics could have been involved in specific activities that are unknown.
- Structure A1 contained an adult burial and incense burner. The incense burner was qualified as a ritual tool.
- Ballcourt 2 only had shells.
- Structure A9 housed an adult burial. Bowl, jade earplug, obsidian blade, and point were recovered. The ornament could have been worn by the dead person. The blade and point were multifunctional. The bowl could have served as a food, remains, or tools container.
- Structure A11 had the presence of adult burial, drum, and patolli game. The artefacts could have been used for rituals or games in meetings.
- Structure A13 contained adult burial, obsidian, and groundstone. The lithics could have been involved in various activities.
- Plaza A2 housed cache and adult burials. Charcoal, animal bone, spindle whorl, pot, obsidian, obsidian blade, point, shell, shell bead and tinkler were

discovered. The ornaments could have belonged to the dead person or been part of the offering. Activities such as rituals and textile production could have occurred in the structure. The lithics present were probably multifunctional.

- Structure A4 contained an adult burial, jade bead, obsidian, and biface. These artefacts were multifunctional lithics and ornaments that the dead person could have owned.
- Structure A15 housed male and infant burials. Jade beads, animal teeth, and disk were found. The dead individuals could have worn jade beads.

Yaxha was a site composed of multiple structural complexes (Annex 4.5.2.15).

- South Acropolis housed cache, adult, and infant burials. Shell, shell plaque, bowl, plate, figurine, miniature jar, incense burner, cylinder, jar, antler, animal bone, bone pendant, flake chert, obsidian, obsidian blade, scraper, knife, chisel, ax, metate, hammerstone, spatula, polisher, disk, point, miniature metate, obsidian flake, and mano. The ornaments could have belonged to the dead individuals. Some lithics could have been used for specific duties, and others were multifunctional. Ritual and food preparation tools might have been found in this area. The vessel could be a container for food for the dead's voyage, the remains, or tools.
- East Acropolis contained male burial, cinnabar, shell, *Spondylus*, animal bone, jade, jade pendant, bowl, plate, and cylinder. The ornament could have been worn by the dead person. The presence of cinnabar could attest to the funerary practices used. The bowl, plate, and cylinder probably contained food, remains, or tools.
- Corozo Group had the presence of male burial, plate, cylinder, spindle whorl, and miniature cylinder. Ritual and textile production activities might have taken place there. The vessel could be a container for food or tools.
- Chichicua Group housed male and female burials. The bowl might have been used as a container for food or tools.
- Cheje Group contained cache, adult, male, and female burials, *Spondylus*, jade bead, animal bone, feather handle, awl, needle, tube, hook, bowl, figurine, incense burner, drum, knife, metate, polisher, point, and mano. The ornaments could have belonged to the dead individuals. Activities such as rituals, textile

production, food preparation, fishing, and lithic workshops could have occurred in this group.

- Escobedo Group only had a female burial without grave goods.
- Maler Group housed adult, female, and infant burials. Excentrics, stingray spine, and whistle were ritual tools. Animal teeth and jar were also found. The vessel could be a container for food for the dead's journey, the remains, or tools.
- North Acropolis contained cache, male, female, and infant burials, figurine, obsidian blade, shell beads, collar, and bracelet. The ornaments could have been worn by the dead persons. The blade was multifunctional. Figurines could be used for rituals or as toys.
- West Group had the presence of cache, adult burial, shell, animal bone, flake chert, obsidian, obsidian blade, polisher, bowl, figurine, incense burner, pot, and miniature bottle. The lithics might have been involved in a workshop. Some ritual tools were recovered from this group. The bowl, pot, and miniature bottle could have contained food, remains, or tools.
- Saraguate Group housed cache, male and female burials. Jade bead, needle, flake chert, obsidian, excentrics, bowl, plate, cylinder, and spindle whorl were found. The jade bead could be an ornament worn by the dead individual. Excentrics were ritual tools. The lithics could have been used in multiple activities. The needle and spindle whorl could attest that a textile production activity could have occurred in this group. Bowl, plate, and cylinder could have served as a container for food, remains, or tools.

Yaxuna was a site from which various structural complexes will be investigated here (Annex 4.5.2.16).

- The Plaza from Central and East Acropolis had a cache composed of a vase and a box. The vessel could be used as a container for food or tools.
- Structure near the *Sacbe* to Coba contained vase and incense burner. The vase could have contained food. The incense burner was qualified as a ritual tool.
- The South Group was composed of three unknown structures numbered by the author from 1 to 3.

* 1 housed adult burial and a vase.

- * 2 only a knife and incense burner were found. The incense burner was a ritual tool, and the knife could be multifunctional.
- * 3 housed adult, male, and female burials. Jade beads, shells, animal bones, vase, cup, box, knife, and flint nucleus were discovered. The lithics might have been multifunctional. The vessel could be a container for food, remains, or tools. The jade bead could have pertained to the dead individuals.
- The North Acropolis complex also had three structures that the author numbered from 1 to 2 for its analysis.
 - * 1 housed male and adult burials. Vase, cup, box, figurine, incense burner, jar, pot, bowl, dish, plate, ring, shell, *Spondylus*, shell earplug, pectoral, and bead, mat, cinnabar, blade, knife, point, antler, turtle carapace, animal bone, jade bead, anklet, pendant, and figurine. The ornaments could have belonged to the dead individuals. The presence of mat and cinnabar could give information about the funerary practices. The lithics were multifunctional. The vessel could have served as a food, remains, or tools container. Figurine and incense burner could belong to ritual tools.
 - * 2 had the presence of adult, male, female, and infant burials, pellet, blade, ax, mano, celt, cinnabar, shell, *Spondylus*, shell plaque, disk, bead, and figurine, jade bead, diadem, bracelet, anklet, earplug, pendant, figurine, and collar, antler, turtle carapace, animal teeth and bone, stingray spine, awl, pin, perforator, vase, cup, box, figurine, pot, bowl, dish, and cylinder. The ornaments could have been worn by the dead individuals. Funerary practices could have been gained through the burials discovered in this structure. Lithic workshops, textile production, and ritual activities could have occurred here. The vessel could be a container for food for the dead's voyage, the remains, or tools.
 - * Popol Nah contained female burial, shell, jade bead, animal bone, vase, spindle whorl, jar, mirror, point, metate, and polisher. The ornament could have been worn by the dead person. Rituals, workshops, and textile production activities could have occurred in the structure. The vase and jar could have contained food, remains, or tools.
- Ballcourt housed male and adult burials. Knife, percutor, vase, figurine, and spindle whorl were recovered. Activities such as rituals, textile production, and workshops could have occurred there.

Tulum was a secondary site where various structures were analysed for this study of artefacts (Annex 4.5.2.17).

- Structure 1 had the presence of shell, box, and pot. The vessel could be a container for tools.
- Structure 12 contained shell, ceramic, net weight, and obsidian blade. Net weight might be used for fishing activities. The blade was multifunctional. The vessel could have served as a container for food or tools.
- Structure 17 had the presence of shell and ceramic. The vessel could have contained food or tools.
- Structure 16 only had shell and coral.
- Structures 13 and 20 housed adult burials without grave goods.
- Structure 14 contained animal bone, shell, metate, net weight, obsidian blade, vase, and ceramic. The lithics were multifunctional. The net weight could attest to a fishing duty. The vessel could have served as a container for food or tools.
- Structure 28 had the presence of ceramic, shell collar, obsidian blade, obsidian, and silex point. The vessel could be a container for food or tools. Ornaments and multifunctional lithics were found in this structure.
- Structure 26 contained ceramic, shell, and silex point. The point was multifunctional. The vessel could be a container for food or tools.
- Structure 25 housed adult burials. Shell, net weight, obsidian blade, vase, incense burner, box, and pot were found. Rituals and fishing duties might have taken place here. The blade was multifunctional. Vase, pot, and box could have served as containers for food for the dead's journey, for remains, or tools.
- Structure 30 had the presence of shell, animal bone, obsidian blade, silex point, figurine, incense burner, and ceramic. Rituals and multifunctional lithics were recovered. The vessel might have contained food or tools.
- Structure 29 contained an adult burial, obsidian blade, incense burner, box, and pot. The blade was multifunctional. The incense burner was used for rituals. Boxes and pots could be containers for food and tools.
- Structure 34 housed adult burials. Jade noseplug, animal bone, base, figurine, incense burner, box, pot, obsidian point and blade were discovered. The ornament could have belonged to the deceased person. The lithics were

multifunctional. The vessel could have served as a container for food or tools. Figurine and incense burner were ritual tools.

- Structure 33 contained infant burial, animal bone, shell, net weight, obsidian blade, obsidian, vase, incense burner, box, pot, stamp, and ceramic. Rituals, fishing, and administrative activities could have occurred in this structure. The blade was multifunctional. The vessel could be a container for food, remains, or tools.
- Structure 36 had the presence of shell, spindle whorl, ceramic, net weight, obsidian blade, and mano. Fishing and textile production tools were recovered. The vessel could have been used as a container for food or tools. The blade was multifunctional.
- Structure 37 contained ceramic, animal bone, shell, net weight, obsidian, and ax. The vessel could be a container for food or tools. The lithics were multifunctional. The net weight could attest to a fishing duty.
- Structure 32 housed adult burials. Shell, ceramic, net weight, obsidian blade, and mano were discovered. These artefacts could be multifunctional, used for fishing duties, or as a container for food or tools.
- Structure 31 had the presence of obsidian blade, ceramic, and shell. The blade was multifunctional. The vessel could be used as a container for food or tools.
- Structure 35 contained adult burial, jade beads, animal bones, shell, ceramic, figurine, obsidian point and blade, obsidian, stone bead, and silex point. The jade and stone bead could have been worn by the dead person. Figurines could be used for rituals. The vessel could have served as food for the dead's voyage, for remains, or tools. The lithics could have been of multipurpose use, but they could also have been involved in a specific workshop.
- Structure 45 housed adult burials. Brazier, shell, carbon, animal bone, mano, and obsidian were discovered. Ritual tools and multifunctional lithics were found in the structure.

Dzibilchaltun was a vast site where a large number of structures were investigated (Annex 4.5.2.18).

- Residential Complex contained cache, adult, male, female, and infant burials. Copper bell, mano, metate, jade bead, mosaic inlay element, and ornament, awl,

weaving sticks, needle, shell bead, ornament, mosaic inlay element, carved, and tinkler, trumpet, *Spondylus*, figurine, sherd, sherd disk, pellet, plate, whistle, jar, vase, dish, bowl, cup, box, and urn were discovered. The ornaments could have belonged to the dead individuals. Various activities occurred there, such as rituals, textile production, and food preparation. The vessel could be used as a container for food, remains, or tools.

- Residence South End only housed an adult burial.
- Palace contained adult, male, and female burials, fragment and carved jade, metate, polisher, shell ornament, ring, and tinkler, trumpet, figurine, sherd, pellet, ocarina, jar, vase, dish, incense burner, bowl, cup, and box. The vessel could be used as a container for food, remains, or tools. Ritual tools and ornaments were found. The lithics could suggest that maybe a jade workshop took place there.
- Doll Residence Complex had the presence of cache, adult and infant burials, jade bead and ornament, copper bell and ring, awl, animal bone, pestle, weaving picks, *Spondylus*, shell bead and ornament, trumpet, stone bead, spindle whorl, knife, mano, metate, point, polisher, loom weight, raedera, percutor, scrapper, ax, disk, figurine, sherd, ocarina, whistle, jar, vase, flute, bowl, cup, box, and urn. The lithics were used for a special workshop activity that is not yet known. Ornaments were worn by the dead persons. The vessel could have served as a food, remains, or tools container. Ritual and textile production artefacts were found in this complex of structures.
- Structure 44 had the presence of knife, vase, plate, incense burner, bowl, cup, and box. Ritual tools were found in this structure. The vessel could have served as food and tool containers.
- Structure 42 contained cache, male burials, copper, jade bead and ornament, asta, animal bone, vase, plate, incense burner, bowl, cup, and box. These artefacts were used for rituals and as containers for food, remains, or tools. The ornaments could have been worn by the dead person.
- Platform next to Structure 42 had the presence of metate, point, ax, vase, incense burner, bowl, cup, and box. The lithics could have been multifunctional. The vessel could have been used as a container for food or tools. The incense burner was part of the rituals.

- Structure 36 is a pyramid where shell bead, awl, and sherd disk were found. The shell bead was an ornament that could have pertained to the inhabitants of the building.
- Platform next to Structure 36 had the presence of trumpet, shell tinkler, copper bell, jade bead, sherd, and pellet. Ornaments and ritual tools were discovered on the platform.
- Platform next to Structure 38 housed cache, female burial, copper plaque, jade, jade ornament, bead, and mirror, bone medallion and scrapper, sherd disk, ceramic ornament, shell bead, *Spondylus*, biface, knife, blade, metate, point. The lithics were multifunctional. Ornaments and ritual tools were discovered there.
- Residence South had the presence of cache, adult and infant burials, jade, shell bead, mosaic inlay element, and ornament, *Spondylus*, jade bead and mosaic inlay element, blade, jaguar claw, and animal bone. The dead individuals could have worn ornaments. Jaguar claws could give hints about the funerary practices.
- Temple End of the *sacbeob* housed cache, adult, male, female, and infant burials. Spindle whorl, metate, mirror, shell bead, ornament, mosaic inlay element, carved, and tinkler, trumpet, jade bead, awl, weaving picks, spatula, antler, needle, sherd, sherd disk, pellet, bowl, stamp, jar, vase, dish, and plate were found. Ornaments present there might have been worn by the dead individuals. Various activities occurred in this structure, such as textile production, rituals, and administration. The lithics were multifunctional. The vessel could have served as containers for food for the dead's voyage, the remains, or tools.
- Seven Doll Pyramid contained a cache, *Spondylus*, shell bead, ornament, mosaic inlay element, and carved, trumpet, copper bell, awl, stingray spine, animal bone, jade, jade bead, ornament, mosaic inlay element, chips, and whistle, biface, knife, blade, metate, figurine, vase, dish, cup, box, and incense burner. Many ornaments could have been found, maybe as offerings. Ritual tools such as trumpet, stingray spine, whistle, figurine, and incense burner were recovered in the pyramid. The vessel could have served as a container for food or tools. The lithics might not have been ascribed to a special purpose.
- Structure East Seven Doll Pyramid only cache and metate were found.

- Structure South Seven Doll Pyramid had metate and sherd.
- Structure next to Structure 44 housed a cache and an adult burial. Jade ornament, *Spondylus*, biface, knife, metate, ax, polisher, spindle whorl, vase, incense burner, bowl, cup, and box were discovered. The ornaments could have belonged to the dead persons. Activities such as rituals and textile production took place there. The vessel could be used as a container for food, remains, or tools. The lithics could have been multifunctional. However, few artefacts, such as axes and polishers, could attest to a workshop activity.
- The Doll Group is composed of a stela platform, temple, and seven structures. The author named them after their numeration.
 - * Stela platform housed adult burial, sherd, pellet, and jade ornament. The ornament could have pertained to the dead person.
 - * Temple had only sherds.
 - * 1 shell ornament and *Spondylus* were found.
 - * 2 only shell tinklers were present.
 - * 3 contained cache, shell bead and ornament, *Spondylus*, sherd disk, bowl, jade, jade ornament and mosaic inlay element, spindle whorl, blade, metate, and loom weight. Lithics present here were multifunctional. The vessel could have served as a container for food or tools. The spindle whorl and loom weight could attest that a textile production activity occurred in this structure. Ornaments were also discovered.
 - * 4 had the presence of cache, male burial, jade, jade bead, ornament, and mosaic inlay element, *Spondylus*, shell bead, ornament, and mosaic inlay element. All these ornament elements could have been offered and worn by the dead person.
 - * 5 housed cache, animal bone, *Spondylus*, jade bead, blade, metate, sherd disk, and bowl. The lithics were multifunctional. The vessel could be a container for food or tools. Ornaments could be placed there as an offering.
 - * 6 had the presence of sherd, metate, stingray spine, animal bone, shell bead, ornament, chip, and mosaic inlay element, jade, jade bead, ornament, carved, and chip. These artefacts were used as ornaments and for rituals.
 - * 7 contained cache, sherd disk, jade, jade bead, stingray spine, animal bone, *Spondylus*, shell bead, carved, ornament, and mosaic inlay element. The artefacts present in this structure are ornaments and ritual tools.

5.6.3) *Small settlements*

Under small settlements, three sites from the investigation will be analysed. Here, too, the artefacts recovered from the different structures will be located on maps. The sites in question are Chan, Joya de Ceren, and Nacimiento.

Chan was composed of various structural complexes. Two groups will be the focus of this investigation (Annex 2.5.3.1).

- Central Group will be the first complex under study.
 - * Central Plaza had the presence of cache, jade ornament, candelero, obsidian, celt, shell bead, figurine, bowl, jade, jade bead, incense burner, disk, animal bone, biface, and antler. Ornaments and ritual tools were found. The vessel could be used as a container for food or tools. The lithics could be multifunctional.
 - * E Group housed female, male, and adult burials. Jar, jade pendant, dish, figurine, obsidian blade, stingray spine, bowl, *Spondylus*, shell, jade, jade bead and pendant, excentrics, vase, plate, incense burner, obsidian, jade celt, turtle carapace, shell bead, and animal teeth were recovered from the structure. The ornaments could have belonged to the dead individuals. Figurine, stingray spine, excentrics, incense burner, and turtle carapace could be used in ritual activities. The vessel could contain food, remains, or tools. The blade was multifunctional.
 - * Structure 6 contained patolli game, jar, spindle whorl, antler, dish, and bowl. The patolli game could be played during meetings. The spindle whorl could attest that a textile production activity might have occurred here. The vessel could be a container for food or tools.
 - * West Plaza housed adult, male, and female burials. Figurine, excentrics, brazier, shell, mano, metate, net sinker, biface, and obsidian were discovered. A net sinker could be used for fishing. Mano and metate could be involved in food preparation. Biface and obsidian were multifunctional. Figurine, excentrics, and brazier were qualified as ritual tools.
- Northeast Group was a group in which three structures were analysed.

- * 1 housed male and adult burials. Bowl, dish, plate, jade and shell bead were found. The ornaments could be worn by the dead individuals. The vessel could have served as a container for food for the dead's journey, remains, or tools.
- * 3 contained male and adult burials, bowl, dish, plate, vase, shell bead, disk, and animal bone. The shell bead could be an ornament worn by the dead person. The vessel could have contained food, remains, or tools.
- * 6 housed adult burials. Shell, shell disk, obsidian blade, bowl, dish, and jar were recovered from this structure. Blades were multifunctional. The vessel could have served as a food, remains, or tools container.

Joya de Ceren was a well-preserved site with four household groupings (Annex 2.5.3.2).

- Household 1 was composed of six structures of interest for this study.
 - * Structure 5 only housed an adult burial and obsidian.
 - * Structure 1 contained metate, mano, spindle whorl, pot, pigment, and seeds. In this structure, the production of textiles and the preparation of pigments could be done for the dying of textiles.
 - * Structure 6 had mano, metate, and hammerstone. These artefacts could be involved in a specific activity.
 - * Structure 11 was a kitchen. Bone sticks, mano, metate, obsidian blade, celt, seeds, wood, charcoal, basket, mat, spindle whorl, gourd, jar, cylinder, and bowl were recovered. The lithics were multifunctional. The vessel could have served as a container for food or tools. Food was prepared, and textile production activities probably took place there.
 - * Structure 10 had the presence of a jade headdress, mano, metate, obsidian blade, spindle whorl, gourd, jar, and bowl. The ornament was found in this structure. The vessel could be a container for food or tools. Food could have been prepared, and textile production duties might have been present.
 - * Structure 12 contained antler, shell, shell collar, mano, metate, obsidian blade, spindle whorl, pot, gourd, jar, bowl, figurine, and disk. Ornament and ritual tools were discovered. Textile production activities could be attested to this structure. The vessel could have contained food or tools.
- Household 2 had two structures, which will be analysed.

- * Structure 7 contained pigment, seeds, needle, shell bead and pendant, mano, obsidian blade, celt, spindle whorl, jar, cylinder, bowl, disk, plate, and figurine. Ornaments and multifunctional lithics were found. Administration, rituals, and textile production could have been practiced in this structure. The vessel could be used as a container for food or tools.
- * Structure 2 had the presence of shell, seeds, spindle whorl, jar, incense burner, obsidian, hammerstone, obsidian blade, scraper, mortar, pestle, and whetstone. Multiple activities could have occurred here, such as rituals, administration, textile production, and lithic workshop.
- Household 3 was composed of three structures that will be taken into focus.
 - * Structure 16 was a kitchen composed of metate, jar, and charcoal.
 - * Structure 4 contained pigment, seeds, textile fragments, sticks, needle, awl, metate, obsidian blade, ax, pot, gourd, jar, bowl, incense burner, and plate. The lithics were multifunctional. Rituals, administration, and textile production activities could have occurred in this structure. The vessel could be used as a container for food.
 - * Structure 3 had the presence of a jar, bowl, and bone stick. The vessel could be a container for food or tools.
- Household 4 contained one structure of interest.
 - * Structure 13 had the presence of wood, turtle carapace, obsidian, obsidian blade, and stone ball. The lithics might have been involved in various activities. The turtle carapace could be used as a musical instrument for rituals.

Nacimiento was a small settlement that was spatially widespread. Eight structural groupings will be of interest for this artefactual investigation (Annex 2.5.3.3).

- Dueno Agitado had bowl, cylinder, biface, and obsidian blade. The lithics were multifunctional and could not be ascribed to one specific activity. Bowls and cylinders could be containers for food or tools.
- Caballo Alborotado contained grinding stones, probably for food preparation. Animal teeth, obsidian blade, bowl, and plate were discovered. The blade was multifunctional. The vessel could have served as a container for food or tools.
- Ballcourt only had a bowl. It could be used as a container for food or tools.

- Cabana had the presence of mano, plate, and bowl. Mano could be multifunctional. Plates and bowls could have been containers for food or tools.
- Cana de Azucar contained an incense burner, spindle whorl, and grinding stones. Textile production and food preparation activities could have taken place there.
- Jorge Sola had only a polisher and biface. This group might have been involved in a polishing activity.
- Chispa was a group composed of five structures whose artefactual context was recovered.

* Structure 1 contained cache, adult burials, ceramic pendant, plate, incense burner, obsidian, drill, bowl, hammerstone, biface, figurine, obsidian blade, mano, metate, jar, flute, and graver. The ceramic pendant might have been worn by the dead individual. Incense burner, figurine, and flute were used in rituals. The vessel could contain food, remains, or tools. The lithics could be involved in workshops.

* Structure 2 housed cache and adult burials. Shell pendant, animal teeth, shell ring, whistle, bowl, obsidian blade, disk, polisher, mano, figurine, incense burner, spindle whorl, and shell earplug were found. The ornaments, which could have belonged to the dead individual and ritual tools, were recovered from the structure. The vessel could have served as a food, remains, or tools container. The lithics could be multifunctional or have played a role in workshops such as pottery production.

* Structure 3 had the presence of adult burial, obsidian, grinding stone, whistle, incense burner, plate, bowl, shell, animal bone, obsidian blade, polisher, miniature incense burner, disk, and figurine. Ritual tools were discovered. The lithics could be involved in workshops or food preparation activities. The plate and bowl could have contained food, remains, or tools.

* Structure 4 contained an adult burial, ceramic pendant, plate, bowl, figurine, and incense burner. The pendant could be worn by the dead person. Figurines and incense burners were used in rituals. The plate could have served as a food, a remains, or a tool container.

* Structure 6 had the presence of a spindle whorl, figurine, hammerstone, obsidian blade, incense burner, and flute. Textile production and ritual activities

might have taken place in this structure. Blade and hammerstone were probably multifunctional.

- Dos Ceibas was a group in which artefacts were found in two structures.
 - * Structure 5 had the presence of a mano, pestle, figurine, incense burner, and spindle whorl. Pestle and mano could be involved in administrative duties. Figurine and incense burner were ritual tools. The spindle whorl could attest that a textile production activity could have occurred here.
 - * Structure 12 only had an adult burial without grave goods.

After this exhaustive recompilation of artefacts recovered in the various structures from primary sites, secondary sites, and small settlements, the aim will be to identify which artefacts were more present in the sample of visited sites, in which type of structures they appeared, and if their presence might be related to gender if they would have been placed within grave goods assemblages. The goal is to identify if there might be a tendency for artefacts to be used more in a special type of structure and by a specific gender, to understand if a special activity could have taken place there. For this, four categories of artefacts (lithic, ceramic, bone and perishable, jade and shell) will be statistically analysed. Once the categories of artefacts are investigated, the author wants to question whether the materiality of artefacts played a role in the type of structure and/or gender. It can be supposed that more sumptuous materials should have been used in structures with a high value for society and the social class of people with access to them.

The analysis will start with the lithic artefacts found in structures without and then with burials. The histogram (Figure 92) shows that a multitude of lithic artefacts were recovered in different structure types. The highest lithic artefact amount comes from the residential structures including 13 axes, six bifaces, 27 blades, three celts, one chip, one disk, one flake blade, three hammerstones, 13 knives, one loom weight, 21 manos, 34 metates, four mirrors, two mortars, four net weights, eight nuclei, eight obsidian, one obsidian arrowhead, one pedernal, one percutor, three perforator, three pestles, ten points, four polisher, four scrapper, one silex, one spindle whorl, and one whetstone.

The ceremonial structures counted with five axes, two bifaces, eleven blades, one celt, one chip, one crusher, one dagger, one drill, two flakes, one flint, two hammerstones, one iron mosaic, ten knives, eight metates, six manos, one miniature metate, one mirror, one net weight, seven obsidian, seven points, and one punch.

Two axes, one bark beater, five blades, one crusher, three excentrics, one flake, four knives, one macerator, five manos, four metates, one mirror, four nuclei, two obsidian, four percutors, five points, two polishers, and one stone ball were discovered in political structures.

The civic structures contained two axes, one biface, six blades, one crusher, one gold, one greenstone, two hammerstones, one iron mosaic, seven knives, five manos, six metates, two nuclei, three obsidian, one pendant, two percutors, one perforator, one plaque, 14 points, one polished obsidian, two polishers, two pyrite, one silex, one spear, two stucco, one weight, and two yugos.

Five axes, one biface, one blade, one celt, one chip, two crushers, one flint, seven knives, one macerator, four manos, three metates, one mirror, one net weight, three nuclei, five obsidian, one pendant, one percutor, six points, three polishers, and one scrapper were found in open spaces.

To conclude, multifunctional tools such as knives, points, blades, axes, bifaces, manos, and metates were mostly found in the different structure types. A higher number of lithic artefacts were present in residential structures. This could be due to the variety of activities realised in these structures. It can be deduced that the more the lithic artefacts were present in one type of structure, the more different activities might have been realised there, requiring this materiality of tools.

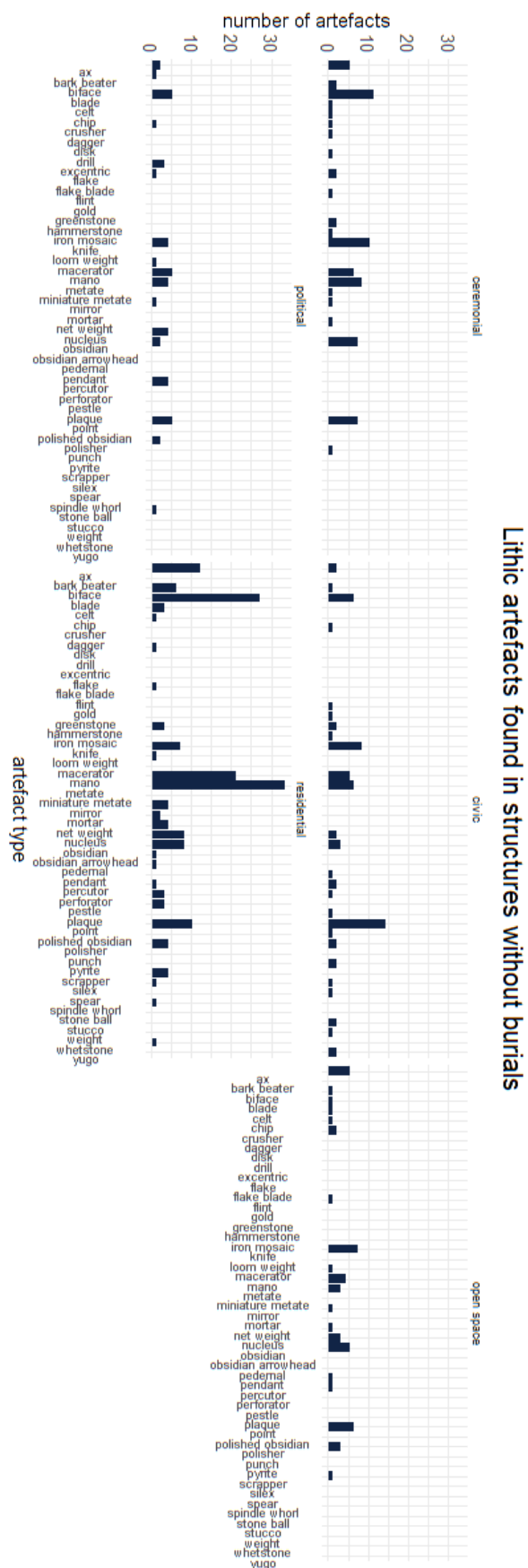


Figure 92: Histogram of lithic artefacts found in structures without burials

The following histogram (Figure 93) shows that most lithic artifacts in grave goods assemblages were blades, knives, manos, metates, nuclei, obsidian, and points. Most of the tools were found in residential and ceremonial structures.

Majority of lithic tools were associated to residential structures including twelve axes (eight from adult burials of undetermined sex, three from mixed burials, and one from female burial), one bark beater from an adult burial of undetermined sex, three beads from adult burials of undetermined sex, eleven bifaces (four from adult burials of undetermined sex, five from mixed burials, and two from female burials), 36 blades (16 from adult burials of undetermined sex, 15 from mixed burials, three from female burials, and two from male burials), one celt from adult burials of undetermined sex, three chips (two from adult burials of undetermined sex, and one from a mixed burial), four crushers (one from an adult burial of undetermined sex, two from mixed burials, and one from male burial), one disk and donut stone from an adult burial of undetermined sex, two drills and pestles from adult burials of undetermined sex, five excentrics (one from an adult burial of undetermined sex, and four from mixed burials), flakes (one from an adult burial of undetermined sex, and four from mixed burials), one flake blade and graver from an adult burial of undetermined sex, one flake chert and lancet from a mixed burial, six flints (two from adult burials of undetermined sex, and four from mixed burials), one greenstone and net weight from an adult burial of undetermined sex, nine hammerstones (six from adult burials of undetermined sex, and three from mixed burials), ten knives (six from adult burials of undetermined sex, one from a female burial, and three from mixed burials), two loom weights and whetstones from mixed burials, 24 manos (14 from adult burials of undetermined sex, eight from mixed burials, one from a female burial, and one from male burial), 31 metates (14 from adult burials of undetermined sex, 13 from mixed burials, two from female burials, and two from male burials), one miniature ax and straightener from a mixed burial, seven mirrors (six from mixed burials, and one from male burial), four mortar (three from adult burials of undetermined sex, and one from a mixed burial), ten nuclei (three from adult burials of undetermined sex, five from mixed burials, one from male burial, and one from a female burial), 13 obsidian (seven from adult burials of undetermined sex, four from mixed burials, one from male burial, and one from a female burial), three pedernal (one from adult burial of undetermined sex, two from

mixed burials, and one from male burial), seven percutors (four from adult burials of undetermined sex, and three from mixed burials), three perforators (two from adult burials of undetermined sex, and one from a mixed burial), 20 points (ten from adult burials of undetermined sex, five from mixed burials, three from female burials, and two from male burials), nine polishers (seven from adult burials of undetermined sex, and two from mixed burials), one punch from a female burial, one raedera, spatula, and stucco from an adult burial of undetermined sex, four scrapper (two from adult burials of undetermined sex, one from a female burial, and one from male burial), two spindle whorls (one from an adult burial, and one from a mixed burial), and two yokes (one from an adult burial, and one from a mixed burial).

The civic structures contained one biface, one groundstone, one knife, one mano, one metate, one obsidian, one perforator, and one point from adult burials of undetermined sex. Also, one knife and one perforator were found in mixed burials.

From the ceremonial structures, ten axes (three from adult burials of undetermined sex, six from mixed burials, and one from male burials), one bark pounder and bipoint from mixed burials, three beads (one from an adult burial of undetermined sex, and two from mixed burials), two bezotes (one from a mixed burial, and one from male burial), six bifaces (four from adult burials of undetermined sex, one from a mixed burial, and one from male burial), 24 blades (eight from adult burials of undetermined sex, 13 from mixed burials, and three from male burials), one celt and copal from mixed burials, five chips (one from an adult burial of undetermined sex, three from mixed burials, and one from male burials), one collar and gold from female burials, one crusher and greenstone from adult burials of undetermined sex, one disk and hammerstone from mixed burials, five excentrics (four from mixed burials, and one from male burial), four flakes (three from mixed burials, and one from male burial), eleven flints (one from an adult burial of undetermined sex, seven from mixed burials, and three from male burials), 22 knives (ten from adult burials of undetermined sex, ten from mixed burials, and two from male burials), one loom weight and raedera from adult burials of undetermined sex, 18 manos (seven from adult burials of undetermined sex, ten from mixed burials, and one from a female burial), 14 metates (six from adult burials of undetermined sex, seven from mixed burials, and one from male burial), one miniature metate from a female

burial, nine mirrors (two from adult burials of undetermined sex, six from mixed burials, and one from a female burial), two mortars (respectively one from adult burial of undetermined sex and mixed burial), twelve nuclei (five from adult burials of undetermined sex, five from mixed burials, and two from male burials), eleven obsidian (five from adult burials of undetermined sex, and six from mixed burials), one pebble, pedernal, pellet, perforator, pestle, and silex from mixed burials, four percutors (two from adult burials of undetermined sex, one from a mixed burial, and one from male burial), 15 points (nine from adult burials of undetermined sex, eleven from mixed burials, four from male burials, and one from a female burial), five polisher (four from adult burials of undetermined sex, and one from a mixed burials), one spear from an adult burial of undetermined sex, and two yokes (one from an adult burial of undetermined sex, and one from a mixed burial) were recovered.

The open spaces contained three axes, one biface, six blades, one excentric, one flake, two iron mosaics, two knives, three manos, five metates, one miniature metate, three obsidian, six points, one polished obsidian, and one silex, which were linked to adult burials of undetermined sex. One biface, one blade, one excentric, one knife, two manos, two metates, one net weight, two obsidian, and one point were associated with mixed burials. One point was placed in a male burial.

From political structures, five axes (three from adult burials of undetermined sex, and two from mixed burials), two beads (one from an adult burial of undetermined sex, and one from a mixed burial), two bifaces (one from a mixed burial, and one from a female burial), ten blades (four from adult burials of undetermined sex, three from mixed burials, one from male burial, and two from female burials), one chipped stone, flake blade, smoother, and excentric from mixed burials, two crushers (one from an adult burial of undetermined sex, and one from a mixed burial), one disk, flake, miniature metate, net weight, pearl, pendant, perforator, plaque, raedera, spatula, and yoke from adult burials of undetermined sex, two flake chert from adult burials of undetermined sex, two hammerstones (one from an adult burial of undetermined sex, and one from a mixed burial), ten knives (four from adult burials of undetermined sex, four from mixed burials, one from male burial, and one from a female burial), one macerator from a mixed burial, eight manos (three from adult burials of undetermined sex, three from mixed burials, one from

male burial, and one from a female burial), nine metates (three from adult burials of undetermined sex, three from mixed burials, one from male burial, and two from female burials), two mirrors (one from a female burial, and one from a mixed burial), one mortar from a female burial, seven nuclei (one from adult burials of undetermined sex, three from mixed burials, one from male burial, and two from female burials), five obsidian (four from adult burials of undetermined sex, and one from a mixed burial), two percutors (one from an adult burial of undetermined sex, and one from a mixed burial), eleven points (five from adult burials of undetermined sex, four from mixed burials, one from a female burial, and one from male burial), seven polishers (three from adult burials of undetermined sex, three from mixed burials, and one from a female burial), four scrappers (two from adult burials of undetermined sex, and two from mixed burials), two sharpener (one from an adult burial of undetermined sex, and one from a mixed burial), and two silex (one from an adult burial of undetermined sex, and one from a mixed burial) were discovered.

In conclusion, most lithic artefacts found in residential and ceremonial structures were probably used in multifunctional activities and food preparation. In the ceremonial structures, the lithic artefacts were slightly more linked to male burials, while in residential and political structures, they were more associated with female burials. This differentiation might be due to the type of activities requiring different tools and spaces.

The next step will be to determine if a CA is possible. For this, a χ^2 test is needed. The result is 17.452, and the p-value is 0.026. Due to a p-value inferior to 0.05, a CA can be realised. The data is not linked randomly. However, 100% of the data is represented, rendering the CA superficial. The histograms are therefore sufficient.

The following analysis will be about the ceramic artefacts found in structures without and with burials. The histogram (Figure 94) illustrates that most ceramic artefacts were recovered from the residential and ceremonial structures. From the residential structures, one alabaster, 17 bowls, 14 boxes, three braziers, ten ceramics without details, five cups, four cylinders, two dishes, five disks, two drums, 24 figurines, one flute, three gourds, 25 incense burners, one incense holder, 14 jars, one miniature jar, one miniature vase, two molds, one pellet, one pendant, 16 plates, twelve pots, four sahumadores, five sherds, three sherd disks, ten spindle whorls, one stamp, 16 vases, and five whistles were found.

One alabaster, two bowls, three boxes, one brazier, one candle holder, one ceramic without detail, three cups, one disk, two figurines, two incense burners, one jar, one miniature cup, one pellet, one plate, one sahumador, four spindle whorls, and five vases were present in open spaces.

From the ceremonial structures, nine bowls, 13 boxes, three braziers, one candle holder, two ceramics without detail, seven cups, two cylinders, five dishes, two disks, 13 figurines, one gourd, 12 incense burners, two incense holders, seven jars, one medaillon, one miniature plate, seven plates, eight pots, one sherd, one sherd disk, five spindle whorls, one stamp, 13 vases, and four whistles were discovered.

One bowl, four boxes, one candle holder, one ceramic without detail, two cups, four figurines, six incense burners, three jars, one mold, one plate, two pots, one sahumador, one sherd, four spindle whorls, five vases, and two whistles were contained in political structures.

From the civic structures, four bowls, two boxes, one brazier, one cinel, five cups, one disk, four figurines, six incense burners, one incense holder, three jars, one miniature cup, one miniature plate, two plates, three spindle whorls, one stamp, and five vases were found.

In conclusion, most ceramics found in structures without burials were linked to food preparation and consumption, textile production, administrative duties, and rituals. Unsurprisingly, most of them were located in residential and ceremonial structures. The variety of ceramic tools shows the activities that might occur in the different structures.

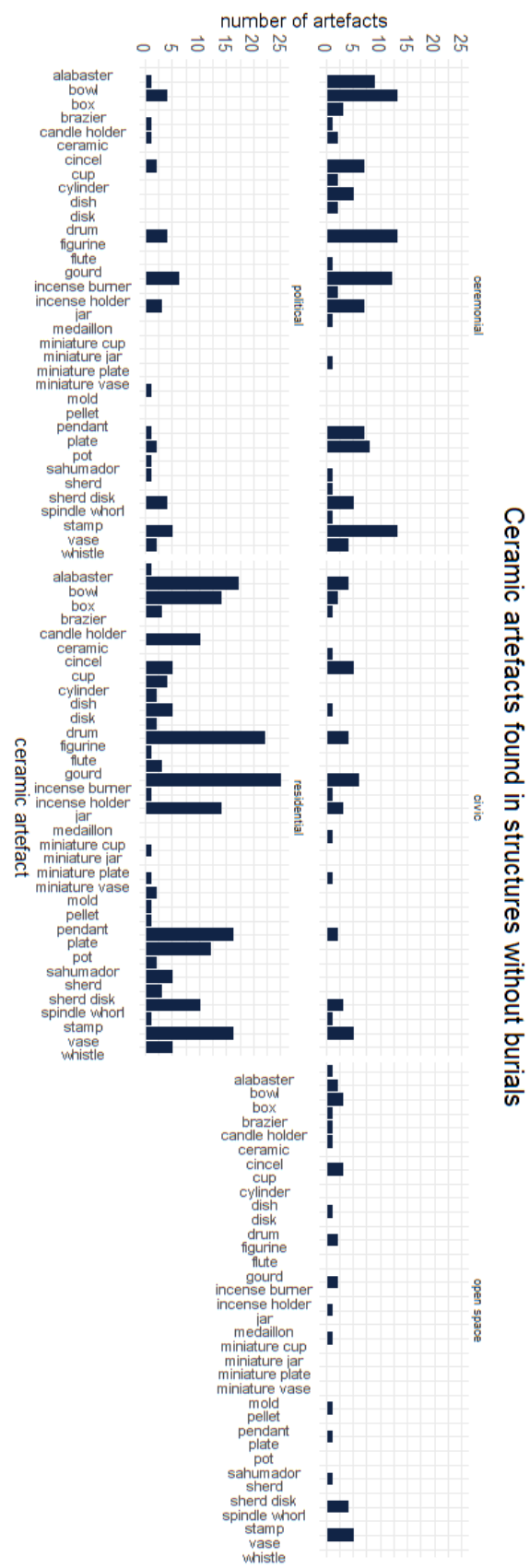


Figure 94: Histogram of ceramic artefacts found in structures without burials

The histogram (Figure 95) shows that most ceramic artefacts found in burials were composed of bowls, boxes, dishes, disks, figurines, incense burners, plates, pots, spindle whorls, and vases. They were mainly discovered in residential structures including one alabaster from adult burials of undetermined sex, 41 bowls (twelve from adult burials of undetermined sex, 21 from mixed burials, five from male burials, and three from female burials), 18 boxes (nine from adult burials of undetermined sex, eight from mixed burials, and one from male burial), four braziers (two from adult burials of undetermined sex, and two from mixed burials), six ceramics without details (three from adult burials of undetermined sex, and three from mixed burials), eleven cups (seven from adult burials of undetermined sex, and four burials of mixed burials), nine cylinders (four from adult burials of undetermined sex, three from mixed burials, and two from male burials), 15 dishes (five from adult burials of undetermined sex, nine from mixed burials, and one from a female burial), 15 disks (five from adult burials of undetermined sex, six from mixed burials, two from male burials, and two from female burials), three drums (two from adult burials of undetermined sex, and one from mixed burial), 30 figurines (17 from adult burials of undetermined sex, ten from mixed burials, two from male burials, and one from a female burial), two flutes (one from an adult burial of undetermined sex, and one from a mixed burial), 24 incense burners (14 from adult burials of undetermined sex, nine from mixed burials, and one from male burial), four incense holders (two from adult burials of undetermined sex, and two from mixed burials), 19 jars (eight from adult burials of undetermined sex, ten from mixed burials, and one from a female burial), one miniature cylinder from a male burial, one miniature incense burner from an adult burial of undetermined sex, two vases (one from an adult burial of undetermined sex, one from a mixed burial), one mold from a mixed burial, three ocarinas (two from adult burials of undetermined sex, and one from a mixed burial), one ornament from a female burial, one pendant from an adult burial of undetermined sex, two perfume bottles (one from an adult burial, and one from a mixed burial), 23 plates (seven from adult burials of undetermined sex, twelve from mixed burials, and four from male burials), eleven pots (four from adult burials of undetermined sex, five from mixed burials, one from male burial, and one from female burial), five sherds (two from adults of undetermined sex, and three from mixed burials), six sherd disks (two from adult

burials of undetermined sex, three from mixed burials, and one from female burial), 20 spindle whorls (eight from adult burials of undetermined sex, nine from mixed burials, and three from male burials), four stamps (three from mixed burials, and one from male burial), two urns (one one from an adult burial of undetermined sex, and one from a mixed burial), 35 vases (15 from adult burials of undetermined sex, 17 from mixed burials, and three from male burials), and 16 whistles (seven from adult burials of undetermined sex, seven from mixed burials, and two from male burials).

From ceremonial structures, one alabaster from a mixed burial, 26 bowls (ten from adult burials of undetermined sex, 14 from mixed burials, and two from male burials), 24 boxes (eight from adult burials of undetermined sex, ten from mixed burials, four from male burials, and two from female burials), four braziers from adult burials of undetermined sex, two candle holders (one from mixed burial and one from male burial), one ceramic without detail in adult burial of undetermined sex, 14 cups (eight from adult burials of undetermined sex, five from mixed burials, and one from male burial), ten cylinders (three from adult burials of undetermined sex, and seven from mixed burials), twelve dishes (one from an adult burial of undetermined sex, six from mixed burials, and five from male burials), 14 disks (three from adult burials of undetermined sex, eight from mixed burials, two from male burials, and one from female burials), one drum from an adult burial of undetermined sex, 23 figurines (nine from adult burials of undetermined sex, eleven from mixed burials, two from male burials, and one from female burial), two gourds from mixed burials, 26 incense burners (13 from adult burials of undetermined sex, ten from mixed burials, two from male burials, and one from female burials), three incense holders (three from adult burials of undetermined sex, and one from mixed burial), 16 jars (three from adult burials of undetermined sex, eleven from mixed burials, and two from male burials), one loom weight from a mixed burial, one miniature box from an adult burial of undetermined sex, two miniature incense burners (one from an adult burial of undetermined sex and one from a mixed burial), one miniature vase from a mixed burial, 27 plates (ten from adult burials of undetermined sex, 13 from mixed burials, two from male burials, and two from female burials), ten pots (one from an adult burial of undetermined sex, seven from mixed burials, and two from male burials), one ring from a mixed burial, two

sahumadores from adult burials of undetermined sex, seven spindle whorls (three from adult burials of undetermined sex, two from mixed burials, and two from male burials), two urns (one from an adult burial of undetermined sex, and one from a mixed burial), 30 vases (nine from adult burials of undetermined sex, 17 from mixed burials, three from male burials, and one from female burial), and five whistles (one from an adult burial of undetermined sex, three from mixed burials, and one from male burial) were recovered.

A bowl, a cylinder, a dish, a figurine, a plate, a spindle whorl, and two vases were present in mixed burials located in civic structures, while a box, a brazier, a cup, a figurine, and an incense burner were associated with adult burials of undetermined sex.

From the political structures, two alabasters (one from a mixed burial, and one from a female burial), ten bowls (three from adult burials of undetermined sex, three from mixed burials, two from male burials, and two from female burials), 13 boxes (five from adult burials of undetermined sex, four from mixed burials, two from male burials, and two from female burials), two braziers (one from adult burial of undetermined sex, and one from female burial), two ceramics without details from adult burials of undetermined sex, seven cups (three from adult burials of undetermined sex, three from mixed burials, and one from male burial), two cylinders from adult burials of undetermined sex, two dishes from male burials, five disks (one from adult burial of undetermined sex, two from mixed burials, one from male burial, and one from female burial), twelve figurines (five from adult burials of undetermined sex, five from mixed burials, one from male burial, and one from female burial), one flute from a male burial, eleven incense burners (five from adult burials of undetermined sex, three from mixed burials, two from male burials, and one from female burial), one incense holder from an adult burial of undetermined sex, five jars (one from an adult burial of undetermined sex, three from mixed burials, and one from a female burial), one miniature cup from male burial, one miniature jar from an adult burial of undetermined sex, two miniature vase (one from a mixed burial and one from a female burial), one ocarina from a mixed burial, one pendant from a mixed burial, twelve plates (six from adult burials of undetermined sex, two from mixed burials, two from male burials, and two from female burials), four pots (three from adult burials of undetermined sex, and one

from a female burials), two sahumadores from adult burials of undetermined sex, one sherd from a mixed burial, four spindle whorls (from each sex of burial type one), one stamp from an adult burial of undetermined sex, 17 vases (seven from adult burials of undetermined sex, five from mixed burials, two from male burials, and three from female burials), and five whistles (two from adult burials, and three from mixed burials) were discovered.

In open spaces, four bowls, two boxes, one brazier, five cups, one disk, three figurines, one incense burner, one plate, one pot, three spindle whorls, one stamp, three vases, and one whistle were found in adult burials of undetermined sex. Two bowls, one brazier, one cup, one dish, two figurines, one spindle whorl, one tripod, one vase, and one whistle were present in mixed burials, while one box, one incense burner, one plate, and one sahumador were contained in male burials.

To conclude, most ceramic artefacts placed in grave goods were located in residential and ceremonial structures. The most commonly found artefacts could be used as containers for food for the afterlife, textile production, and worship. It is therefore no surprise to see a higher amount in these types of structures and not in others. No significant difference in ceramic tool use between genders can be deduced. Both could be buried with similar ceramic grave goods assemblages.

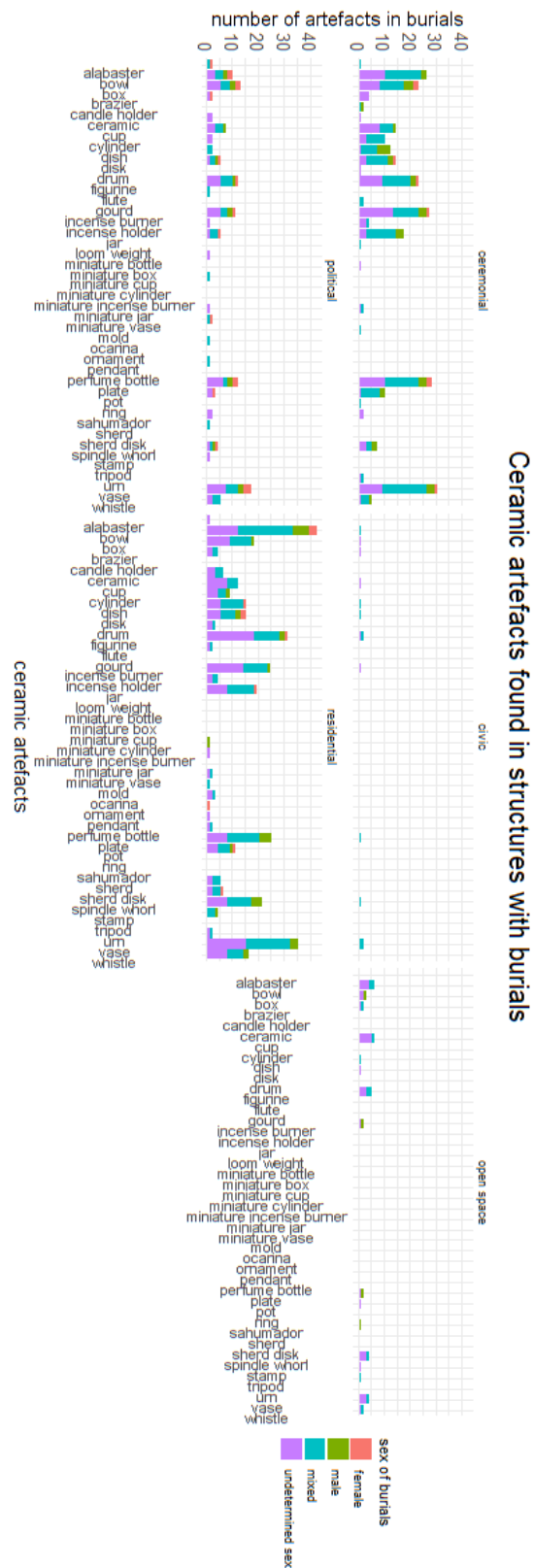


Figure 95: Histogram of ceramic artefacts found in structures with burials

A further analysis can be done, such as the χ^2 test. The χ^2 equals 36.46, and the p-value is inferior to 0.05, being here equal to $1.446e-5$. The data is not linked randomly, and a CA can be elaborated. 100% of the data is represented in the CA, making it superficial. The analysis of the histograms is sufficient.

The following analysis will deal with the bone and perishable artefacts found in structures without and with burials. From the histogram (Figure 96), it can be seen that most bone and perishable artefacts comprised animal bone, stingray spine, antler, carbon, and needle. The highest number of artefacts was recovered from residential structures including 24 animal bones, three animal teeth, two antlers, one asta, two awls, one basket, three bells, three carbon, one carved bone, two chisels, one copal, one mat, five needles, three ornaments, three pigments, five seeds, two sticks, six stingray spines, one textile cord, one textile fragment, and one wood piece.

From the ceremonial structures, 13 animal bones, two animal teeth, two antlers, two awls, one bell, one carbon, one copal, three patolli, and two stingray spines were found.

Two animal bones, two animal teeth, two carbon, one copper, one pigment, and one turtle carapace were discovered in political structures.

From the civic structures, three animal bones, two animal teeth, one antler, one bell, two hematite, one mercury, one spatula, and one stick were present.

Open spaces contained two animal bones, one antler, one carbon, one mercury, one perforator, one ring, and a set of seeds.

To conclude, most bone and perishable artefacts were found in residential structures. The tools could be used for food supply, ornaments, textile production, rituals, scribal activity, and meetings. The activities practiced in residential structures were more diversified than the other types of structures, in which only one or two specific duties were realised, such as rituals, meetings in ceremonial structures, and scribal activities in civic-political structures.

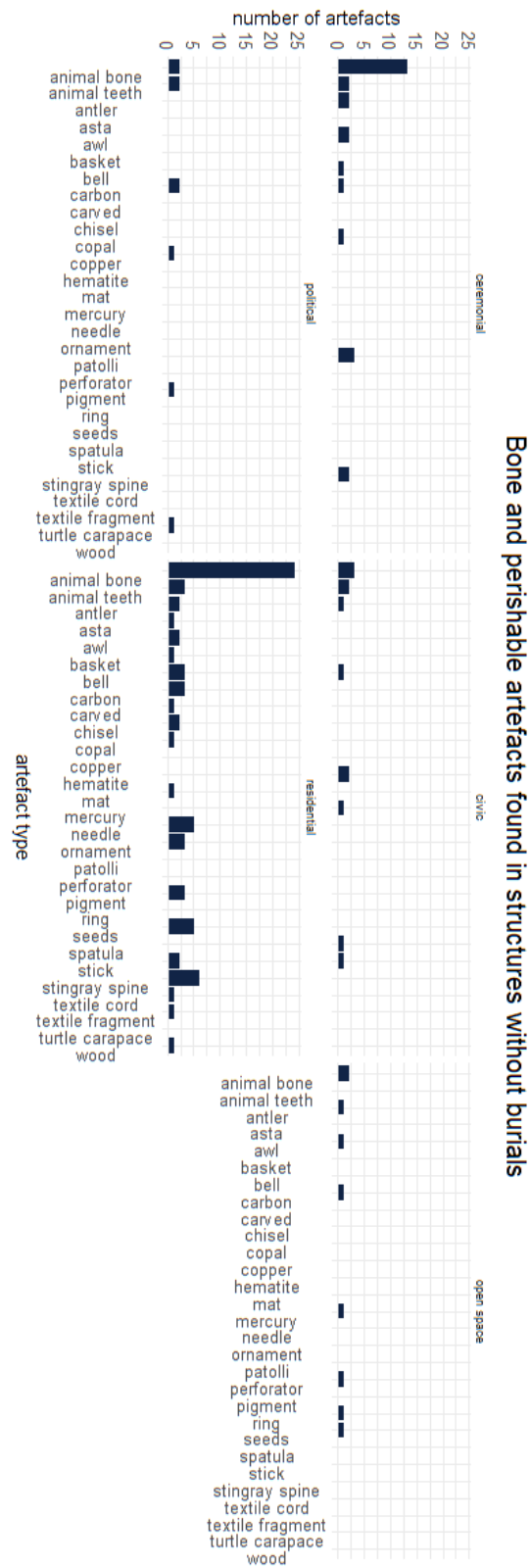


Figure 96: Histogram of bone and perishable artefacts found in structures without burials

The highest number of bone and perishable artefacts found in burials (Figure 97) were located in residential structures including 32 animal bones (16 from adult burials of undetermined sex, ten from mixed burials, four from male burials, and two from female burials), seven animal teeth (two from adult burials of undetermined sex, four from mixed burials, and one from male burial), one antler, bead, belt, cacao, copal, feather handle, human teeth, hook, jaguar pelt, mat, necklace, spindle whorl, and piece of wood from mixed burials, three astas (two from mixed burials, and one from a female burial), 13 awls (five from adult burials of undetermined sex, six from mixed burials, one from male burial, and one from a female burial), six bells (three from adult burials of undetermined sex, two from mixed burials, and one from male burial), four carbon (one from an adult burial of undetermined sex, and three from mixed burials), three chisels (two from mixed burials, and one from male burial), four cinnabars (three from mixed burials, and one from male burial), one copper, jaguar claw, and turtle carapace from adult burials of undetermined sex, one gold from male burial, one medallion, pigment, plaque, and quartz from female burials, ten needles (one from an adult burial, seven from mixed burials, one from male burial, and one from a female burial), two pestles (one from an adult burial of undetermined sex, and one from a mixed burial), four pins (one from an adult burial, two from mixed burials, and one from male burial), five rings (three from adult burials of undetermined sex, one from a mixed burial, and one from male burial), two seeds (one from a mixed burial, and one from a female burial), two spindle whorls (one from a mixed burial, and one from male burial), eight stingray spines (one from an adult burial of undetermined sex, six from mixed burials, and one from a female burial), two textile fragments (one from an adult burial of undetermined sex, and one from a mixed burial), three tubes (respectively one from an adult burial of undetermined sex, male burial, and mixed burial), and three weaving picks (one from an adult burial, and two from mixed burials).

Open spaces contained three animal bones, one animal teeth, one asta, one bead, two bells, three carbon, one cinnabar, one hematite, one needle, one pyrite, and one tube from adult burials of undetermined sex, and two animal bones, one bell, one carbon, three needles, and one tube from mixed burials.

From the ceremonial structures, 33 animal bones (15 from adult burials of undetermined sex, 15 from mixed burials, and three from male burials), six animal teeth (one from an adult burial of undetermined sex, and five from mixed burials), three antlers (one from an adult burial of undetermined sex, and two from mixed burials), one asta, basket, belt, chisel, pendant, pigment, sandals, and weaving pick from mixed burials, four awls (three from mixed burials, and one from male burial), two beehives (one from an adult burial of undetermined sex, and one from a female burial), one bell, and feather handle from adult burials of undetermined sex, eight carbon (two from adult burials of undetermined sex, three from mixed burials, and three from male burials), ten cinnabar (one from an adult burial, eight from mixed burials, and one from male burial), two codex fragments, drums, gold, and spatula from mixed burials, five copal (two from adult burials of undetermined sex, two from mixed burials, and one from male burial), one metal ball and plaque from male burials, ten needles (three from adult burials of undetermined sex, six from mixed burials, and one from male burial), two patolli (one from a mixed burial, and one from male burial), three perforators from mixed burials, five pins (one from an adult burials, and four from mixed burials), five rings (one from an adult burials, and four from mixed burials), three seeds (one from an adult burials, one from male burials, and one from a mixed burials), two spindle whorls (one from an adult burials, and one from a mixed burials), 15 stingray spines (two from adult burials of undetermined sex, ten from mixed burials, and three from male burials), nine textile fragments (one from an adult burial of undetermined sex, six from mixed burials, one from male burial, and one from a female burial), three tubes (one from an adult burials, and two from mixed burials), and seven turtle carapaces (two from adult burials of undetermined sex, four from mixed burials, and one from male burial) were found.

One animal bone and a point from adult burials of undetermined sex, and one animal bone from a mixed burial were present in civic structures.

From the political structures, 14 animal bones (seven from adult burials of undetermined sex, two from mixed burials, two from male burials, and three from female burials), one animal teeth from a male burial, one antler, belt, and drum from adult burials of undetermined sex, two asta (respectively one from a female and male burial), two awls, and spatula from mixed burials, two beads (one from an

adult burial of undetermined sex, and one from a mixed burial), two chisels (one from an adult burial of undetermined sex, and one from a mixed burial), one cinnabar, perforator, plaque, and ring from mixed burials, one jaguar claw from a female burial, four needles (one from an adult burial of undetermined sex, three from mixed burials, and one from a female burial), two patolli (one from an adult burial of undetermined sex, and one from a mixed burial), three pendants (one from an adult burial of undetermined sex, and two from mixed burials), four stingray spines (three from mixed burials, and one from a female burial), and two textile fragments (one from a male burial, and one from a mixed burial), were discovered.

In conclusion, most bone and perishable artefacts were recovered from residential and ceremonial structures. Tools such as animal bones, needles, animal teeth, asta, stingray spine, textile fragment, and cinnabar were majoritarian and could be used for the food supply, rituals, ornaments, and textile production. Bone and perishable tools in grave goods assemblages in residential and political structures were more associated with female burials, while the ones in ceremonial structures were more linked to male burials. Both genders could perform the same tasks, but their locality might be segregated.

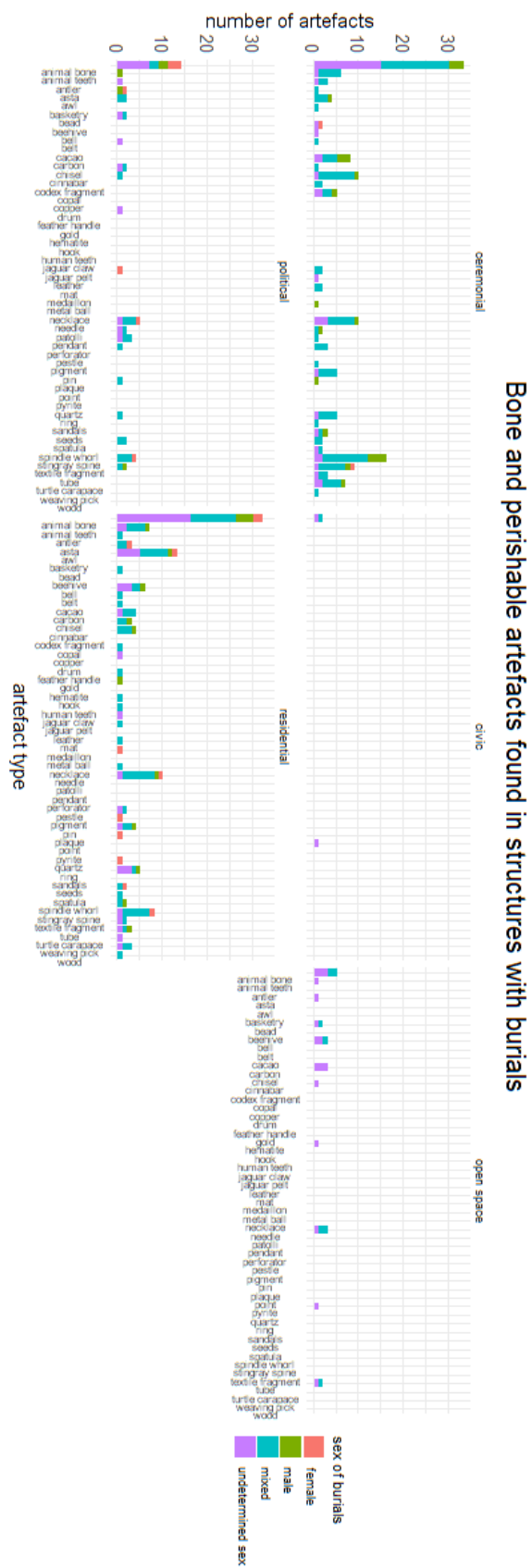


Figure 97: Histogram of bone and perishable artefacts found in structures with burials

The next step would be to realise a χ^2 test. The result of the χ^2 is 18.25, and the p-value is 0.019. The p-value is inferior to 0.05, so the data is not linked randomly. A CA can be performed. However, 100% of the data is represented in the CA, rendering it superficial. Therefore, the analysis of the histograms is sufficient.

The following analysis will deal with the jade and shell artefacts found in structures without and with burials. Various jade and shell artifacts were discovered in structures without burials (Figure 98). Mostly beads, earplugs, jade, masks, ornaments, pendants, plaques, shells, and spondylus were found. The highest amount of tools was present in residential structures, including one armband, 21 beads, two carved shells, two chips, five coral, two earplugs, three fragments, one headdress, two jade, one mask, three mosaics, two necklaces, ten ornaments, one pebble, two pectorals, three pendants, one plaque, 29 shells, nine spondylus, three tinkler, and two trumpets.

From the ceremonial structures, twelve beads, one carved shell, two earplugs, one figurine, one fragment, one headdress, seven jade, two masks, two mosaics, one necklace, two ornaments, one pearl, one pebble, two pendants, three plaques, two rings, ten shells, four spondylus, and two trumpets were recovered.

Open spaces contained one ax, nine beads, one chip, two corals, three earplugs, four jade, one mask, one necklace, one ornament, two pectorals, four pendants, two plaques, one ring, six shells, and two spondylus.

From political structures, one bead, one coral, two earplugs, one figurine, one instrument, one mask, one mosaic, two pendants, and four shells were discovered.

Five beads, one instrument, six jade, one ornament, three pearls, four pendants, two plaques, 13 shells, three spondylus, and one trumpet were present in civic structures.

To conclude, most jade and shell artefacts were found in residential and ceremonial structures. These artefacts were mainly used as ornaments. Their location might suggest that they were crafted in residential structures and worn in residential and ceremonial structures.

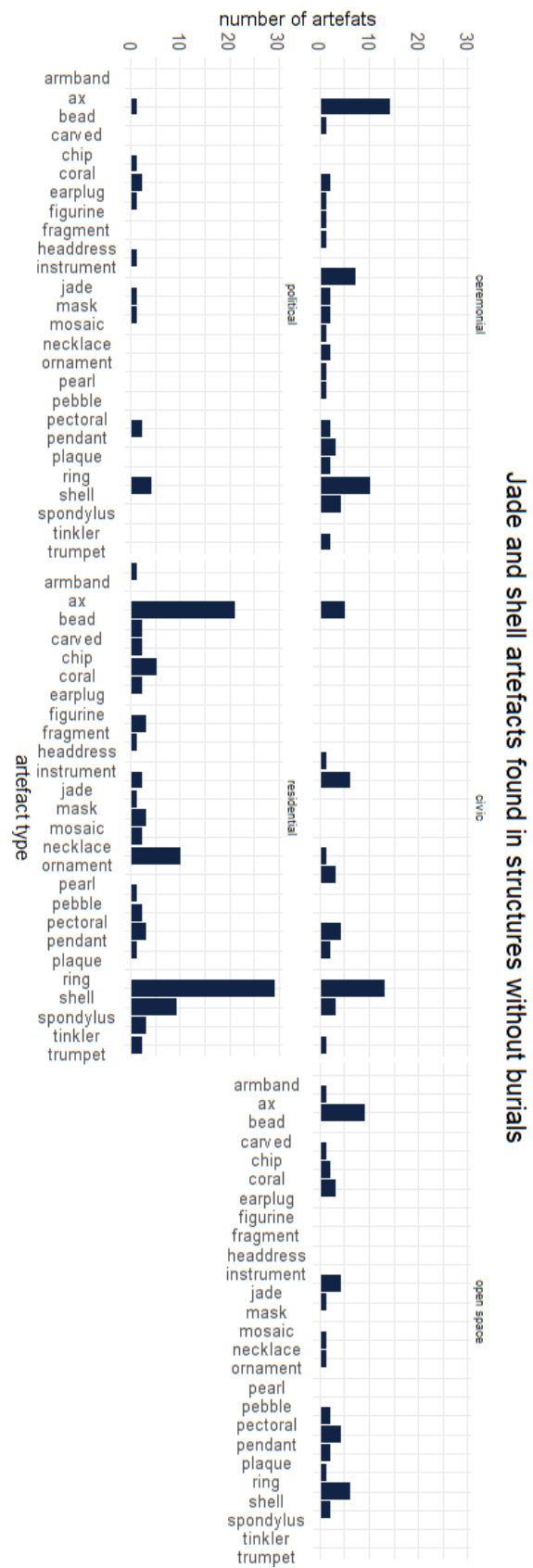


Figure 98: Histogram of jade and shell artefacts found in structures without burials

From the histogram (Figure 99), it can be deduced that most jade and shell artefacts found in structures with burials were composed of beads, earplugs, mosaics, necklaces, plaques, rings, shells, spondylus, pendants, pectorals, and jade. The highest amount and variety were located in residential structures including 62 beads (22 from adult burials of undetermined sex, 30 from mixed burials, seven from male burials, and three from female burials), three bezotes (one from an adult burial of undetermined sex, and two from mixed burials), two bracelets (respectively one from an adult burial of undetermined sex and mixed burial), two carved shells from mixed burials, one chip from a mixed burial, two corals (one from a mixed burial, and one from a female burial), one disk, headdress, and noseplug from adult burials of undetermined sex, 23 earplugs (eight from adult burials of undetermined sex, ten from mixed burials, three from male burials, and two from female burials), two figurines (one from an adult burial of undetermined sex, and one from a mixed burial), three fragments (respectively one from an adult burial of undetermined sex, male and female burial), ten jade (three from adult burials of undetermined sex, six from mixed burials, and one from male burial), one mask from a male burial, 13 mosaics (two from adult burials of undetermined sex, eight from mixed burials, two from male burials, and one from a female burial), four necklaces (one from an adult burial of undetermined sex, three from mixed burials, and one from male burial), twelve ornaments (four from adult burials of undetermined sex, five from mixed burials, two from male burials, and one from a female burial), two pearls (one from a mixed burial, and one from a female burial), five pectorals (four from adult burials of undetermined sex, and one from a mixed burial), ten pendants (one from an adult burial of undetermined sex, eight from mixed burials, and one from male burial), five plaques (four from adult burials of undetermined sex, and one from a mixed burial), five rings (one from an adult burial of undetermined sex, three from mixed burials, and one from a male burial), 28 shells (19 from adult burials of undetermined sex, four from mixed burials, three from male burials, and two from female burials), 13 spondylus (three from adult burials of undetermined sex, six from mixed burials, three from male burials, and one from a female burial), four tinklers (respectively two from adult burials of undetermined sex and mixed burials), and seven whistlets (four from adult burials of undetermined sex, and three from mixed burials).

From the ceremonial structures, five anklets from mixed burials, two armbands and headdresses from mixed burials, 60 beads (21 from adult burials of undetermined sex, 31 from mixed burials, five from male burials, and three from female burials), one belt, chip, diadem, kneeband, tinkler, and whistlet from mixed burials, two bezotes (one from a mixed burial, and one from male burial), seven bracelets (six from mixed burials, and one from male burials), two celts (respectively one from an adult burial of undetermined sex and mixed burial), six coral (one from an adult burial of undetermined sex, four from mixed burials, and one from male burial), seven disks (two from adult burials of undetermined sex, four from mixed burials, and one from male burial), 26 earplugs (six from adult burials of undetermined sex, 16 from mixed burials, two from male burials, and two from female burials), ten figurines (two from adult burials of undetermined sex, and eight from mixed burials), one head and two ornaments from adult burials of undetermined sex, 16 jade (four from adult burials of undetermined sex, eleven from mixed burials, and one from male burial), one marble from a female burial, twelve masks (one from an adult burial of undetermined sex, seven from mixed burials, two from male burials, and two from female burials), seven mosaics (three from adult burials of undetermined sex, and four from mixed burials), 23 necklaces (six from adult burials of undetermined sex, twelve from mixed burials, two from male burials, and three from female burials), two needles (one from an adult burial of undetermined sex, and one from a mixed burial), two noseplugs (one from a mixed burial and one from male burial), eleven pearls (two from adult burials of undetermined sex, seven from mixed burials, one from male burial, and one from a female burial), eight pectorals (one from an adult burial of undetermined sex, six from mixed burials, and one from male burial), 22 pendants (six from adult burials of undetermined sex, 13 from mixed burials, and three from male burials), 13 plaques (three from adult burials of undetermined sex, eight from mixed burials, one from male burial, and one from a female burial), seven rings (one from an adult burial of undetermined sex, three from mixed burials, two from male burials, and one from a female burial), 36 shells (eleven from adult burials of undetermined sex, 20 from mixed burials, four from male burials, and one from a female burial), and 19 spondylus (five from adult burials of undetermined sex, ten from mixed burials, two from male burials, and two from female burials), were discovered.

Open spaces contained six beads, one figurine, two jade, two necklaces, one pearl, one plaque, one ring, six shells, and one tinkler from adult burials of undetermined sex; three beads, one necklace, one noseplug, one ring, and two shells from mixed burials; and one shell, one bead, and one earplug from male burials.

From the political structures, one ax, headdress, mask, and spoon from mixed burials, 17 beads (four from adult burials of undetermined sex, eight from mixed burials, two from male burials, and three from female burials), two bracelets (one from an adult burial of undetermined sex, and one from a mixed burial), one coral from a male burial, two disks (one from an adult burial of undetermined sex, and one from a mixed burial), nine earplugs (two from adult burials of undetermined sex, five from mixed burials, and two from female burials), one jade and noseplug from adult burials of undetermined sex, seven necklaces (one from an adult burial of undetermined sex, and six from mixed burials), two ornaments (one from a mixed and male burial), two pearls (respectively one from an adult burial of undetermined sex and mixed burial), two pectorals, tinklers, and trumpets from mixed burials, four pendants (two from adult burials of undetermined sex, and two from mixed burials), eight plaques (two from adult burials of undetermined sex, and mixed burials), three rings from mixed burials, 14 shells (seven from adult burials of undetermined sex, three from mixed burials, one from male burial, and three from female burials), and four spondylus (one from an adult burial of undetermined sex, two from mixed burials, and one from male burial) were found.

One bead from a mixed burial, one bead, two pendants, one shell, and one spondylus from adult burials of undetermined sex were present in civic structures.

To conclude, most of the jade and shell artefacts were found in residential and ceremonial structures. The majority of these tools were part of ornaments. They might have been produced in residential structures and worn for ceremonies in ceremonial structures. Both genders could wear the same ornaments. No clear or significant difference could be noticed from the data.

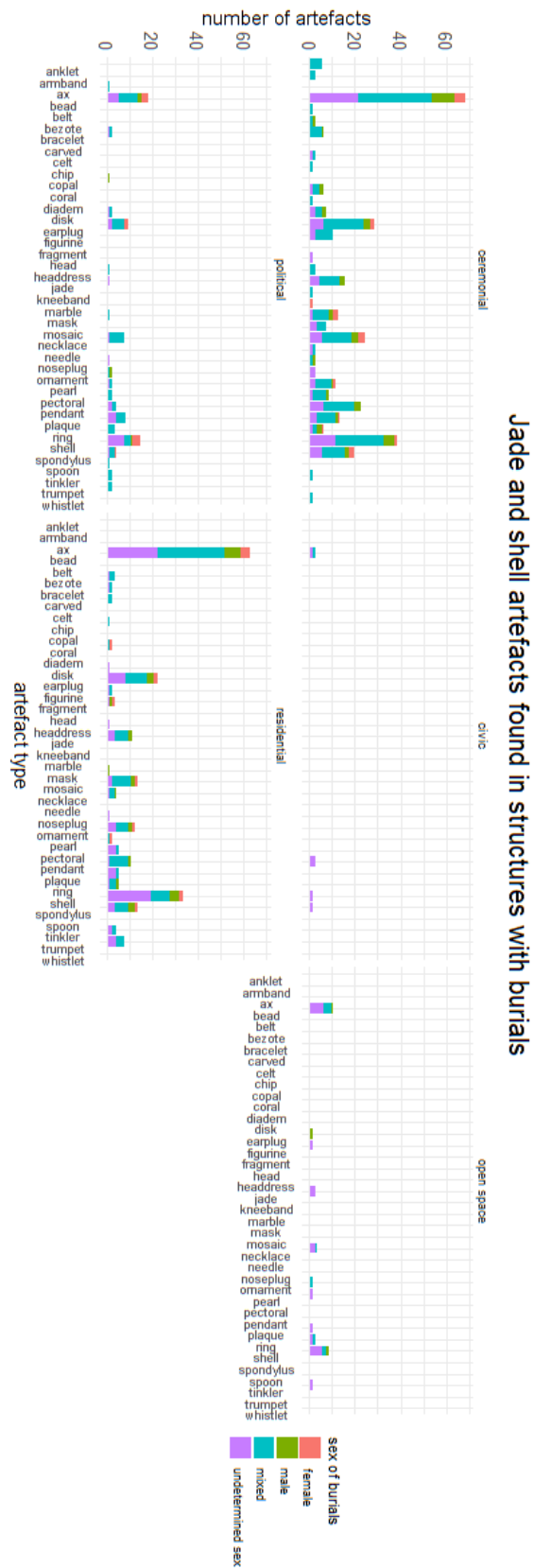


Figure 99: Histogram of jade and shell artefacts found in structures with burials

A χ^2 test can be done. The χ^2 is equal to 10.331, and the p-value is 0.24. Due to a p-value superior to 0.05, a CA can't be realised. The data is linked randomly.

The last step concerning the artefacts found in the visited sites is to compare the distribution of the materiality in function of the structure type, without and with burials. From the histogram (Figure 100), we can observe that most artefacts were found in residential structures. 50 bone, 200 ceramic, 175 lithic, 35 jade, 25 perishable, and 75 shell artefacts were recovered. The ceramic tools might be used for food preparation and consumption, lithics for workshops, jade as ornaments, and shells and bones as ornaments, tools, and food supply.

In ceremonial structures, 25 bone, 125 ceramic, 35 jade, 75 lithic, ten perishable, and 35 shell were discovered. Ceramics and lithics could probably serve for feasts and offerings to the gods. The shell and jade artefacts may be the ornaments.

In civic structures, 15 bone, 45 ceramic, 15 jade, 70 lithic, ten perishable, and 30 shell artefacts were found. Activities taking place in civic structures may be made of lithic materiality. Ceramic and shell artefacts could be used for communal feasts.

Ten bone, ten perishable, 50 lithic, 45 jade, 45 shell, and 35 ceramic tools were present in open spaces. Gatherings, celebrations, and markets could have taken place in open spaces. This could explain why no single artefact materiality was dominant.

In political structures, 15 shell, five perishable, five jade, ten bone, 40 ceramic, and 50 lithic artefacts were recovered. The higher number of lithic and ceramic tools suggests that meetings, tribute storage, and gatherings might have been practised in political structures.

To conclude, the majority of the artefact materiality found in the different structure types was made of lithic and ceramic. The materiality present in one structure might be linked to the kind of tools that were required in activities taking place in the various structures. The more the activities needed were made of lithics, the higher the number of lithic artefacts would appear.

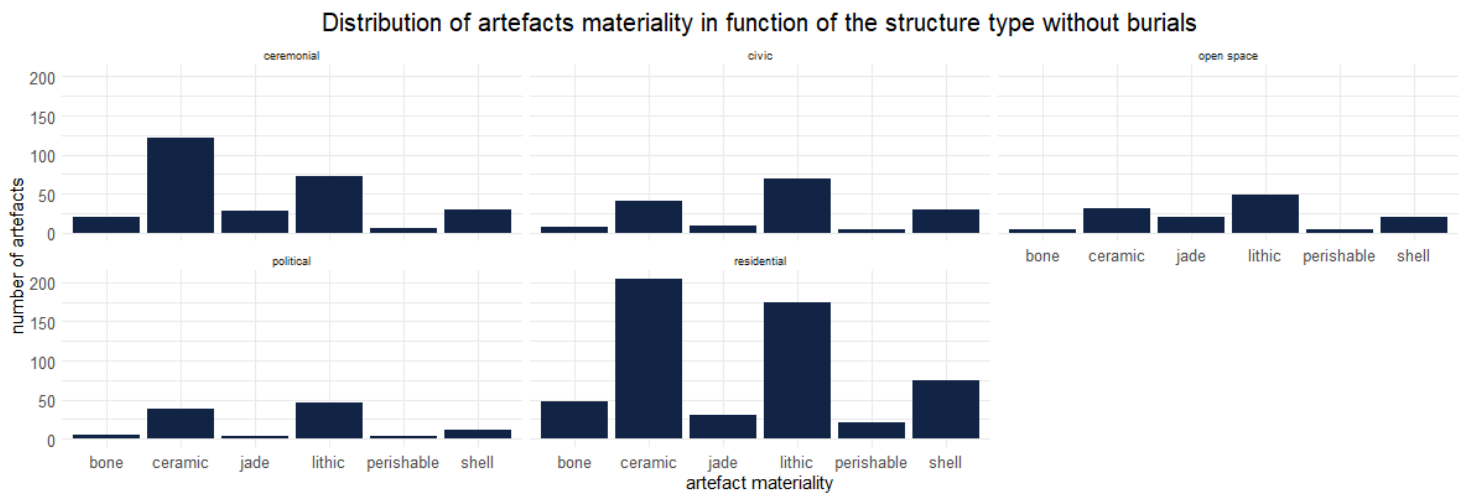


Figure 100: Histogram of distribution of artefact materiality in function of structures without burials

The next step would be to realise a χ^2 test. The result of the χ^2 is 171.88, and the p-value is $2.2e-16$. The p-value is less than 0.05, so it can be considered that the data is not random. A CA can be performed.

The CA (Figure 101) illustrates that four oppositions can be noticed. The ceremonial structures are opposed to civic structures and open spaces; political and residential structures are opposed to civic structures and open spaces, lithic and shell artefacts are opposed to perishable and jade artefacts, and finally, ceramic and bone artefacts are opposed to lithic, shell, perishable, and jade artefacts. This means that ceremonial structures represented one grouping comprising perishable and jade artefacts, political and residential structures a second grouping including bone and ceramic artefacts, and the civic structures and open spaces a third grouping having the presence of lithic and shell artefacts.

In conclusion, some artefact materials were associated more with one structure or the other. The materiality of the recovered artefacts might indicate the status of the people and the activities that might have taken place in these structures, and it is essential to look at preserved artefacts. Indeed, a vast array of perishable and unpreserved tools were probably lost over the centuries.

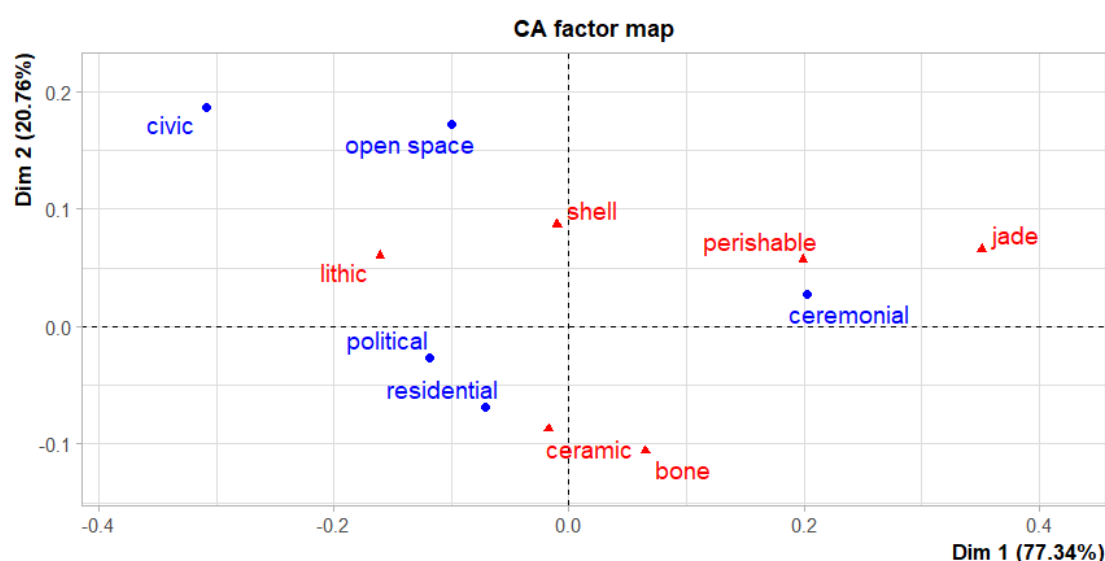


Figure 101: CA of distribution of artefact materiality in function of structures without burials

From the burials (Figure 102), it could be deduced which artefact materiality was mainly found in the different types of structures. Most of the diversity in artefact materiality comes from the ceremonial structures including 100 bone (25 from adult burials of undetermined sex, ten from male burials, and 75 from mixed burials), 275 ceramic (100 from adult burials of undetermined sex, 125 from mixed burials, ten from female burials, and 40 from male burials), 180 jade (35 from adult burials of undetermined sex, ten from female burials, 100 from mixed burials, and 35 from male burials), 225 lithic (75 from adult burials of undetermined sex, ten from female burials, 35 from male burials, and 105 from mixed burials), 55 perishable (ten from adult burials of undetermined sex, ten from male burials, five from female burials, and 30 from mixed burials), and 150 shell (40 from adult burials of undetermined sex, ten from male burials, five from female burials, and 95 from mixed burials) artefacts. Ceramic, jade, and shell tools may have been part of ornaments and containers of food supplies for the dead individuals for the afterlife.

From the residential structures, 100 bone (25 from adult burials of undetermined sex, five from male burials, five from female burials, and 65 from mixed burials), 340 ceramic (150 from adult burials of undetermined sex, 150 from mixed burials, 35 from male burials, and five from female burials), 100 jade (35 from adult burials

of undetermined sex, five from female burials, 15 from male burials, and 45 from mixed burials), 275 lithic (140 from adult burials of undetermined sex, ten from female burials, ten from male burials, and 115 from mixed burials), 35 perishable (20 from mixed burials, seven from adult burials of undetermined sex, seven from female burials, and one from male burial), and 135 shell (50 from adult burials of undetermined sex, 65 from mixed burials, ten from female burials, and ten from male burials) tools were found. Lithic tools may have been the artefacts needed by the individuals for their daily activities. The jade and shell artefacts might have been used as ornaments, while ceramics and perishable items were for the food supply for the afterlife.

A smaller number of burials were found in political and civic structures as well as open spaces. Five bone (from adult burials of undetermined sex), five shell (from adult burials of undetermined sex), ten ceramic (five from adult burials of undetermined sex, and five from mixed burials), and ten lithic (eight from mixed burials, and two from adult burials of undetermined sex) tools were present in civic structures. Ten bone (five from adult burials of undetermined sex, and five from mixed burials), 45 ceramic (eight from mixed burials, two from male burials, and 35 from adult burials of undetermined sex), five jade (one from mixed burial, and four from adult burials of undetermined sex), 50 lithic (40 from adult burials of undetermined sex, seven from mixed burials, and three from male burials), eight perishable (five from adult burials of undetermined sex, and three from mixed burials), and 25 shell (15 from adult burials of undetermined sex, three from male burials, and seven from mixed burials) artefacts were discovered in open spaces. In political structures, 40 bone (ten from adult burials of undetermined sex, ten from female burials, and 20 from mixed burials), 130 ceramic (50 from adult burials of undetermined sex, 50 from mixed burials, 15 from male burials, and 15 from female burials), 45 jade (30 from mixed burials, five from adult burials of undetermined sex, and five from female burials), 115 lithic (50 from adult burials of undetermined sex, 45 from mixed burials, five from male burials, and ten from female burials), five perishable (two from adult burials of undetermined sex, and three from mixed burials), and 50 shell (five from female burials, ten from adult burials of undetermined sex, and 35 from mixed burials) tools were recovered. Within political structures, the palaces were counted. They were the home of the royal elite.

They lived and were also sometimes buried there. This could be deduced by the number of burials and the amount of grave goods. Such a variety could not be seen in civic structures and open spaces (lack of burials, lack of burials with grave goods, etc.).

In conclusion, burials found in ceremonial and residential structures were majoritarian, and their grave goods assemblages were more furnished than the burials in other types of structures. Artefacts of jade and shell, probably ornaments, were found as well as ceramics and lithics, as necessary tools for the afterlife (for food supply and work).

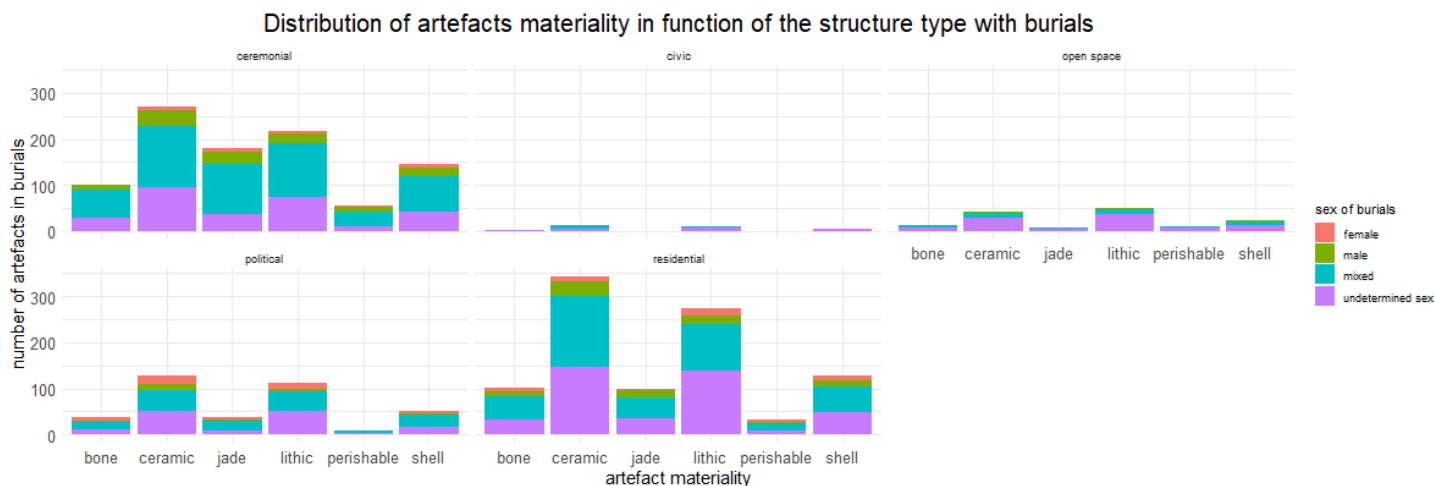


Figure 102: Histogram of distribution of artefact materiality in function of structures with burials

A χ^2 test can be done. The χ^2 is equal to 130.01, and the p-value is $2.2e-16$. This means that the data is not linked randomly, and a further analysis, such as a CA, can be performed.

The CA (Figure 103) indicates that three clusters can be seen. Male burials (cluster 1) are opposed to female burials (cluster 2), and mixed burials (cluster 3) are opposed to male and female burials. Shell and lithic artefacts (cluster 2) are opposed to jade and perishable artefacts (cluster 1), and shell, lithic, jade, and perishable artefacts are opposed to ceramic and bone artefacts (cluster 3). However, mixed burials were more furnished with varied artefact materiality than in burials of only male and female individuals. Lithic, bone, ceramic, jade, and shell artefacts were

more associated with mixed burials, while perishable tools were more linked to male burials.

To conclude, from the burials, there is no clear gendered division of artefact materiality from the grave goods assemblages due to the limited data related to the mixed burials. Both genders could enjoy similar grave goods assemblages. However, if more data were attributed to male and female burials, a clear opposition could appear, as already present in the CA.

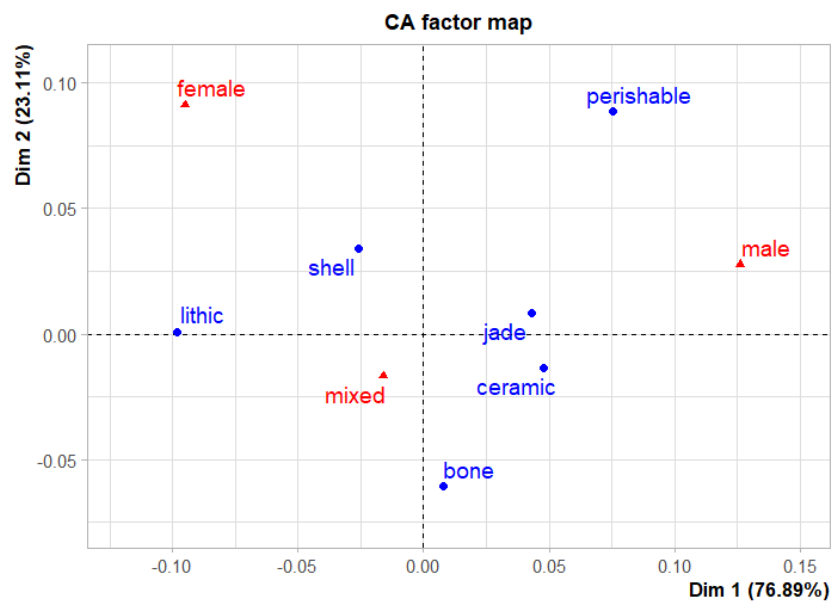


Figure 103: CA of distribution of artefact materiality in function of structures with burials

To conclude, we could analyse the fact that not every site type had the same artefacts and activities. Indeed, the primary centres were involved in meetings (patolli game), rituals (excentrics, miniature vessels, perforator, brazier, mirror, copper bell, tube, and carbon), ballgames (yoke), administration (stamp), and textile production (loom weight). In addition, some vessels for beauty products (perfume bottles), ornaments (mostly made of jade and shell), and funerary practices (jaguar pelt and claw, cinnabar, and mat) were recovered from them.

Secondary centres could have been involved in similar activities than the primary centres. Some artefacts were discovered in a lesser concentration in the

same type of building, such as rituals (stingray spine, music instrument, and incense burner), funerary practices (cinnabar, codex fragment, pin, and *Spondylus*), administration (pestle and pot), and vessels (dish, vase, box, and cylinder). Specifically, these secondary centres could produce figurines (molds), ornaments (jade and shell), and, for coastal sites, a fishing duty (net sinkers).

Small settlements were involved in only a few activities. Their inhabitants had only shell ornaments. Activities such as food preparation (carbon, mano, and metate), lithic workshop, and some vessels (jar, cup) were similar to those for the secondary centres. However, in the small settlements, they were majoritarian.

Despite these differentiations between the centre types, some similarities could be seen. Every site had the presence of ritual tools (figurine and whistle), textile production tools (spindle whorl and needle), some vessels (bowl and plate), and multifunctional lithics mainly for polishing or cutting activities.

The following graph illustrates which activities and artefacts could have been found in the various centre types of archaeological sites visited by the author.

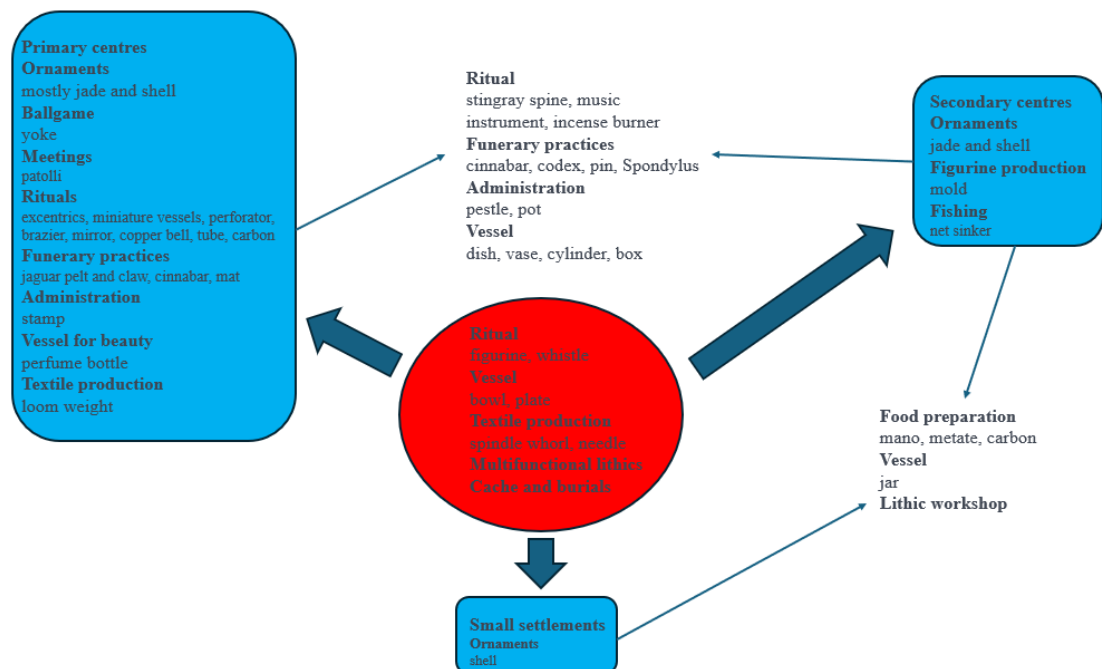


Figure 104: Graph showing the activities and artefacts present in different centres

5.7) Chapter summary

This section was about the artefacts. The creation of an artefact could have been seen as a social act in which different steps were needed, various people were involved, and different locations might have been necessary. Indeed, as we can see, tools can be left where they were used, stored, or lost. This could have taken place in open spaces, within structures, within rooms, as grave goods in burials, and as offerings in caches. Here, this investigation also looked at the iconography present on stelae, ceramics, lintels, and figurines for the ornaments specifically. From the primary and secondary centres and the small settlements, we could observe that some sites might have been involved in a specific task A, which could have been modified in site B. The artefacts were, therefore, exchanged.

In addition, the artefacts were made of a different materiality, which could identify the owner's social class. Some tools were used on a daily basis, and their activity could be analysed through their use and wear remains, or they could have been symbolic and were never used. The message from the artefacts depended on their portability, audience, location, and materiality. It can be deduced that stone monuments and sumptuous ceramics spread more important messages and narratives to the community than lithics or utilitarian vessels. From the recovery of artefacts in burials, some funerary practices could be investigated. For example, some carved tools could have had the name of their owner or ancestor and could have been seen as heirlooms.

A limited number of tools found were made of perishable material. Due to the poor preservation conditions, we can deduce that various artefacts and hints of activities were lost. However, in some exceptional circumstances, some were preserved. Rooms or structures devoid of artefacts could have been cleaned before their inhabitants left, or they could have been used as a sleeping area. The following table summarizes the most frequently found artefacts and their probable use. They will be categorised through their materiality.

Materiality	Artefacts	Activities or use
Lithics	blade, mano, metate, mortar, pestle, excentrics, point, polisher, hammerstone, scrapper, biface, ballgame implement, earplug, noseplug, bezote, mask, collar, pectoral, pendant, ring, armband, anklet, and belt	knife, weapon, polishing, carving, stone work, food preparation, divination, pigment preparation, jewellery, ballgame, and rituals
Ceramics	plate, bowl, cup, dish, incense burner, vase, jar, figurine, whistle, stamp, disk, and spindle whorl	food preparation and consumption, storage, ritual, dying of textile, administration work, textile production, music instrument, and transportation
Bone and perishable material	awl, pin, needle, tube, animal teeth and bone, pelt, claw, paper, headdress, earplug, noseplug, collar, pendant, ring, sandals, belt, huipil, sarong, batten, pick, perforator, skirt, loincloth, armor, and feather	ritual, textile production, polishing, perforation, jewellery, and funerary practices

Figure 105: Table of the most artefacts found and their probable activities or use

Section 3: Activities

The last section of this doctoral thesis deals with gendered activities. Here, the aim will be to investigate which activities were realised by which gender. Did some activities pertain exclusively to one specific gender, or were some mixed? The focus will lie on three main themes: textile production, activities related to nutrition, and civic-ceremonial activities. For this, various data types will be used. The information will come from the literature already published, osteology, iconography, epigraphy, funerary context, and ethnographical work realised by the author and by the first published material made by the Spaniards after the Conquest. The last medium needs to be studied with caution. Indeed, the Spaniards were writing about their point of view from a 16th century religious man. The themes of religion, conquest, warfare, calendar, cosmology, and nature are mainly present. Some chapters dealt with the activities (mostly what noble people were doing), and these will be taken into the investigation. Also, the observations the author made during her travel can be biased due to the globalisation and modernisation of the Maya communities.

6) Osteological evidence for female activity

This chapter will focus on some generalities about osteology. Indeed, through osteology, it can be possible to ascribe an activity to the dead individuals. We will first look at the activities with which the individuals were involved. Then, we will analyse the phenomenon of bone remodulation. Finally, the musculoskeletal stress markers will be of interest for this study to understand how the muscle attachment to the bone can inform us about the activities practiced.

6.1) Probable activities of people

In Mayan society, men and women had to practice different and specific duties that depended on their social status. Men were involved in craft and agricultural production and military activities (Inomata et al. 2018: 89). The women probably

needed to prepare food, textile production, domesticate animals, educate children, take care of gardens, carry water, recollect firewood, wash the clothes, prepare rituals, and for noble women they had the duty to rule or do administrative activities (Gonzalez Cruz 2011: 235; Inomata et al. 2018: 89; King 2015: 261). Instead of doing all the hard work by themselves, elite women could delegate it to other lower-status women (Ashmore et al. 2016: 16). For example, elite women burials were found in the North Group of Copan. The bones of these women lacked marks for repetitive activities such as the kneeling position, which deformed the lower limb joints. This means that they might have been involved in other practices, such as weaving on a loom (ibid.: 14). The elite men were not involved with farming duties. Instead, they were having ruling and administrative activities. The other social classes had to produce some surplus to exchange it or as a tribute to give it to the elite for their own needs (Masson et al. 2002: 226f.).

In addition, some activities could be attributed to one single and the same person. For example, the presence of spindle whorls near utilitarian ceramics supposes that the person involved in both activities might have been the same (Willey 1975-1990: 238). The figurines were probably produced by women. Indeed, the figurines could have been used as toys for the children under the supervision of women. They could also be used for domestic rituals or as musical instruments. Their association with utilitarian ceramics and spindle whorls might suggest that women owned these objects (Inomata 2014: 15). Moreover, it can be supposed that both genders could have practised some activities, such as textile production, rituals, beekeeping, and making offerings (Awe et al. 2008: 282). More details about a few activities and their gender attribution will follow in the next chapters of this section.

6.2) Bone remodulation

The geometry of the bone adapts to the kind of activity a person is practising in a repetitive mode. Even if age, nutrition, and diseases could also modify the bone geometry, the activity had more impact (Maggiano et al. 2007: 9). Repetitive tasks and stress issues could provoke some disorders in the upper extremities if the

activity was using mainly these body parts (Bonde et al. 2005; Bousquié et al. 2022: 214). For example, the long bones' extremities, called diaphysis, could be a suitable medium for analysing the activity of the dead person due to their adaptation and deformation for a better result in daily activity (Maggiano et al. 2007: 2).

The lower limb can be investigated for the activities that are required to transport objects. In contrast, the upper limb was more determinant for the differentiation of activities (Wiedenmeyer 2019: 7). The upper limb shows more adaptation and modification than the lower limb (Weiss 2015: 284; Bousquié et al. 2022: 215). For the upper limb of the women, we could see that the diaphysis was used symmetrically. This means that both arms were involved in the same activity. For the men, the upper limb was asymmetrical. This means that they were involved in activities that required more one arm than both (Maggiano et al. 2007: 6). For example, the men used more the right arm for various activities. Women, on the contrary, needed both arms with the same strength to prepare food (ibid.: 10). At Cuello, in a burial, a male skeleton was found. His left distal thumb joint was abnormal. This could be due to a left-handed activity of pressure-flanking of chert or obsidian, for example (Whittington et al. 1997: 39).

If a person was in a repetitive position for their activities, it could also modify some facets of their bones. For example, for the weaving activity, women were in a kneeling position (Figure 106). This position puts the toes in a hyper-dorsiflexion. Being in such a position repetitively and on a daily basis could change the shape of the toe bones, and they could adapt to this position. The extremities of the phalanges and metatarsals will remodelate. "The metatarsals change on the superior distal surface" (flat with sharply defined proximal borders), and the "phalange changes consist of a bony protuberance on the superior surface, extending distally from the proximal articular surface" (cited by Baker et al. 2010: 1). Most women and none of the studied men had this kneeling remodulation

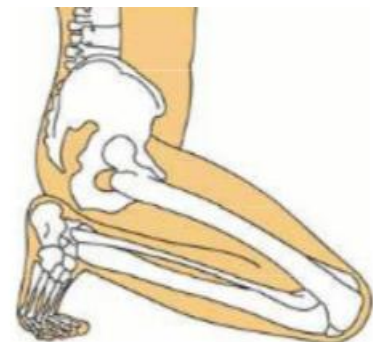


Figure 106: Toes in hyper-dorsiflexion position (Baker et al. 2010: 1).

of the toe's bones. Also, elderly women had the presence of larger adaptative surfaces than younger ones. This could be due to the amount of time spent in such a posture. Males not having such a toe deformation, we can deduce that they were not as involved in textile production as the women (ibid.: 1). When this bone remodulation appeared, it was symmetrical and present on both legs (Ubelaker 1979: 679f.). In Calakmul, the burial 2-4-12 contained an adult female individual. She had a toe bone remodelling, probably due to her repetitive kneeling position (Archives UAC).

6.3) Musculoskeletal stress markers

The musculoskeletal stress marker, in short MSM, can give information about the activities the person was involved in. Indeed, this MSM is a muscle attachment that can be more or less visible depending on the muscle use (Figure 107). Through time, it can also remodulate (Cashmore et al. 2011: 1; Weiss et al. 2012: 70). Two types of MSM exist: fibrocartilaginous (located on long bones, vertebrae, carpals, and tarsals) and fibrous (located on long bone diaphysis) (Weiss 2015: 281). Fibrocartilaginous MSM had less variation in the bone remodulation than the fibrous MSM (ibid.: 284). Fibrous MSM depends on age and body morphology. It is therefore recommended to analyse the fibrocartilaginous MSM to understand which activity the person was involved in (Weiss 2015: 284f.; Wiedenmeyer 2019: 4).

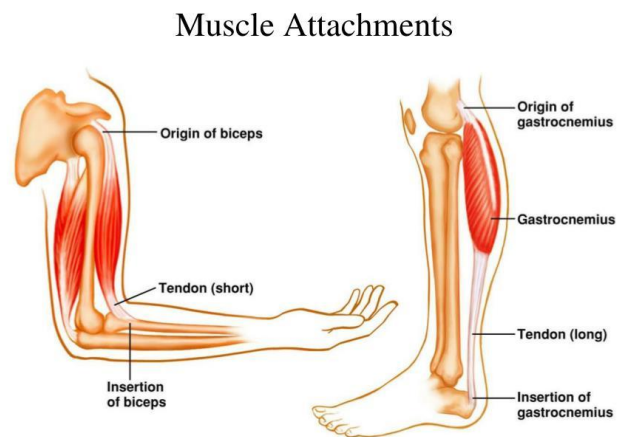


Figure 107: Schema of muscle attachment ([muscle-attachments-1.jpg \(1024×768\) \(slideserve.com\)](#))

The MSM has some limitations imposed by age, body mass, sexual dimorphism, ancestry, and muscle morphology (Cashmore et al. 2011: 10; Bousqu   et al. 2022:

220). The bone shape can vary from one person to another. It is important to analyse the effect of the MSM on each individual to understand how the activity could have shaped the body of the person under study (Karakostis et al. 2021: 187). The more a muscle was involved in an activity, the bigger it became, and the more MSM it will have (Karakostis et al. 2019: 2f.). The MSM amount is higher for males than for females (Weiss et al. 2010: 2). For example, in Oxkintok the Tomb 4 in Structure MA-1 contained a male adult whose MSM insertion were well pronounced (Misión arqueología de España en México Proyecto Oxkintok 1991: 51). However, it could happen that female individuals had higher amount of MSM for one body part linked to the activity they practiced (Weiss et al. 2012: 71). Furthermore, the hand phalanges depended on the sexual dimorphism. Men had larger phalanges than women due to the androgen hormones that stimulated their growth. The left hand presented more sexual dimorphism changes and differences than the right hand (Karakostis et al. 2013: 733f.). Hormones also played a role once the person was retired. Retired men will show less MSM because their activity level will decrease. However, for women, this is not true. Indeed, the hormones secreted in the body during menopause contribute to the continuous formation of MSM (Takigawa 2014: 10). The MSM method is quite reliable for identifying muscle use and deducing the activities linked to them. However, it can't be used with modern humans because they can be involved in various activities that require different body parts. They have more leisure time that is not related to their work than in the past (Wiedenmeyer 2019: 37).

One activity could require the use of different muscles, or two activities could require the same muscle. For example, the deltoideus was used by both genders. For males, it was activated for throwing and hunting activities. In contrast, for females, it was used for grinding activities (Weiss et al. 2010: 8). Additionally, the scapula and pectoralis minor will also be activated by women while grinding activities (Weiss et al. 2012: 72f.). The upper limb has more possibilities to indicate MSM pattern of asymmetry. For example, the right arm could be used more than the left, or the humerus could be used more than the radius (Cashmore et al. 2011: 2). Moreover, the start of use for tools presented the first evidence for the precision grasping in the hands (Karakostis et al. 2021: 1321). Women were more involved

in tasks requiring manual precision. Elite women were even more used to precision grasping activities than non-elite ones. This could be seen through the hand and fingers MSM or facet remodulation (Karakostis et al. 2020: 36f.; Karakostis et al. 2016: 118). Indeed, precision work mainly involves the thumb's index and exterior, while force work uses the little finger, the thumb's point, and the little finger part near the wrist (Karakostis et al. 2021: 190; Karakostis et al. 2018: 2).

6.4) Chapter summary

This chapter focused on osteology. The skeletal remains of individuals could give hints about the activities they were associated with. Two methods were analysed. On the one hand, we had the bone remodulation. The bone will adapt to the repetitive activity and reshape if needed. Mostly, the extremities of the bones (diaphysis or facets) will remodulate. However, this process also depends on age, nutrition, and diseases. The lower limb can indicate if a person is involved in carrying out activities. In addition, if a person is constantly in a kneeling position for their activity, the facets of the toes can shape differently. This process was mostly observed by women. The upper limb was more precise in differentiating the activities. The upper limb could be used in a symmetrical manner. This means that both arms were used with the same strength. The majority of women presented a symmetry. Men presented a more asymmetrical scheme. This means that they practised activities that required more strength from one arm.

On the other hand, the musculoskeletal stress marker could also be investigated to understand the individual's activities. The MSM is a muscle attachment that fixes on the bone. The more the muscle is used, the more the MSM will be formed. Two types of MSM can be observed: fibrocartilaginous (attached to bones) or fibrous (attached to bone extremities). The first type is more activity-dependent than the second one. Moreover, one activity could use more than one muscle and vice versa. If a person wants to analyse the type of activity an individual was involved in, it could be done through the hands. Precision grasping and force work used different

fingers for their realisation. This method also has some limitations. It depends on age, body mass, ancestry, sexual dimorphism, and muscle morphology.

Both methods are reliable for identifying which person was involved in which activity. However, this field of study is new. Only too few investigations were done. Also, too few skeletal remains have already been analysed in this way.

The following graph will visually summarise why osteology should be used to analyse activities realised by different genders.

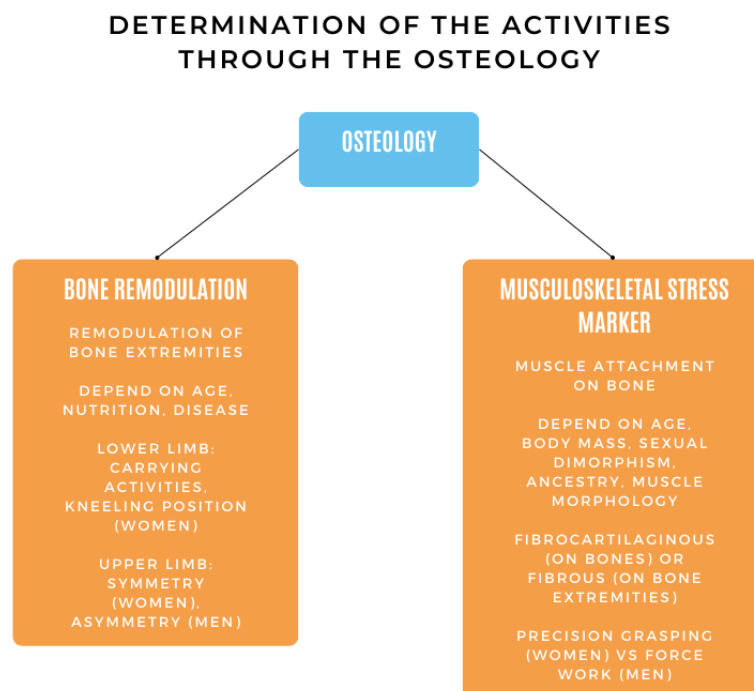


Figure 108: Graph showing the use of osteology for the activity determination

7) Textile production

This chapter will focus on the textile production. Here, the aim will be to identify if this activity was especially for women or if it was a mixed duty realised by both genders. To make some hypotheses, various data were recollected, such as information in the literature, iconography, epigraphy, ethnography, and funerary context from the visited sites.

7.1) As a female identity only?

When we think about weaving and spinning activities, we directly associate them with the female gender. Indeed, the textile production was part of women's identity. They were involved in it, and it is inseparable from womanhood (Perez Lopez 2013: 52; Chase et al. 2008: 127; McCafferty et al. 1994: 145; Moreno n.d.: 3; Chinchilla Mazariegos 2017: 90; Tremain 2017: 93; Ardren et al. 2010: 274; Rubenstein Dankenbring 2015: 54; Rodriguez-Shadow 2006: 20; Dacus 2005: 18). *Ix jalam* was a title that qualified the women as a weaver (26th EMC). Even the prominent female deities were linked with textile production activities (Nichols 2012: 633). For example, in Yaxchilan Lintels 41 and 5, the women depicted had the title of the weaver (UNAM Segunda jornada Mujeres Maya 2024).

Furthermore, the weaving implements were considered living beings named after body parts (Scott et al. 2020: 430). Some authors even saw a link between textile implements and male weapons, as if the textile production practiced by women was the counterpart of the warfare realised by men (Nichols 2012: 633). The presence of spindle whorls or other weaving implements in burials could attest that the person was involved in textile production activities. These implements were mostly associated with female skeletal remains (Chase et al. 2008: 131f.). For example, the Margarita Tomb of Copan was a female interment. Through the attire and grave goods, it could be deduced that she was impersonating the Ix Chel Goddess of weaving (Moreno n.d.: 5).

Clothes were one of the most exchanged goods in trade or tribute produced by women. This could be seen as an economic income for the women that was reserved for them, and this condition was accepted by men (Ardren et al. 2010: 275). The creation of textiles could be seen as the creation of a story: “sus tejidos son sus libros, y cada uno escribe el suyo” (cited by Jongh Osborne) (Montoya 2011: n.d.). Women were weaving, and they wrote narratives. Indeed, each motive had a special signification and could transmit messages to the people wearing the dress or the surrounding people (Otzoy 1992: 108).

As we could see in the previous chapter about osteology, the kneeling position used mainly for a weaving duty affected the bone shape of the legs and toes. The extremities of the bones had a different shape than those of people who were not repetitively in a kneeling position. From some studies conducted on bone remodulation, we could deduce that only female individuals had these bone adaptations. Women were then involved in the textile production.

Until now, it can be said that textile production has been exclusively done by women. However, with its intensification, some individuals, such as men, elderly men, disabled men, and infants, were involved in textile production. These people were not expected to be part of it (Nichols 2012: 665; Rodriguez-Shadow 2007: 36f.). This means that not all steps of textile production were only a female domain (Chase et al. 2008: 129; Tremain 2017: 101; Whitlock 1976: 43f.). It could have been realised by the members living in one household and not depending on the gender (Halperin 2008: 112). Moreover, the production of textiles and leather were two activities that could have been linked to each other. The people involved in these activities could have pertained to both genders (Emery et al. 2007: 77).

Some textile production implements were found as grave goods by men and children (Halperin 2008: 112). For example, Tomb 7 of Monte Alban recovered the burials of 9 individuals. Spinning and weaving tools were found. Males older than 55 were also associated with these artefacts (McCafferty et al. 1994: 143f.). It was

the first significant discovery of males involved in textile production. The sex determination of the individuals was complicated due to poor preservation. It could have been a male or a robust woman (ibid.: 150f.). Therefore, it was believed that this tomb could have been an exception. However, after various excavations, this doubt was vanishing. Indeed, more examples were recovered. At Barton Ramie, the grave goods of a male individual contained a needle (Chase et al. 2008: 129). In Tzimin Kax, a spindle whorl was found in a male burial, as was also the case in the Southern Petén (ibid.: 129 and 136). In Caracol, a bone awl was discovered in a male burial (ibid.: 131). We can then affirm that textile production might have been mostly done by women, but that some steps were realised by men and children.

7.2) Textile production from the data

After this controversial view of gender determination in textile production activity, we will analyse the data recollected by the author. Here, the iconography, funerary context, and ethnography will be investigated. The corpus for the iconography and funerary context can be found in Annex 4, and for the ethnography in Annex 5.

7.2.1) From the iconography

In the iconography, the theme of weaving is discrete. It was not as present as other subjects. Some special themes from the textile production were present in different media. In the stone monuments such as stelae and lintels, no scene depicted a weaving person. However, what could be seen was the end product of the textile production. The rulers were represented in sumptuous attire. For example, to cite only a few of them, some royal elites were depicted in luxurious attire, such as in Palenque, the Oval Palace Tablet, in Yaxchilan Structure 21 Lintel 15, or Calakmul Stela I and II (Figure 109). Both genders were involved.

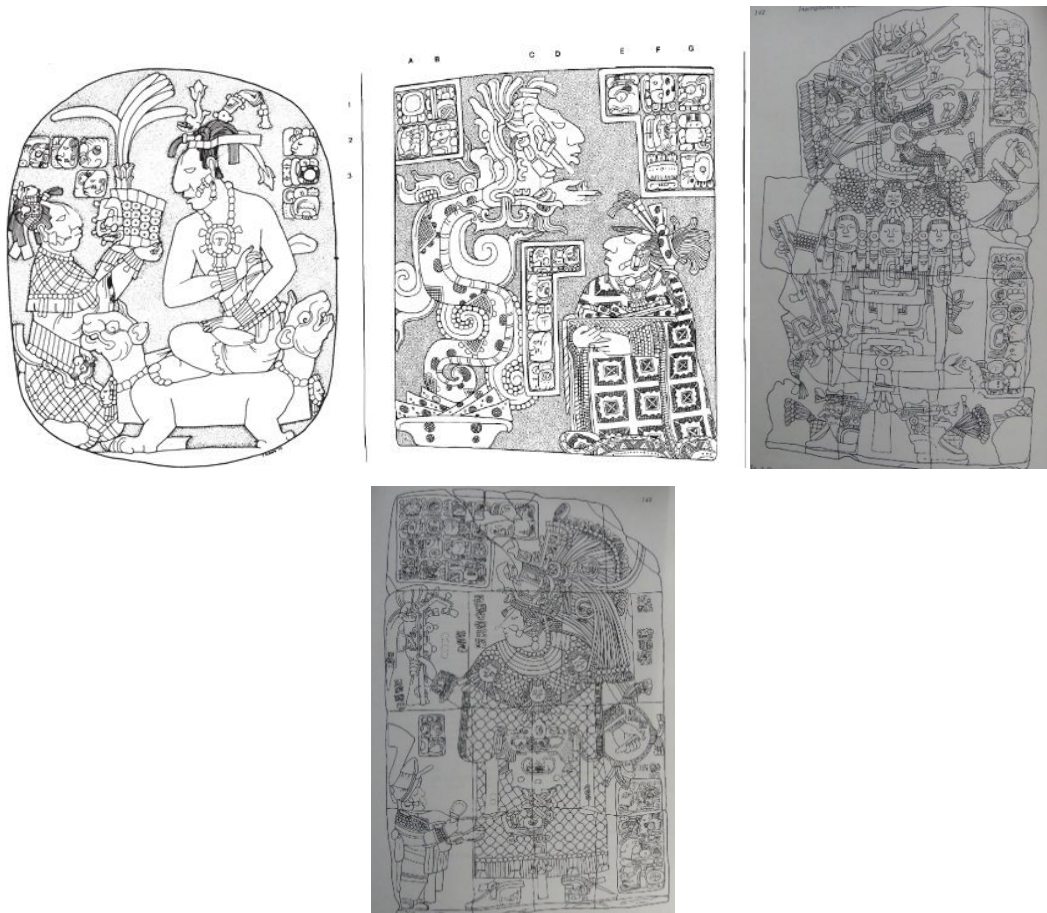


Figure 109: Stone monuments depicting royal elite with sumptuous attire (left to right: Palenque Oval Palace Tablet, Yaxchilan Lintel 15, Calakmul Stela I and II)

In the ceramic rollouts, no scene represents a weaving or spinning activity. Instead, it depicted some tribute narratives. In these narratives, we can see that some people (of both genders) bring folded cloth to the ruler. This cloth is also the end product of the textile production. For example, the ceramic rollouts from Kerr K2914, K4030, and K5043 represented such a tribute scene (Figure 110).



Figure 110: Ceramic rollouts showing a tribute scene (from up to bottom K2914, K4030, and K5043)

The figurines represented some activities, including textile production. Various women were shown sitting on a weaving loom and being involved in textile production. For example, from the figurines of Jaina 2019, 2833, 6000, and 6766 were figurines of women weaving on a loom (Figure 111). Only women were represented and involved in textile production.



Figure 111: Figurines representing women weaving on a loom
(from left to right 2019, 2833, 6000, 6766)

7.2.2) From the burials and grave goods

From the data recollected in the sites visited by the author, the funerary context can give hints about gendered practices. For textile production, the idea was to look at the grave goods, which imply some textile production implements such as spindle whorl, needles, pins, weaving picks, and awl. Then, it was important to have a look at the gender of the interned individual whose grave goods could belong to him. The sex determination of the skeletal remains was scarce due to poor preservation or to an imprecise identification (lack of precise gender characteristics on the bone or data not available, and only notified as an adult). What can be deduced from this study is that most of the textile implements from the sites came from female grave goods. However, spindle whorls were found in male tombs in Calakmul, Dzibanche, Lamanai, Yaxha, and Yaxchilan. In Bonampak, the spindle whorl was associated with a male and infant burial. Moreover, some textile production implements could have other purposes. For example, the needle or pin was not exclusively used for textile production. It could have been used for different duties, such as keeping the corpse in a bundle or tying the hair. The fact that many male burials were associated with spindle whorls might mean that this tool only served for textile elaboration. Until now, no other duty could be performed using a spindle whorl. From the funerary context, we can say that women mainly realised textile production. However, it was not exclusively done by them. Men and children could probably have been involved in various textile production steps and processes.

7.2.3) *From the ethnography*

From ethnography, what can be seen for textile production is the continuity of weaving traditions and how the end products are still valuable goods nowadays. For this, the author will share her experience weaving with a hip fixation and the observations made during her stay in Guatemala at San Martin Jilotepeque. In this Maya community, some traditions have lasted till today. What can be seen is that the women were responsible for the weaving. The girls started this activity at the age of six and learned it from their mothers and grandmothers. Most of the women have four different huipiles: one for daily activities, one for ceremonies, one for special occasions, and one for funerals. Each region and community had different colours and motives. This enables us to understand who belongs to which community and which Maya language this person might speak. The process of weaving and washing the clothes was a collective activity. Indeed, the women from the household or women from various households come together and realise their duties while talking together and taking care of the children. In addition, in bilingual schools, some Kaqchikel songs were taught. During the author's stay in San Martin Jilotepeque, a bilingual school was visited. There, a song about women weavers was played. Until today, the weaving activity is a female duty and part of their identity.

The author also had the opportunity to participate in a weaving workshop at the 28th European Maya Conference at the University of Bonn (Figure 112). It started with the preparation of the wool ball for the base of the weaving. The wool was already spun into a thread. It needed then to be placed on three picks to prepare the base of the weaving loom. The three picks will help to fix the base. One pick will be fixed on a standing object, such as columns, trees, or anything similar, and the third pick will be fixed on the hips of the weaver through a belt. The weaver will need to sit at a certain distance to have a stretched base. One additional pick can be used as a security to keep the base still. If the person doesn't take it and one pick falls down, everything will be lost, and the weaver will need to start the whole process anew. One larger pick will be used to squeeze the new line of thread that was done with the other. And finally, one stick with the thread to use will be needed.

This pick will pass from one end to the other to create the textile. The piece of textile can't be wide due to the hip fixation. The wider it is, the harder it will be to make. Before starting to weave, it is important to have all the implements ready and/or near the weaver. Once the belt is put on, the person can't move because the picks could fall away.

While weaving, it is essential always to keep a kind of cross called a heart. Weaving is like creating an animate being. Once the heart is lost, the weaving is over. This process seems complicated, but it is easier than it sounds. Different techniques exist for elaborating motives: one motif that can be seen only from one side or one motif that can be seen from both sides. The author chose to focus on the motif that can be seen on both sides. For this, another wool ball and a needle will be needed. Once the person knows which motive she wants to do and where, she inserts the new thread between the base's thread. Then, to realise the motive, one has to count the threads from the base and pass the new thread from the bottom up from one side to the other. To help count, the needle could be useful. This process requires a high concentration. For the author, this workshop gave her insight into how the traditional weaving process could have taken place. The realisation of the weaving and the specific position was tiring, and the back, neck, and shoulders were under pressure.



Figure 112: Weaving workshop EMC 2023 in Bonn showing the weaving process made by the author

From the Spaniards and their writings, it is possible to find some chapters about the textile production activity. Here, not only will the Mayan civilisation be taken into focus, but also the ethnography of the Aztecs. The author made this choice to have more sources, and it is believed that both civilisations had a similar gendered division of activities. Sahagun is an example of Aztec analogies.

Diego de Landa wrote in *Relación de las cosas de Yucatán* that women were weaving and spinning. They could practise their duties accompanied by other women. They were helping each other (Landa 1959: 66). Bartolomé de las Casas, another Spanish friar, wrote that women were involved in weaving activities (las Casas 1958: 149). For the other tasks in textile production, he was vaguer and just enumerated the various steps without precision about the gender that was practising it. For example, he affirmed that officials were involved in different tasks such as leatherwork, feather craft, and weaving (ibid.: 204f.). Francisco Hernandez de Cordoba witnessed that the cotton was dyed in various colours, but no information was given about the specific gender required to realise the duty (De Cordoba 1942: 34).

Various codices, such as the Madrid Codex and the Florentine Codex by Sahagun, evoke that the women were involved in textile production (Sahagun Book 8 1577: 16r, 31r, and 31v; Taladoire 2012: 105 and 126) (Figure 113). In Book 10, Sahagun gives more details about the textile production activities. For example, women were weaving, but the tailor, spinner, and dyer could have been duties that were realised by both genders (Sahagun Book 10 1577: 22v, 23v, 36v, 37r, and 56r). In addition, both codices are exceptional works because they combine text and illustration. The representation of weavers was exclusively of female gender (Annex 5.1.1 and Annex 5.1.2). The feather craft was also a widespread duty that was present in the codex and could be done in parallel with textile production (Annex 5.1.3). This task was mostly a male duty, as it is depicted in the codex (Figure 113).



Figure 113: Example from the Madrid Codex of a weaver (Taladoire 2012: 105) and feather craft from the Florentine Codex (Book 9 64v) [Digital Florentine Codex \(getty.edu\)](https://www.getty.edu/)

From the ethnographies recovered from the Contact period, it can be seen that the textile production activity was ambiguous and that both genders were involved to varying degrees in different tasks. What can be assumed is that the women were involved with the weaving duty and that both genders did the other tasks.

7.3) Chapter summary

In this chapter, we analysed the fact that textile production was controversial regarding the determination of the gender involved with this activity. Textile

production was perceived as part of the female identity. The title *ix jalam* was used to qualify the female as a weaver. The weaving goddess Ix Chel was also a woman. The creation of a cloth could be interpreted as the creation of a narrative. The motives present on it and its colours were significant in some communities and could transmit messages about the weaver and the person wearing it. Textiles were one of the most traded goods. Moreover, from the skeletal remains, it can be deduced that the kneeling position was mainly used for weaving activities. This position deformed and reshaped the extremities of the long bones and toes. The remodulation was mainly seen on the female skeleton.

However, through the intensification of textile production, men and children were also involved in some production steps. This activity could have involved all the household members, regardless of their gender. Textile production implements such as spindle whorls were generally found within female burials. However, some of these implements could have been discovered with male and child burials as grave goods. Some tools of weaving implements could have been used for different purposes, and not especially for weaving, and were found with men in burials. In the iconography, the weaving narrative is discrete. Indeed, the stone monuments depicted the ruling elite with sumptuous attire, and the ceramics represented the tribute scenes in which textiles were exchanged. It is only with the figurines that women were seen weaving on a weaving loom. In the ethnography, we can see that almost exclusively women were responsible for textile production. For example, in the weaving workshop in which the author took part, the participants were mainly women, and only two or three were men. The records of the Spanish friars are ambiguous. Indeed, they affirmed that the weaving was reserved for the women. However, other steps and tasks required within textile production could be done by both genders.

In the following, the author recreated hypothetically the *chaîne opératoire* for textile production. It deals with the various steps for textile production that could have been analysed in this chapter. An attempt was also made to attribute a gender to the different steps. The children were not considered because their gender might not have been fully developed. Only adult individuals were the focus of this study.

Textile production chaîne opératoire: example of cotton cloth

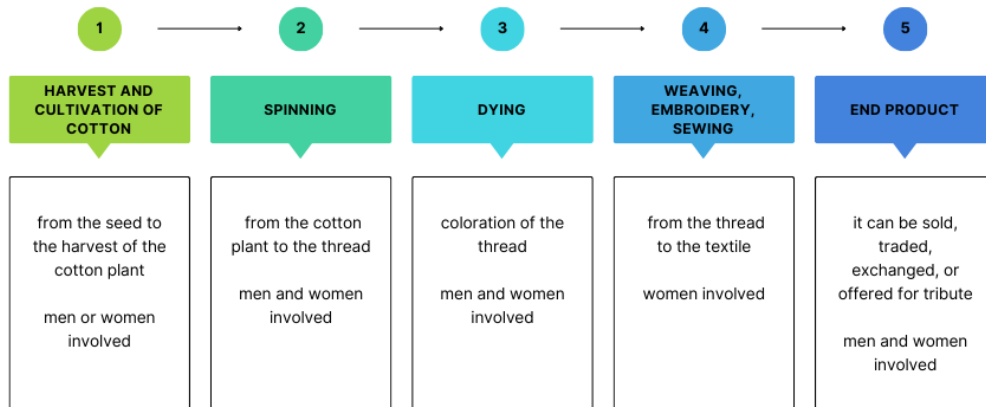


Figure 114: Hypothetical textile production chaîne opératoire

8) Activities related to nutrition

This chapter will focus on the activities related to nutrition. The aim will be to understand which gender is responsible for specific nutrition-related tasks. First, the preparation and consumption of food will be analysed. Here, it will be interesting to see who was responsible for what kind of activities in the elaboration of food. Then, agriculture will be essential. Indeed, most of the population was involved in this activity. The milpa, the orchards, and the different methods used to improve crop growth will be the focus. The marketplaces will be under study. We want to understand how the goods and food were exchanged and sold, and who was involved in the duties of the seller and the transport. The diet will be investigated in this chapter. The focus will be to analyse whether the gender of a person could have an impact on the diet and how it can be studied. Finally, we will look at nutrition-related activities from the data, such as the iconography, the burials and grave goods, and the ethnography.

8.1) Preparation and consumption of food

The preparation and consumption of food were important daily activities. It was so valuable for the Mayans that it gave women an identity. Indeed, women were mostly involved in the preparation of food and drinks (Rodriguez-Shadow 2007: 157; Rodriguez-Shadow 2006: 20; Dacus 2005: 18; Whitlock 1976: 35). The preparation of the food could have taken place on the patio or a kitchen structure. Some centralised kitchens were used to prepare food for the whole household or residential complex (Manzanilla 2009: 51; Chase et al. 2017: 210). Women could help each other.

The preparation of food did not consist only of the cooking duty. Indeed, different tasks are required for the well-elaboration of the food.

- (1) The animals were domesticated near the houses. Women mainly cared for them (Sharer et al. 2006: 639). The deer was an animal that was domesticated not only for its food supply but also for its potential and high value for elaborating

bone tools for daily activities (Alonso Olvera 2013: 196). Moreover, dogs were also domesticated by the Maya. Their use was for hunting other animals and as a safety guard for the owner and his family (ibid.: 199).

- (2) Water might not have been available in every house. People needed to transport water from the cenote, chultun, aguada, or river to their houses. These water reservoirs were located and built around and inside the cities (Chase et al. 2017: 211). This task was mainly attributed to women (Scott et al. 2020: 551; King 2015: 261; de Pierrebours 1999: 60).
- (3) Salt was a principal product for the conservation of food. Women were the ones who went to salt mines and brought them home (Frühsorge et al. 2009: 158). Two types of salt existed. The white salt was mainly used for food preparation, and the black salt was used for medical and ceremonial purposes (ibid.: 159). Salt was one of the most exchanged goods, and it was produced by women (Ardren et al. 2010: 275).
- (4) Honey was important in the preparation of food and its consumption. Women were responsible for the honey production (de Pierrebours 1999: 23). They took care of the bees that were producing the honey in a kind of empty tree trunk. The bees had a special characteristic: they don't sting (26th EMC).
- (5) Besides cooking and food preparation activities, the same person could be involved in butchery, leather, bone, and shell work. Some authors believed that women were practising these side activities. However, men could have also been realising them (Manzanilla 2009: 14; Emery et al. 2004: 808f.; Aoyama 2007: 19f.).
- (6) Some authors believe that the fireplace for cooking tasks could also be used as the fireplace for ceramic production. This would suppose that the elaboration of ceramics would have been a woman's activity (Scott et al. 2020: 550; Whitlock 1976: 50). Nowadays, potters are women, so it could also be true for the past. However, it is possible that the pottery was elaborated by other genders, fired by women, and decorated by other people.

As could be seen, the elaboration of food was probably only realised by the women. The consumption of food was segregated. Women needed to do the service for the men and guests, and didn't eat with them at the same time or

place. The person who produces and the one who consumes were differentiated by their location (26th EMC; Ardren 2020: 106).

8.2) Maya agriculture

The next part will deal with agriculture. It can be deduced that the majority of the population were farmers or people working with the landscape (Nichols 2012: 327). For example, the inhabitants of the Chan small settlement were mainly involved with farming activities (Robin 2012: 24). Assigning gender to agricultural duties is problematic because, to this day, only a few agrarian scenes have been found (26th EMC). Farming was not an exclusively male activity (Stockett 2005: 571). Even if the farming activity required hard work and strong people, women could probably give a hand during the plantation process, watering the crops, and transforming the harvest recollected by the men into food (Hopkins 2010: 4).

In the following, we will analyse two locations for the enactment of agricultural activities: the milpa and the orchards or gardens (Sheets 2002: 184). The milpa was a field located at the exterior of the city, and the orchards or gardens were placed near the houses inside the city (Arnauld 2014: 127). The construction of raised fields or terraces was a strategy used to gain the highest profit from natural resources. They could also show the inhabitants' investment of time and effort and the power they might have had to coordinate the work (Nichols 2012: 547; Arnauld 2014: 110). Agricultural terraces were proof of a farming community living nearby (Robin 2012: 9). The agriculture and land use were altering the surroundings of the cities in a unique manner so that every city had its own identity (Nichols 2012: 541). For example, in Río Bec, the city adapted to its special needs. Indeed, instead of spreading its inhabitants in vast locations, they preferred to keep the land for agriculture and built multiple-story houses (Arnauld 2014: 126). Agricultural terraces such as Caracol could also have been detected between households (Chase et al. 2017: 187). In addition, raised fields and slash-and-burn agriculture were methods of working the land used by the Maya (Morton 2007: 14). The agricultural

soils were enriched by some techniques, such as crop rotations or by reusing the household waste (Chase et al. 2017: 211).

The end products coming from the milpa and orchards were of great variety. The essential plant resources probably found in milpa were maize, squash, beans, chili, manioc, and malanga (Sheets 2002: 41; Whitlock 1976: 36f.). Some maize seeds from the previous harvest were kept for the future planting season (26th EMC). Orchards or gardens could produce avocado, guava, nance, cacao, calabash, capulin, and coyol (Sheets 2002: 41; Whitlock 1976: 36f.; de Pierrebourg 1999: 23). Cacao was reserved for the sacred food or the higher social classes of the community (Harrison-Buck 2017: 105). However, they could be cultivated not only by the elites, even though they possessed a higher number in their garden (ibid.: 114).

As can be seen, the agricultural activities were varied. The different steps could have involved only men, only women, or both genders. The location is differentiated, and this could lead to a segregated gendered activity. This means that the women could be responsible for the orchards and gardens near the houses, while the men were occupied with the milpa outside the city.

8.3) Marketplaces

The next part will focus on the marketplaces. Markets and trade were of importance to the Maya communities. It enabled the exchange of goods that the inhabitants produced in their households, items that come from different regions and are not available in others, or the possibility to buy some items that a household doesn't produce due to their focus on another activity (Nichols 2012: 639). The ruling elite was not involved in hard-working activities like the rest of the population. Indeed, they could survive thanks to the tribute the inhabitants had to give. They needed to produce some surplus of their activities to give it to the elites (ibid.: 673). Trade and diplomatic exchanges benefited the elites and their powerful

position in society. They were connected with other cities that could become allies in case of war (ibid.: 284).

Markets could be the place where personal adornments, ritual materials, daily goods, and exotic goods were exchanged and sold (Chase et al. 2017: 210). Cloth and salt were the two major exchanged goods, and both were produced by women (Ardren et al. 2010: 275). As could be seen on some maps from the Conquista period, the tools were classified into categories of objects. For example, there was a location for food, a location for shell artefacts, lithic tools, etc. (26th EMC).

The location of the markets and the objects sold and exchanged there were difficult to identify archaeologically due to their perishable materiality and ephemeral construction (King 2015: 60). However, the residue archaeology could enable to have information about some activities and the presence of marketplaces (Nichols 2012: 9). Indeed, through a higher concentration of phosphate in the soil, it is possible to detect if a market activity was taking place there (Awe et al. 2007: 217; Dahlin et al. 2007: 363; King 2015: 140). Food preparation and consumption on marketplaces could have been found through the higher concentration of phosphorus, meanwhile, craft items production areas could have been determined through a high concentration of iron and zinc (Dahlin et al. 2007: 375; King 2015: 140). Recent research about the marketplaces and their locations permitted us to hypothesise that markets could be enclosed by low concentric walls on the main plaza facing the temples in the core area (Houston 2020: n.d.). The wall in question is symbolic of securing the market, and the walls were not connected together (Houston 2020: n.d.; Ruhl et al. 2018: 83). Ruhl and his colleagues used LiDAR technology to identify the marketplaces. They also noticed that markets were centrally located, accessible through causeways, and placed in open areas near ceremonial structures (Ruhl et al. 2018: 84). King adds that near marketplaces should be a water reservoir, storage buildings, and middens (King 2015: 92). Market constructions could have been built of stone. They were composed of various gallery-type structures spaced by open areas (Ruhl et al. 2018: 86). For

example, the Tikal market near the East Plaza was built of various gallery-type structures (King 2015: 72).

The gender attribution to the market activities will be ascribed through the data due to the scarcity of evidence found in the published literature by the author.

8.4) Diet

The next part of the chapter about activities related to nutrition will be the diet. Here, the aim will be to investigate how it is possible to identify and reconstruct the diet of ancient people, and to look at how access to food and products was gendered. The diet depends on the environment, available resources, culture, and whether the person pertained to the higher social classes and could have access to various food products (Whittington 1997: 194). The diet of the ancient Maya could be investigated through the analysis of the carbon and nitrogen isotopes (*ibid.*: 160). These isotopes were taken from bone tissues or tooth enamel (Somerville et al. 2013: 1540; Negrete et al. 2020: 1).

After the skeletal analysis, we can see that a high juvenile mortality rate existed in society. This could have been due to infections, poor diet, and stress (Nichols 2012: 330). A lack of meat and maize consumption could lead to a deficiency in folic acid, vitamin B, and iron levels (Hernandez Espinoza et al. 2013: 229). Dental enamel hypoplasia could be seen on teeth through the apparition of lines in the dental crown region. Young males were more confronted with it, meaning that they had suffered from a nutritional deficiency during their growth (*ibid.*: 231). Cases of malnutrition and weaker immune system (health problems and a low-protein diet) could be seen more often in children from larger centres (*ibid.*: 232). Large centres like Palenque faced waste and garbage issues, resulting in food and water contamination (*ibid.*: 237). From the skeletal remains, it could be assumed that individuals living in smaller centres could enjoy better nutrition and have fewer infections than those living in big centres (Whittington et al. 1997: 136). The food mostly associated with the Maya was honey, agave, pulque, maize, cacao, beans,

tortilla, atole, pozole, tamales, sweet potatoes, chili, vanilla, yucca, etc. (Loughmiller-Newman 2013: 96f.). There might be a difference between the childhood and adulthood diet. Indeed, from the isotopic analysis, we can deduce that children ate more plants such as maize, beans, squash, and avocado (Negrete et al. 2020: 6). In addition, the microscopic analysis of remains in the ceramics can give us hints of what they might have contained and what people might have consumed. For example, maize, pigments, squash, and nicotine residues were found during the analysis of the Kislak ceramic collection recovered from Calakmul (Loughmiller-Newman 2013: 244f.).

The accessibility of certain products depended on gender and social status. The elite diet resulted from the trade of goods, allies, and economic circumstances (Somerville et al. 2013: 1551). Meat products coming from large mammals were more available to the higher social classes (ibid.: 1540). For example, men had access to more meat products (Manzanilla 2009: 11). From the skeletal remains and the isotopic analysis, it could be deduced that the elite from Caracol enjoyed a different diet than the rest of the population (Chase et al. 2017: 193). Elite women had a diet that was less varied than that of their male counterparts. It was more similar to the commoners than to the male elite individuals (Perez Lopez 2013: 52). The commoners took their food from their agricultural fields (garden, milpa, forest, or marine resources if some were located nearby) (Somerville et al. 2013: 1549). Through time, the diet of the commoners didn't vary; meanwhile, the elitist diet was more varied when they gained power and less varied in crisis periods (ibid.: 1540). Moreover, the more the social status of a person was high, the less carious lesions were present. They consumed less maize and had access to more varied food (Whittington et al. 1997: 176). The caries recovered from the dead individuals were linked to a rich diet in carbohydrates. Carbohydrates were present in maize. More women had the presence of caries. The apparition of caries could not only be due to diet but also to hormonal levels, oral hygiene, and age (Cucina et al. 2011: 1f.). Women had a much poorer diet than their male counterparts. Therefore, they might also have died at earlier ages than the men (Rodriguez-Shadow 2006: 26).

We could notice that the diet depended on the resources available and the environment in which the person was living. Food consumption was segregated between commoners and elite people, as well as between men and women.

8.5) Activities related to nutrition from the data

The last part of this chapter will deal with the nutrition-related activities recovered from the data. The data used for the investigation will be from iconography, burials and grave goods, and ethnography. We will analyse which gender was involved with which nutritional activity as it appeared in the data.

8.5.1) From the iconography

From the iconography, only a few people were depicted in activities related to nutrition. Through the ceramics (Figure 115), it could be analysed that women were involved in the service of food (K2707), in grinding activities (K1272), and they were represented with animals, probably for their domestication (K3069). Men had another role in nutrition. They were hunting and fishing animals to nourish the household members, which would be cooked and prepared by the women (K3055). They also carried various goods and even persons (K5847). These scenes were found in Kerr's ceramic rollout collection.

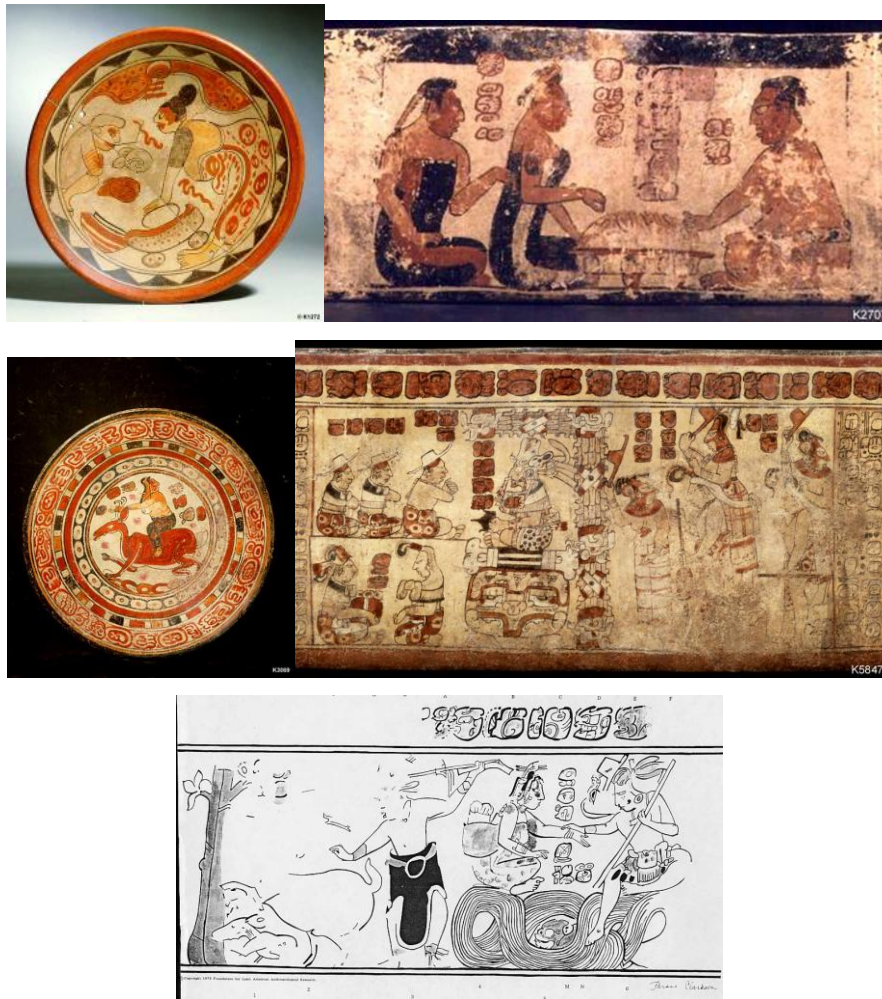


Figure 115: Example of activities related to nutrition from the ceramic scenes (from left to right K1272, K2707, K 3069, K 5847, and K3055).

One example of market activities was present in Calakmul on the Chik Nahb murals (Figure 116). The murals depicted a market scene in which we can have an idea of who was selling and exchanging, as well as what kind of goods were sold. In the murals of Calakmul, 1/3 of the individuals represented were women (Martin 2020: 342). These women wore hats, and this was a sign that they were involved in mercantile activities (Halperin 2014: 88). In addition, in this mural, we could see that a woman was depicted as having a supervision duty of the marketplace (King 2015: 55). Moreover, other women were selling food products to people, drinks, and probably other type of objects. In the mural, we can see that a woman is carrying a large ceramic on her head that might have contained liquid (water, atole, or another beverage). However, she is not the only person carrying objects. We can

also see a man holding various objects on his back, probably to sell them on the market.



Figure 116: Example of activities related to the mercantile duties from the Chik Nahb murals of Calakmul

From the iconography, we can deduce that the women were preparing food, doing service, recollecting water, domesticating animals, and selling food products on the market. Men were carrying non-comestible goods to the market to sell or exchange them.

8.5.2) *From the burials and grave goods*

From the burials and grave goods, it is possible to understand who was involved in which activity related to nutrition. As a reminder, some grave goods were used only for specific duties, and people were buried with artefacts used in their daily lives. Only the following data could be recovered from the author's visited sites.

Generally, what can be noticed from the burials under study is that the ones containing women were furnished with a higher number of ceramics than the ones containing men. This could be the case in which ceramics were used to prepare and serve food. Being a woman's duty, they were discovered with this type of grave goods. However, elite women might probably not be involved in food preparation as lower social class women; these ceramics could have been symbolic. The preparation of food was part of the women's identity. The same could be deduced with kitchen tools such as manos and metates. They were used to grind maize and

other products. However, some were analysed microscopically and didn't show any use marks. They were symbolically placed in the tomb with high-ranked women.

Other original grave goods or well-preserved perishable materials were found in the sampled sites. In various primary centres, seeds could be recovered mainly from women's burials, such as in Calakmul, Caracol, Dzibanche, Palenque, and Tikal. Women were associated with the fertile earth. Here again, elite women were symbolically linked to the fertile soil as individuals able to procreate and enrich the life of the city. Moreover, in Calakmul, a preserved beehive was found in association with a woman. This means that women were probably taking care of beehives and producing honey. In addition, figurine molds were found in burials of both genders. They were involved in the production of figurines.

From the burials and the grave goods data, it can be analysed that the women were responsible for preparing food, producing honey, and maybe planting seeds. Men and women were both involved in the figurine production.

8.5.3) *From the ethnography*

From the ethnography, it can be possible to investigate who was involved in which activity related to nutrition. For this, the author will first focus on his own observation in a Maya community in San Martin Jilotepeque and then on testimonies made by the Spanish friars after the Conquest period (Annex 5.2).

Nowadays, in the Mayan communities, it is still possible to observe some gendered roles in the different activities related to nutrition. The men were occupied whole days or weeks with the milpa; meanwhile, women were taking care of animals and the orchards. Some exceptions could be due to the migration of men to the USA. In this case, women would have to take the role of men in the fields. In the Yucatan Peninsula and Guatemala, some villages functioned only through women. In the usual situation, men brought the crops that grew on the milpa to the

women so that they could prepare them. Women were, therefore, responsible for food preparation and its service to other people. Indeed, women were the first to wake up in the early morning to prepare tortillas and other food products for the breakfast of the men and family members. The recollection of water and the grinding of maize could be done at home or at a special location in the village. All the women were doing their daily tasks together. Meanwhile, while doing their activities, they carried the child on their back, or the children helped with some tasks the women asked them to do.

In addition, women influenced the good preparation of atole and tamal. It is believed that if a woman is menstruating or pregnant, the atole won't be good and won't become thick. The tamal needs the presence of the women to cook correctly. If the woman leaves the kitchen while it cooks, it won't get ready. It is said that while leaving the cooking tamal, the woman took its soul. Therefore, if she has to leave the kitchen for a moment, she needs to put a corn cob inside the pot and pass her soul to it so that the tamal can continue cooking. The author spent most of the time in the kitchen with the women of the household, cooking, preparing food for the whole family, and chatting. The kitchen was the central location for the women in the house. For the author, it was interesting to cook traditional dishes and learn about some sayings.

Moreover, the kitchen tools differed from the ones the author used. Indeed, the tools were mainly composed of various knives, many manos, few metates, pots, pans, cups, plates, etc. The kitchen in itself was a single construction made of perishable material, located in the middle of the courtyard. There was a fireplace. The kitchen was the warmest place in the house. Within the kitchen, there was also an altar with some candles and an incense burner. The kitchen was used as a place of worship. Some special food and beverages were elaborated for rituals, such as the atole de pelota or tamal on special days or events.

In the marketplace of the village, various goods were sold. Men and women were selling different types of goods such as animals, meat, fruits, herbs, flowers, vegetables, cloth, different household objects, prepared food, etc. It can be seen that women mainly sold food products, and men sold meat and other products. The market was divided into two areas: one open-air and one covered. The covered market necessitated an infrastructure; meanwhile, the open air was made of tables and chairs, which would be ephemeral and rapidly packed.

Other observations were also made by Spanish friars after the Conquest and Contact period. A few of them will be discussed here. Men were mainly responsible for farming land, fishing, and hunting (Sahagun 1577: Book 10 27v; Landa 1959: 104; las Casas 1957: 147; Taladoire 2012: 70f. and 180). Men were working on the milpa and hunting with others. They helped each other (Landa 1959: 46). Pedro de Alvarado noticed that the agriculture was made of maize, beans, chili, cotton, cacao, pumpkin, and manioc (Garcia Anoveros 1987: 49). Near the households, they had various fruit trees such as guava, and plum, and herbs for medicinal purposes or seasoning dishes (Landa 1959: 110f.).

In colonial documents it can be analysed that women prepared food, did the service of it, educated children, domesticated animals, recollected water and salt, went to the market and sold their products, and planted seeds (Landa 1959: 65f.; Caso Barrera 2019: 107; Sahagun 1577: Book 1 3r; Sahagun 1577: Book 1 5r and v; Sahagun 1577: Book 8 31v; Sahagun 1577: Book 7 33r; Sahagun 1577: Book 10 37v; Sahagun 1577: Book 10: 31v; las Casas 1957: 145f.). Various animals were domesticated, such as pigeons, swallows, nightingale, turkeys, parrots, sparrowhawks, dogs, deers, peccaries, rabbits, etc (Landa 1959: 116f.). Women prepared food and did the service for the men. That is why men and women didn't eat at the same moment and location (*ibid.*: 43). During food preparation, some side activities could be done, such as leather crafting (Garcia Anoveros 1987: 45).

On marketplaces, various goods were sold, such as prepared food, salt, textiles, colours, feathers, animals, vegetables, herbs, honey, beverages, jewellery, ceramics, etc (las Casas 1957: 235). Various authors do not agree on which gender sold which product. Some affirmed that women were more used to selling things, and the men were transporting them (ibid.: 233). From the Madrid and Dresden Codices, both genders were transporting goods on their back (Taladoire 2012: 83, 118, 152f.). Others said that women sold beverages (Sahagun 1577: Book 10 68v) and men sold fish (ibid.: Book 10 58r). Sahagun, in another part of his books, didn't specify the gender of the sellers. He said that sellers of maize, cacao, beans, tortillas, tamales, colours, and fruits were men and women (ibid.: Book 10 46r f.).

The food consumption by the Maya was diverse. The Spanish friars made some enumerations in their books of the available food. The people were consuming maize, beans, pumpkin, chili, avocado, cacao, tortillas, stews, meat, fish, tamales, tomatoes, eggs, atole, herbs, shells, mamey, almond, peach, melon, lemon, oranges, and honey (Garcia Anoveros 1987: 45; Landa 1959: 43; Sahagun 1577: Book 8 22v f.; Sahagun 1577: Book 11; las Casas 1957: 197f.). Hunting and fishing were seen as complements to the people's diet (Garcia Anoveros 1987: 45).

Finally, in the Florentine Codex by Sahagun, some illustrated scenes represented people involved in activities related to nutrition. Women were depicted as market sellers, caring for children, preparing food, and preparing cacao. Men were represented in farming, fishing, hunting, and grinding activities. Moreover, hunting activities were also represented in the Madrid and Dresden Codices (Taladoire 2012: 70f. and 180).



Figure 117: Example of activities related to nutrition from the Madrid Codex (Taladoire 2012: 71), Dresden Codex (Taladoire 2012: 154), and Florentine Codex (Book 4 72r; Book 10 47v; Book 10 58v; Book 10 38r)

8.6) Chapter summary

In this chapter about activities related to nutrition, various themes were covered. The aim was to identify which activities or steps were needed and realised by which gender. Different sources were explored and compared (literature, iconography, osteology, burial context, and ethnography). Four sectors were under study: food preparation and consumption (1), agriculture (2), marketplaces (3), and diet (4).

- (1) The food preparation and consumption were part of the women's identity. Indeed, they were responsible for cooking the food and doing the service. Even the grave

goods assigned to women were artefacts for food preparation (mano and metate). For the elaboration of food and beverages, some other tasks are needed, such as the recollection of water, firewood, and salt. As side activities, they domesticated animals and produced honey. While realising their daily activities, the women also needed to educate their children. Women were helping each other with their tasks. Men contributed to the elaboration of food with their tasks as hunters and fishers. Both genders could also be involved in side activities resulting from preparing food duties, such as butchery, leather craft, bone and shell craft, ceramic production, etc.

- (2) Agriculture was an important activity. Most of the population was working in farming activities. Some land management could increase the resources profit from the terraces and raised fields. The crop rotation and the reuse of household waste were strategies to enrich the soil. The Maya used two kinds of fields: milpa and orchards. The milpa was mainly under the responsibility of the men. They prepared the field and did the harvest. However, both genders could be involved with planting seeds, watering, and caring for the crops while they grew. Generally, maize, squash, beans, and chili were planted on milpas. The orchards were seen as the domain of women. They planted and took care of fruit trees, herbs, and flowers.
- (3) The marketplaces were the location in which various goods were sold or exchanged, such as food, transformed food, salt, textiles, exotic goods, jewellery, ritual objects, etc. The market enabled the exchange of goods between households, cities, or regions. Archaeologically, the marketplaces are hard to identify due to their perishable construction. However, the phosphate concentration in the soil can make the market visible. Indeed, if a space had a high concentration of phosphorus, it could mean that food activity took place there. The high iron and zinc concentration could signal that it was a space for crafting activities. From the data analysis, it can be deduced that men transported goods and women carried water and food. Women were probably selling more goods related to food and textiles than men.
- (4) The diet of the ancient Maya could be recovered. It depended on the environment, available resources, social class, and gender. The diet could be analysed through the carbon and nitrogen isotopes present in the bones and tooth enamel or the food remains in the ceramics. It resulted in some individuals suffering malnutrition, leading to deficiencies, diseases, and even death. Big centres deal with a higher number of health issues than smaller centres. The diet of the commoners was rich in maize, and meat products were sometimes available. Mostly, men could enjoy

eating meat. The elite diet was more diversified. However, women had less access to meat products than their male counterparts.

In the following, a hypothetical schema reconstructs how the activities related to nutrition were linked together and made by which gender.

Activities related to nutrition

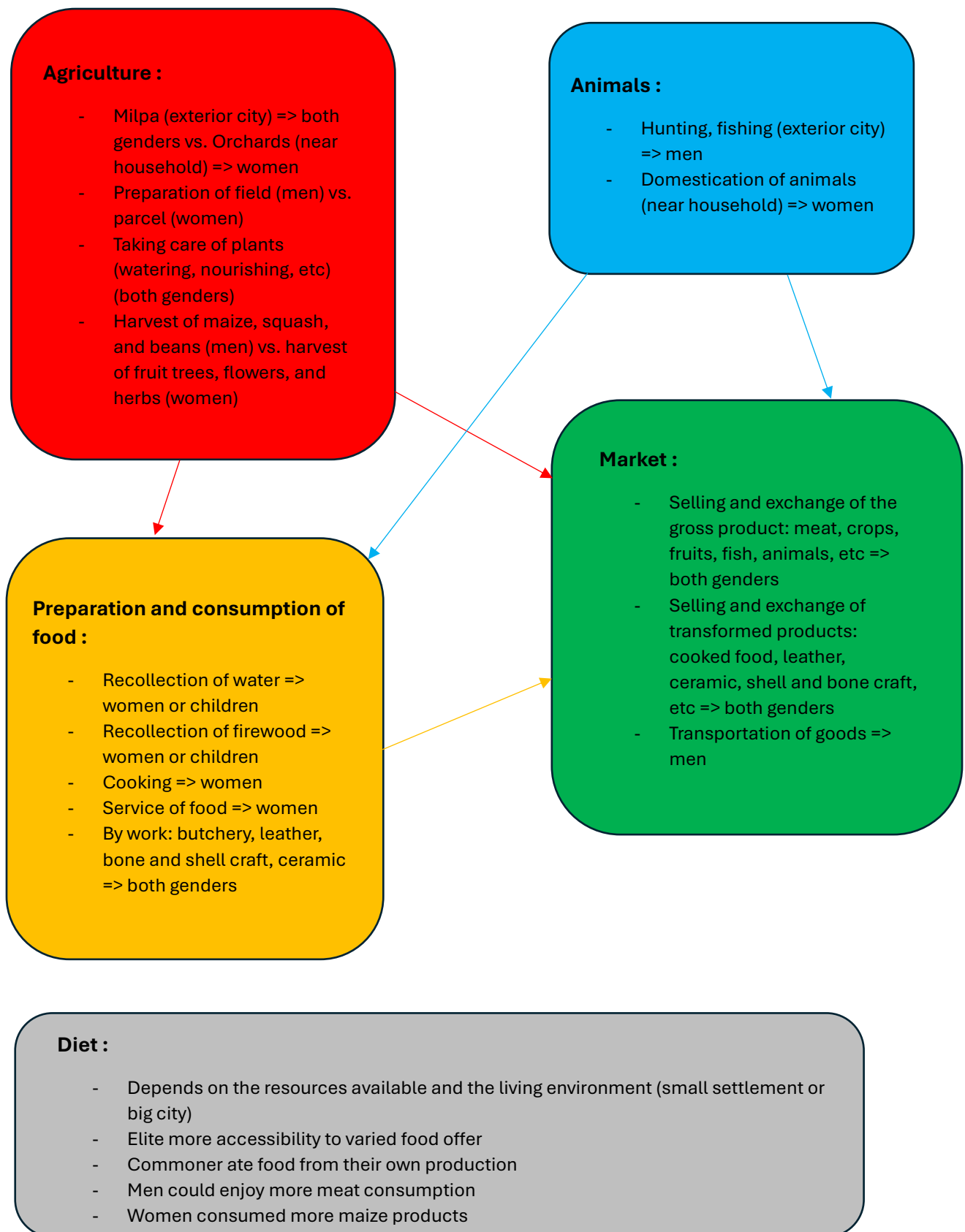


Figure 118: Hypothetical schema of activities related to nutrition

9) Civic-ceremonial activities

The following chapter will focus on the civic-ceremonial activities. Here, the aim will be to identify which gender was involved in which duties. For this, we will examine the political activities mostly involving the royal elite. The warfare will be discussed next, studying the captives and their captors. The rituals will be the following theme. Some rituals and the different roles men and women might have had will be evoked. The administrative and civic activities will regroup tasks such as scribes, painters, sculptors, and ballgame players. Finally, the data present in the iconography and epigraphy, funerary context, and ethnography will be analysed. These sources could give a hint at the genders involved in various civic-ceremonial activities.

9.1) Political activities

The theme of political activities encompasses various tasks involving mainly royal elite individuals. Some were already mentioned in Chapter 3 of this doctoral thesis. A small reminder will be done.

Through the epigraphy, it is possible to recover the titles people had and the functions they might have had. For example, *ajaw* can be assigned to a ruler, while *ix ajaw* could be ascribed to a queen. Various similar titles were deciphered. Even if more men were linked with these titles, women were also present and holding some of these titles. The elites were involved in various activities, including rulership (Inomata et al. 2018: 175f.; Lucero 2006: 146). Figurines were impersonal and could broadly represent royal elites from both genders (Halperin 2014: 46f.). Men, through their representation in figurines, could be ascribed to various activities such as rulers (Rodriguez-Shadow 2006: 23). In the North Group of Copan, elite women burials were found. The bones of these women lacked marks for repetitive activities such as the kneeling position, which deformed the lower limb joints. This means that they might have been involved in other practices such as weaving on a loom or ruling activities (Ashmore et al. 2016: 14). Therefore, elite

women, instead of doing all the hard work by themselves, could delegate it to other lower-status women (ibid.: 16).

Women were mostly seen as mothers, sisters, or spouses; meanwhile, men could enjoy various activities relying on their strength (Perez Lopez 2013: 19). Women were taken as a diplomatic tool to forge allies and the dynastic power of their husbands. Through the dynastic lines, it could be seen that women could come from different cities, be regents if the child was too young to rule, or rule by themselves (Nichols 2012: 665). Women with leading roles were mostly absent from the stone monuments and inscriptions but were present in burials (Chase et al. 2017: 220). Iconographically, women were more represented in secondary roles with a passive posture than primary ones with active postures (Perez Lopez 2013: 116; Cohen et al. 2009: 157). They were not put into the foreground in narratives such as the men (Hopkins 2010: 1). However, when women were represented with netted skirts on stone monuments this could mean that they were involved in political activities (Banach 2017: 21). For example, the Stela 3 from Piedras Negras is a rare case study of a queen showing her daughter the duties she might be confronted to in the future (Figure 119) (Rodriguez-Shadow 2007: 122).

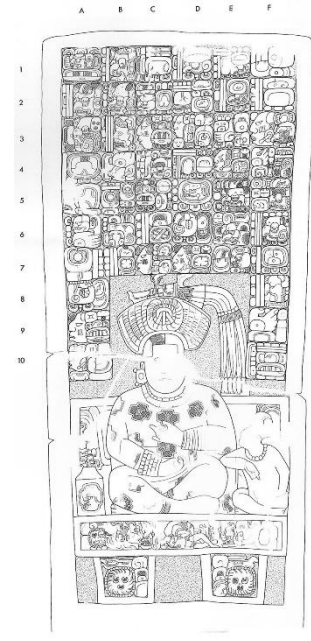


Figure 119: Stela 3 of Piedras Negras
(Piedras Negras | Peabody Museum
(harvard.edu))

The political activities mainly involved ruling duties. These were enacted by men. However, through epigraphy and iconography, it could be proved that women also had an important role to play. They could enjoy some titles and functions such as regent or queen. Moreover, they were taken as a tool to enrich a dynastic line through marriage alliances. Even if they were less mentioned than the men, they were having leading tasks. This lack could be due to a non-differentiation of the titles for women (no use of the prefix *ix*), the destruction of their depiction by following rulers, or the absence of recovered evidence during the excavation.

9.2) Warfare

Warfare is the next topic of interest. Indeed, as in every culture, warfare was present. For the Maya, most wars occurred during the dry season between November and May (Chase et al. 2013: 35). During the other moments of the year, the warriors were occupied with the fields and agriculture (Martin 2020: 222f.).

Through the epigraphy and iconography, we could notice that the elites were involved in various activities linked to warfare (Inomata et al. 2018: 175f.; Lucero 2006: 146). Making war and fighting could be seen as an exclusive task for men. For example, the figurines depicted only men as warriors (Rodriguez-Shadow 2006: 23). One exception would be the figurine representing Lady K'ab'el from Peru-Waka wearing armor (Palus et al. 2015: n.d.) (Figure 120).



Figure 120: Figurine of Lady K'ab'el from Peru-Waka in armor

Moreover, the warriors saw the skeleton of a woman as a relic that gave them good luck (Rodriguez-Shadow 2007: 159). However, women were involved in military activities (Nichols 2012: 665). Indeed, they could enjoy the same military titles as their male counterparts. For example, Lady K'awiil Ajaw from Coba and Lady Six Sky from Dos Pilas went to war and oversaw many captives (Guenther 2014: n.d.; Grube et al. 2008: 62). In Yaxchilan on the glyphic stair of Structure 33, women were present with warship elements such as humiliating captives, enjoying war titles, or being depicted as captives themselves (Perez Lopez 2013: 57). In the iconography ruling women were depicted standing atop captives, trembling them, holding arms or helmets of their husband (Figure 121). Therefore, they played an active role in warfare (Rivera 2020: 1f.; Hughes 2008: 5; Reese-Taylor et al. 2009: 41). Most of the war captives were male. From the remaining sources, only a few women were depicted as captives, such as the Monument 99 from Tonina or the shell remains K4499 (Martin 2020: 207; UNAM Segunda jornada Mujeres Maya 2024) (Figure 122).

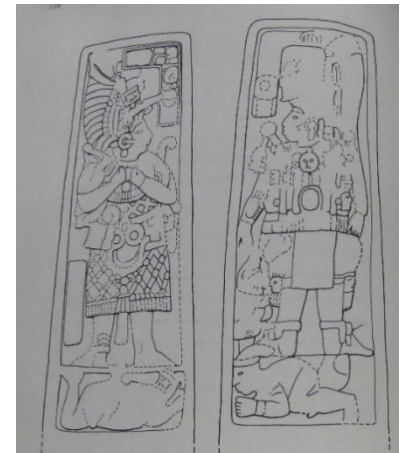


Figure 121: Calakmul Stela 28 and 29 of the ruling couple trembling captives

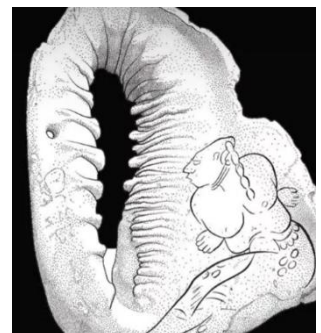


Figure 122: Shell remains with a captive woman K4499

As it could be analysed, both genders were involved in warfare, sharing similar titles and iconographical representations. Even if women were less present in warfare (war leader, military, captive), they played an equal role to the men.

9.3) Rituals

The following part deals with ritual activities. The aim will be to understand who might have practised which ritual and what it consisted of. Some rituals were already evoked in Chapter 3 of this doctoral thesis and will only be briefly discussed here as a reminder.

From the iconography and epigraphy, it could be possible to reconstruct and analyse some rituals that the Maya enacted. Both genders were depicted while enacting religious ceremonies (Spinden 1975: 21). It could be noticed that mostly men were represented. Indeed, women were excluded from ritual activities (Rodriguez-Shadow 2007: 55). This could be due to the men's activities in writing the ethnographies and making the iconographies. Men were more interested in men's activities. Therefore, women were less visible, and the data needs to be treated carefully. Fertile women who menstruated were taboo. By the Lacandon Maya, this is still the case nowadays. They can't approach sacred places or participate in rituals (Banach 2017: 144). The menstruation is perceived as an uncontrolled bloodletting that could cause disharmony during rituals (ibid.: 145). However, elderly women could have been part of rituals due to their lack of menstruation, and in that way, they were no longer seen as a threat to the well-execution of it (Rodriguez-Shadow 2007: 104; Frühsorge et al. 2009: 163). In addition, some women had the role of priest and could be responsible for the divination (Halperin 2014: 80; Perez Lopez 2013: 104). For example, a miniature vase was found in the Ethnological Museum of Berlin. It depicted a woman's face, and the inscriptions on it qualified the woman as a priestess (Figure 123) (Grube et al. 2006: 188f.). Women practising a ritual were depicted wearing a huipil (Banach 2017: 21).



Figure 123: Miniature vase showing a women priestess (Grube et al. 2006: 188f.)

On the one hand, women could have an active and prominent role in the realisation of a ceremony. The bloodletting ritual involved mostly the presence of two people (Robertson 1973: 111). It consisted of the perforation of the penis for men and a perforation of the tongue for women. The blood will be collected on paper, which will be burnt for the gods. This ritual was realised to commemorate the heir, the ancestors, and the lineage (Welsh 1988: 198). The tools used to perforate the body parts comprised stingray spines, baskets, and papers. Stingray spines were recovered from some elite (men and women) burials as grave goods (Dacus 2005: 25). The bloodletting act for men was a rite of passage and was linked to procreative powers (Martin 2020: 105f.). The representation of bloodletting rituals showed more women practicing it than men. The men would have needed to show their genitals, which was a topic that was taboo for the Maya (Perez Lopez 2013: 102). For example, Structure 23 from Yaxchilan had the representation of three lintels in which the individuals depicted were practicing different rituals such as bloodletting and communication with ancestors (Orellana 2012: 176; Tate 1992: 89f.). We could investigate that the ritual following the bloodletting was the communication with the ancestors (Figure 124). This task was realised by women. We can ask ourselves if the men controlled the terrestrial realm and the women the spiritual world (Hughes 2008: 16).



Figure 124: Yaxchilan Lintel 24 and 25 Structure 23 depicting the bloodletting and vision serpent rituals

On the other hand, women had a secondary role in rituals. Indeed, women were seen as helpers, object holders, or the company of the men for the enactment of the rituals (Moreno n.d.: 3; Rodriguez-Shadow 2006: 22; Perez Lopez 2013: 116; Rodriguez-Shadow 2007: 59; Cohen et al. 2009: 157; Parpal Cabanes 696). For example, the enema ritual consisted of an injection through the behind of alcohol or hallucinogenic products that permitted to communicate with ancestors or gods (Figure 125). Women placed the product into a tube and helped to put it into the behind of the men (Hughes 2008: 6; Patrois 2008: 214). Moreover, women were not allowed to practice rituals in the same amount as men. However, even if women were not physically present, they mainly elaborated the objects needed for the rituals. They were, therefore, symbolically present during the rituals (Hughes 2008: 2f.; Alonso Olvera 2013: 65; Parpal Cabanes 2021: 678f.). In addition, iconographically, through the figurines and ceramic scenes, some ceremonies could consist of the recreation of myth. For example, dance and performances in figurines were practiced only by men (Halperin 2014: 45). In the ceramic narratives, women were helping the Maize God to dress himself, or they were accompanying the old god Itzamna (Figure 125).

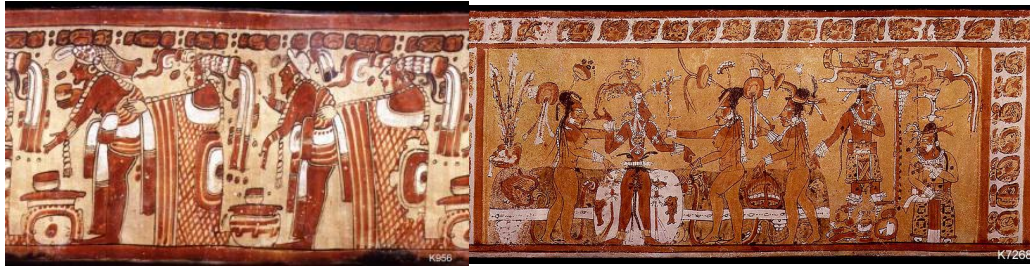


Figure 125: Ceramic rollout K956 with the enema ritual and K7268 with the dressing scene of the Maize God

As we could deduce, the presence of women in rituals is ambiguous. Indeed, they could be present physically and realise rituals such as bloodletting or communicating with the ancestors. They could also be excluded from the sacred world due to their ability to menstruate. However, they could be symbolically present in the preparation of the rituals and the elaboration of objects needed during the ceremonies by the men. Finally, they could enact a secondary role as helpers, company, or holding of objects for the men practising the rituals or recreation of myth.

9.4) Administrative and civic activities

The administrative and civic activities regrouped various tasks that were classified in this way by the author. For her, the administrative duties were those of the scribes, painters, and sculptors. The civic activity presented here will be the ballgame. It is qualified as civic because it allows people to gather together around one event. The goal of this part will be to identify which gender was involved in the different tasks.

The elites were responsible for administrative activities such as scribes (writing the inventory of the tribute recollection, writing books, organise the storage, etc.), painters (for ceramics, for stone monuments, for murals, etc.), and sculptors (realisation of stone monuments, friezes on structures, etc.) (Inomata et al. 2018: 175f.; Lucero 2006: 146). The evidence of these individuals and their identities is low. Indeed, it is possible to identify them through their signature, titles,

iconography, or by comparing their writing and painting methods. In the majority, men were involved with administrative activities. For example, a stone carver depicted in iconography was seen on the Emiliano Zapata Panel (Figure 119) (Jackson 2017: 580). However, few women had titles as scribes and were depicted as such (Nichols 2012: 665; Halperin 2014: 80; Parpal Cabanes 685). For example, the ceramic K6020 represented a woman as a scribe (Figure 126) (Perez Lopez 2013: 56).



Figure 126: Emiliano Zapata Panel (An image of a Classic Maya carver and his stone (Emiliano Zapata Panel,... | Download Scientific Diagram (researchgate.net) and ceramic rollout K6020

Furthermore, women were wearing and depicted with huipiles containing glyphs. For example, the Lady wearing a blue huipil in the Chik Nahb murals or the Lagartero figurines were evidence that some women were literate (Ekholm 1979: 175; Carrasco Vargas et al. 2012) (Figure 127). In various cases, women were the ones who painted (Carrasco Vargas et al. 2000: 67). Moreover, potters and scribes could have been the same person (Loughmiller-Newman 2013: 13). Indeed, both activities are interrelated. The preparation of a polychrome ceramic starts with the knowledge of the paintings to let the space for them (Magaloni et al. 2022: 425). If these activities were made by the same person, they would be practiced in the same location. If not, the potter and painter would exchange ideas and communicate with each other (ibid.: 419).



Figure 127: Lagatero figurine and Chik Nahb mural of Calakmul

The ballgame could have been seen and interpreted as an entertainment event, a political competition, a calendrical renewal, or a ritual event. The ritual events were linked with violence and sacrifices (Scherer 2015: 209f.; Halperin 2014: 62). This game could also symbolise the one that the Hero Twins had to play against the Gods of the Underworld as it was written in the *Popol Vuh* (Martin 2020: 338) (Figure 128). The ballplayers depicted on stone monuments, ceramic narratives, and figurines were exclusively men. Until now, no women have been seen playing ball (Rodriguez-Shadow 2006: 23). However, during ballgame events, women were present as spectators as a symbol for regeneration (Perez Lopez 2013: 56).

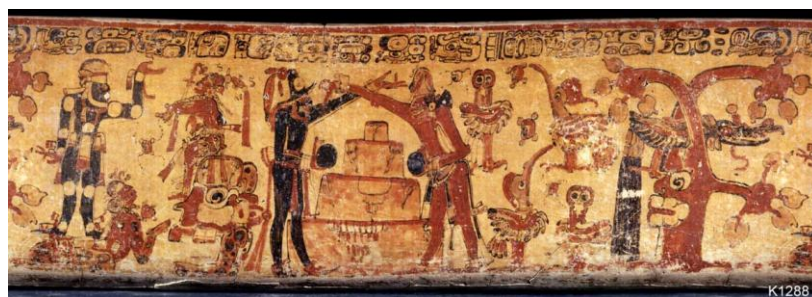


Figure 128: Ceramic scene K1288 with the Hero Twin playing ball

As it could be analysed, men were mainly responsible for administrative and civic activities. However, there is little evidence of women as scribes, painters, and sculptors. For the ballgame, they had a secondary role as spectators. Men were the

players. For the sacrifices, both genders might have been involved. A lack of testimony and evidence is present for this data.

9.5) Civic-ceremonial activities from the data

The last part of this chapter will focus on the civic-ceremonial activities that could be seen in the data composed of the iconography and epigraphy, from the funerary context, and the ethnography. The objective will be to find evidence of the genders involved in different civic-ceremonial activities: who was responsible for which tasks.

9.5.1) From the iconography and epigraphy

The first sources to be investigated will be the iconography and epigraphy (Annex 4). Through these media, political activity (1), warfare (2), rituals (3), and administrative and civic activities (4) will be analysed.

- (1) The political activities could be seen in the epigraphy. Indeed, through the titles of the royal elite, it is possible to reconstruct the dynastic lines and marriage alliances. Some dynastic lines were mentioned in Chapter 3, figures 16 to 29 (Grube et al. 2008; Marcus 1987; Garza et al. 2012; Robertson 1985; archive INAH; archive Campeche, Guenter 2014). Some examples will be taken here. In Calakmul, five women were cited as being the wives of Calakmul rulers. They might have been necessary to mention due to their origins and power. The city they came from could mean new alliances and be worth signalling for the power it could give to the dynastic line of Calakmul. The dynasty of Dos Pilas mentioned that rulers could have more than one wife. In Caracol, we could see that women arrived from other cities such as Lady Penis Head of Xultun or Lady Batz' Ek' that came from an unknown city in 584AD, and that the primary wife was the one who could give birth to the next ruler. In Copan, the founder of the city, K'inich Yax Kuk' Mo', was not originally from the region. He married Lady in Red to be accepted in the city and to be able to rule. In addition, Yax Pasan Chan Yopaat was a ruler of Copan, who mentioned his mother and her city of origin. This means that he gained the

right to rule through the status of his mother. His mother had more power than his father. In Naranjo, we have an example of a woman, Lady Six Sky, ruling in her own rights. Some wives and mothers were mentioned by rulers to legitimise their right to rule and the power of the dynasty through alliances. Moreover, Lady Shell Star was presented with her title as *ix ajaw* of Yaxha. This means that she was ruling in Yaxha. In Tonina and Piedras Negras, few women are known as mothers or wives. In Palenque, two women ruled in their own rights. With this dynastic line, it can be noticed that the right to rule passed from father to son, but also from older brother to youngest brother if the descendants were absent. In Tikal, the Lady of Tikal ruled and had the titles of *ix ajaw* and *ix kaloomte'*. In Yaxchilan, we can see an example of multiple wives for one ruler, each of whom came from a different city. Itzamnaaj Bahlam III had three wives. One was co-ruling with a man during an interregnum time, one had the title of *ix ch'ok*, and the last one had the title of *ix ajaw* of Calakmul. In Coba, there is evidence of three women ruling in their own rights, and in Bonampak, there was Lady Bonampak. In Ek Balam, the founder's wife had the title of *k'uhul ixik* and came from Coba. In Chichen Itza, the dynastic line started with the alliances of the foreigners with the local women. Two women ruled in their own rights.

In the iconography, we could observe that men and women were depicted as rulers. Women with a leading role wore a netted skirt. They could have been represented on stone monuments and figurines as sitting on a throne or standing (Figure 129). They could be seen as symbolically passing the right to rule to their descendants as the passage of the crown, as analysed in the Oval Palace Tablet of Palenque (Figure 130). Moreover, women could be depicted on stone monuments as equal to men with the paired stela that appeared first in Calakmul (Figure 131). Indeed, it represented the ruling couple on one single stela, each of them on one side. In addition, mostly men were depicted as rulers. The women as wives were placed in a secondary narrative (Figure 132). They had a lesser role than the men. This could be seen through their posture, such as their location behind the ruler, sitting or standing next to him, or having a role as a spectator of palace scenes.

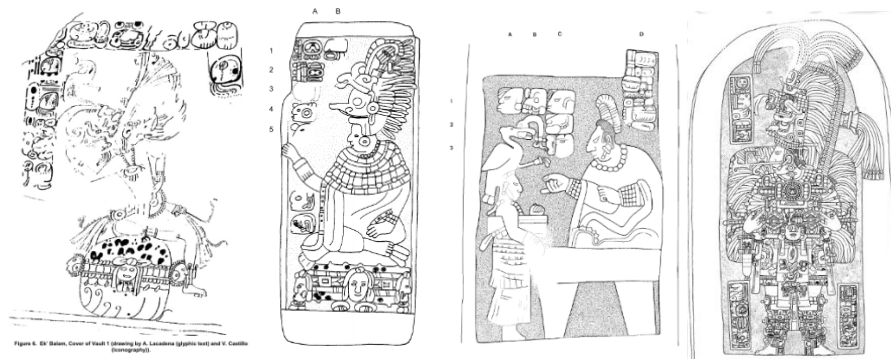


Figure 129: Example of royal elite representing standing or sitting on a throne (Ek Balam cover vault 1, Edzna Stela 20, Yaxchilan Lintel 57, Tikal Stela 16, Copan Altar Q, figurines 5776 and 5787)



Figure 130: Oval Palace Tablet of Palenque

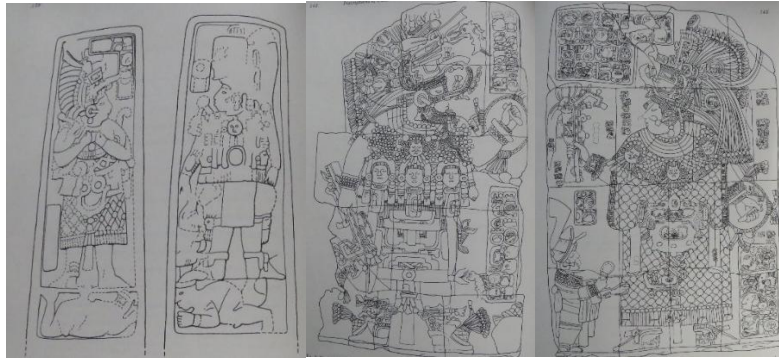


Figure 131: Example of the paired stela (Calakmul Stela 28 and 29, and Stela I and II)



Figure 132: Example of women in a secondary role (ceramics K4030 and K5416)

To conclude, women were mothers and wives of rulers. They could pass the power of their dynastic line to another through marriage alliances. They could also legitimate the right to rule. Some women had high-status titles such as their male counterparts (*ix ajaw* and *ix kaloomte'*) and could, therefore, rule in their own rights. However, they could also only have the right to rule with the help of councillors as long as the future ruling child was not old enough to rule. Some women had a secondary role at the side of their husbands as spectators and support for them.

- (2) Warfare was an activity that was often represented in Maya iconography. The warfare could be depicted as a battle where people from different cities and entities fought (Figure 133). People fighting had a special armor made of feathers or cotton, as seen in the figurines, ceramics, or stone monuments. The arms were mostly composed of knives, shields, bows, arrows, and spears (Figure 134). The gender involved in making war was men. Warfare could also be represented by the capture of captives (Figure 135). This theme was mainly seen in the iconography. For example, the sites of Tonina and Dzibanche were famous for their excessive

imagery of captives. The capture of captives was done by men. Generally, the captives were men, but one depiction of a captive in Tonina represented a woman. Both genders could realise the humiliation of captives. It consisted of ruling elites trembling atop the captives (Figure 136).



Figure 133: Example of a battle scene (mural room 2 of Bonampak, Chichen Itza Temple of Jaguar)

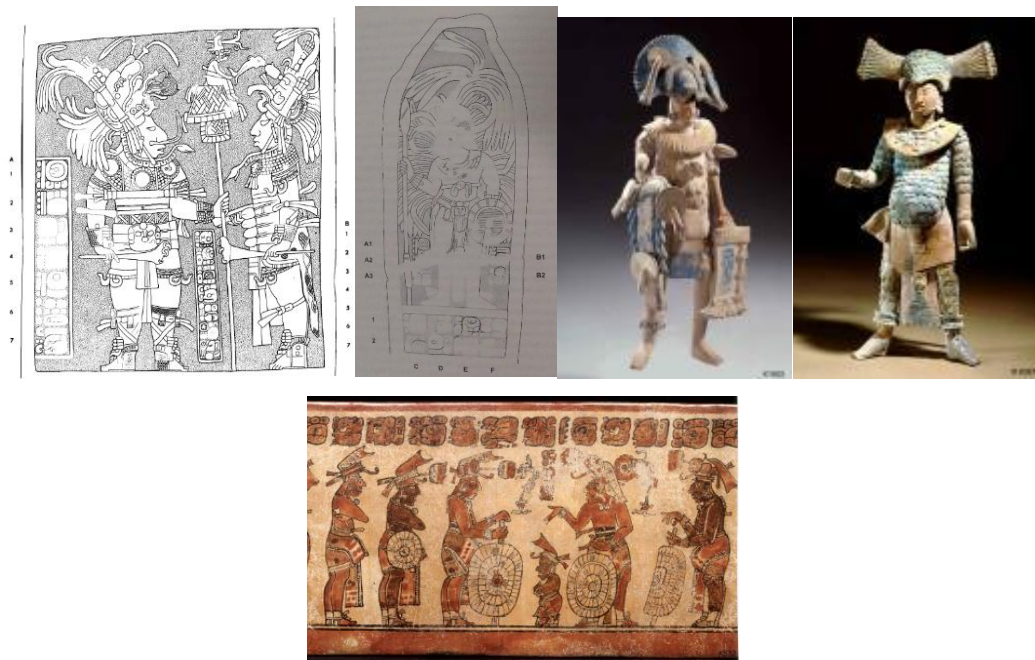


Figure 134: Example of armor and arms of warriors (Yaxchilan Lintel 6, Xunantunich Stela 8, figurine 1503 and 2876, and ceramic rollout K532)

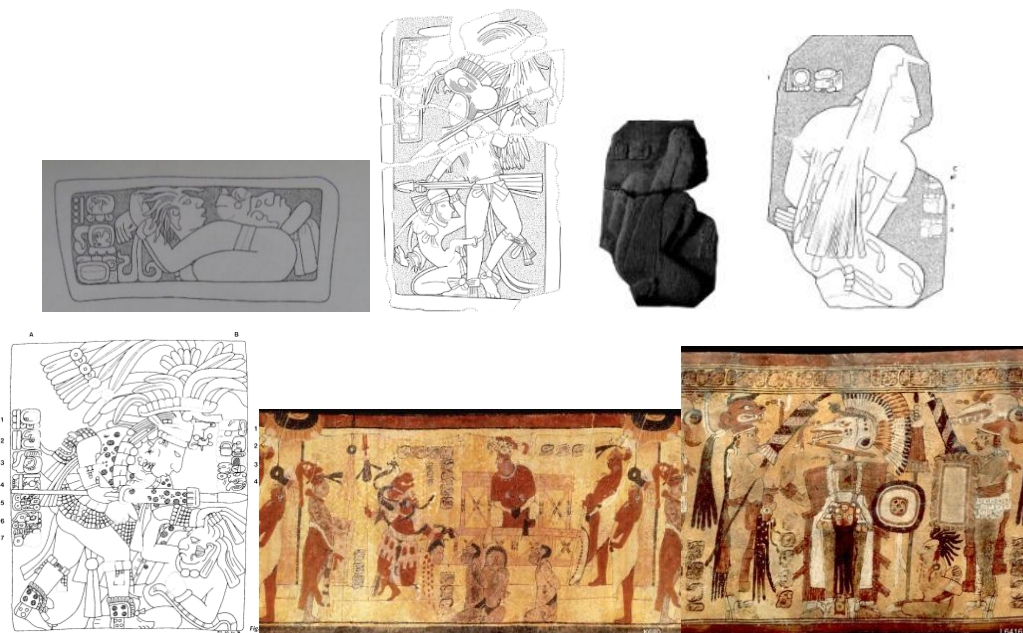


Figure 135: Example of capture of captives scenes (Dzibanche Monument 3, Kabah Manos Rojas, Tonina Monument 99, Bonampak Lintel 1, and ceramic rollouts K680 and K6416)

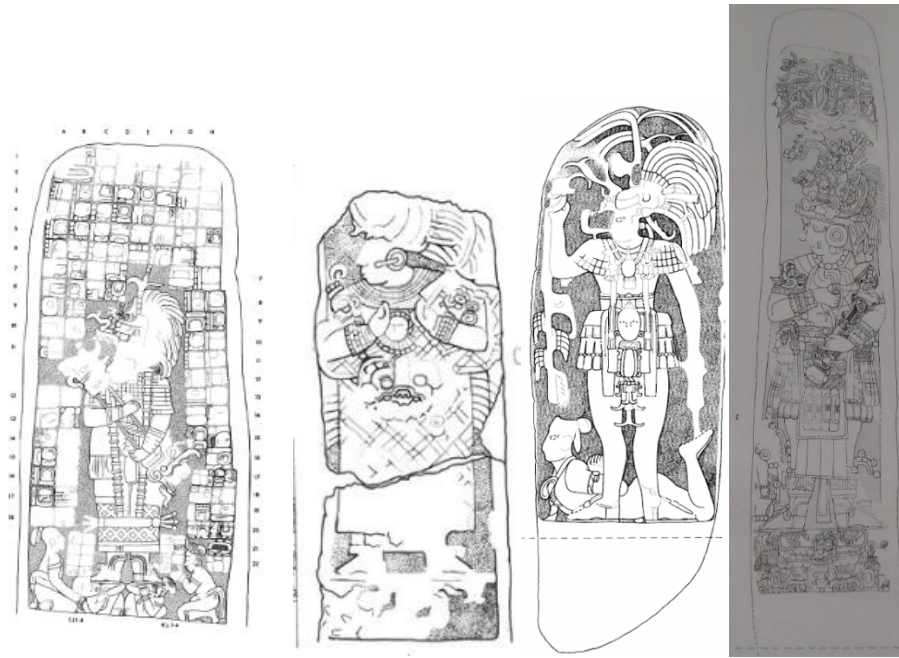


Figure 136: Example of ruler humiliating captives (Coba Stela 1, Calakmul Stela 88, Tikal Stela 10, and Caracol Stela 6)

To conclude, warfare was mostly a man's affair. However, women were not absent from this sphere. They could humiliate captives or be taken as captives.

- (3) Rituals were often represented in the iconography. Four types of rituals will be discussed here. First, we will look at representations of bloodletting rituals (Figure 137). Only a few men were seen enacting this ritual. Indeed, the men needed to perforate their genitals, which was taboo. Women needed to perforate their tongues. This scene was mainly shown. Both genders were involved in this ritual, but mostly women were depicted. Then, the vision serpent could be a ritual that followed the ritual of bloodletting (Figure 138). Women were portrayed as being able to communicate with a serpent from which a human head comes out. This human person could be an ancestor or a god. The ritual might have been exclusively done by women due to the scarce evidence of men performing this task. Next, we will deal with the enema ritual (Figure 139). This event was probably practised only by men. Women were preparing the products and helping the men to inject them into their bodies. Women had a secondary role, but this ritual could not have occurred without them. Finally, it could be seen that some rituals were the recreation of myths

(Figure 140). For example, the dressing scene of the Maize God by women or the scene of the dying God Itzamna cared for women showed that women were helping and performing a role during the enactment of the rituals.

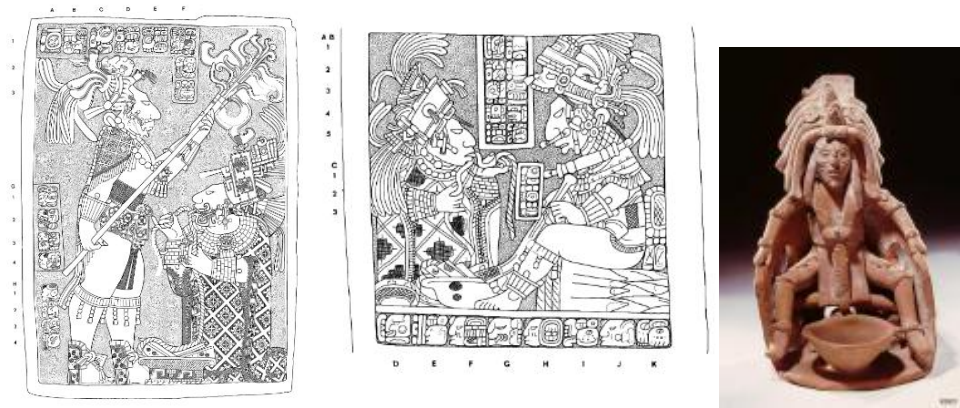


Figure 137: Example of bloodletting ritual (Yaxchilan Lintel 24 and 17, figurine 2821)



Figure 138: Example of vision serpent ritual (Yaxchilan Lintel 15, and ceramic rollout K1198)



Figure 139: Example of enema ritual (ceramic rollout K956 and K1890)



Figure 140: Example of recreation of myth scenes (ceramic rollouts K1559 and K7268)

In addition, various activities were linked to the rituals. Indeed, some individuals were dancing or playing music (Figure 141). The musical instruments could have been the drums, flutes, and bells. They performed scenes with the use of masks. Most of the performances and music were realised by men (Whitlock 1976: 105). However, few women could participate. Women could participate in some dances and perform divination tasks through the mirror with which they were depicted. If they didn't have the primary role in the enactment of rituals, they could be a key element for the elaboration of some goods needed by the men to realise the events. For example, women were responsible for the elaboration of bundles. They were holding or symbolically associated with them while being absent in the depiction of the ritual (Figure 142).



Figure 141: Example of musicians and dancers (figurine 7549, ceramic K554, ceramic K3463, and figurine 4801)

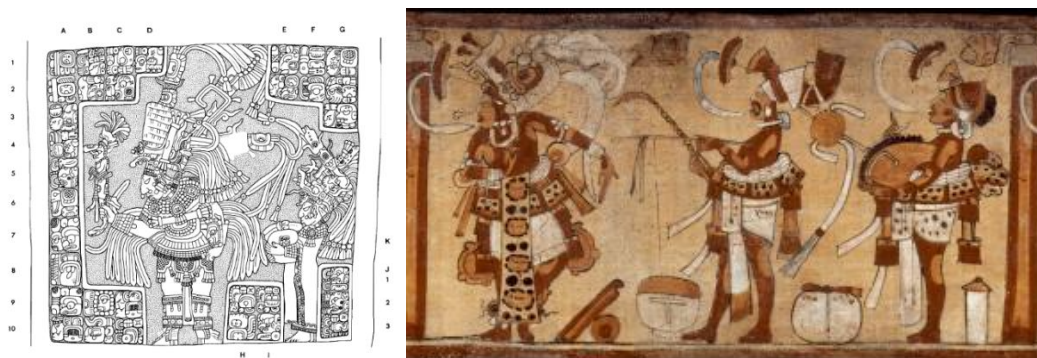


Figure 142: Example of woman holding bundle or symbolically linked to it (Yaxchilan Lintel 1, and ceramic rollout K5233)

Through the epigraphy, it could be deciphered that men and women could be involved in the function of priests. One example of a priestess was found in the Ethnological Museum of Berlin, discussed in part 9.3 of this chapter.

To conclude, men were mostly responsible for the rituals. They danced, performed, played music, and realised rituals. Meanwhile, women had restricted access to sacred events. They could be responsible for the elaboration of goods needed for the rituals and be symbolically present through them during these events. They

could also help or hold sacred objects for the men. Few rituals, however, required their presence, such as the bloodletting or the vision serpent ritual. In the epigraphy, both genders could be involved in the function of the priesthood.

- (4) The administrative and civic activities were varied. On the one hand, there were scribes, painters, and sculptors. Iconographically, they were recognisable through their working implements such as cinct, codices, colours, miniature vase, etc. Both genders were involved in these activities, and a higher number of men were enacting these tasks (Figure 143).



Figure 143: Example of scribes (ceramic K760, K954, and K8802)

On the other hand, the ball players and the sacrifices were part of the civic activities (Figure 144). All evidence about ballplayers was ascribed to the men. The implements needed to play were the yoke, hips, and knee protection. The sacrifices that could have followed the game could require men and women. Indeed, in Tonina, we can see a woman fighting with a man. This scene was recovered near the ballcourt. The ballcourt of Chichen Itza had imagery showing that men and players were sacrificed after the game.

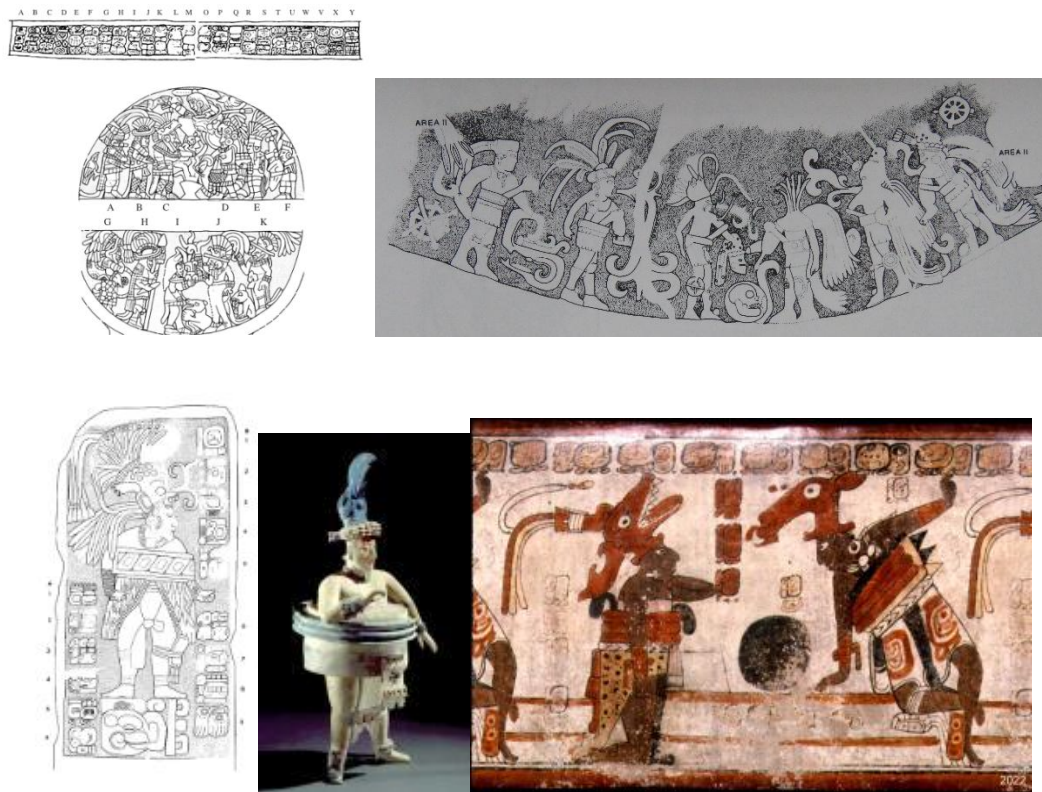


Figure 144: Example of sacrifices and ballgame players (Chichen Itza Caracol e and Ballcourt Stone, Seibal Stela 7, figurine 7723, and ceramic rollout K2022)

To conclude, the administrative activities involved both genders, even if a higher number of men were depicted as performing the tasks. The civic activities required only men. Scarce evidence of women being sacrificed was discovered within the iconographical data.

9.5.2) From the burials and grave goods

From the burials and the grave goods placed with the dead individuals, it is possible to understand their social status and the function they might have had during their lives. For this, the author will investigate the artefacts recovered within the visited sites.

Political activities could be seen in burials through their elaboration and quality. Indeed, ruling elites were interred with various pieces of jewellery made of precious stones, such as jade. They could wear collars, necklaces, armbands, earplugs,

headdresses, and masks. The bones could be painted with cinnabar powder. The corpse had special funerary treatment. This means that the ruling elite, when they died, were placed on a mat covered with a jaguar pelt and, through cords, were placed in the tomb. Both genders could enjoy these treatments. The elaboration of jewellery and funerary practices could be seen in a few sites, such as Altun Ha, Palenque, Calakmul, Tikal, Yaxchilan, and Yaxha.

People involved in warfare during their lifetime could be buried with their armor and arms. If the individual died during a war, they might have a severe injury that could leave evidence on the bone; for example, a knife cut, broken bones, broken cranium, etc. This information about violence could be found in another civilisation. However, in the available sample from the author, no such evidence was recovered or known to her.

Ritual activities could be identified through the artefacts needed to realise the event. The most frequently found artefact in burials was the figurines. Every site had individuals interned with figurines or whistles. Other musical instruments were less common. For example, copper bells were found in Chichen Itza, Dzibilchaltun, and Lamanai. Men were associated with these grave goods. Turtle carapaces were discovered in Copan and Yaxuna, and a trumpet was found in Dzibilchaltun. These tools could have been linked to the men or a sacred space. For example, the trumpet was recovered within the Seven Doll Pyramid. In addition, stingray spines were probably tools used for the bloodletting ritual. They were discovered in grave goods pertaining to both genders in the sites of Altun Ha, Dzibilchaltun, Palenque, Uaxactun, and Yaxha. The other ritual discussed in this chapter was the enema. Bone tubes might have been the artefacts needed to inject the products. These tubes were found in male burials in Tonina and Lamanai. Moreover, other artefacts such as the incense burner, excentrics, and mirrors were associated with both genders as grave goods. Indeed, they were found in Altun Ha, Bonampak, Dzibanche, Labna, Lamanai, Yaxha, and Yaxuna with individuals identified as men or women. In some sites, there were grave goods composed of miniature metates. One of them was

discovered in Dzibanche, and it was associated with a woman's burial. This metate could maybe be used to prepare food for the gods.

The administrative and civic activities could also be analysed through the discovery of some artefacts needed for their realisation in association with some people as a grave good. Scribe and painter tools such as codices, pigments, mortar and pestle, bark beater, cincel, and stamps were needed. Many of these artefacts were found in burials with a skeleton of an undetermined sex, such as the stamp in Chichen Itza, the codex fragment in Uaxactun, the cincel in Mayapan, the bark beater in Labna, and the bark beater, pestle, and mortar in Copan. However, some sites were better preserved, and some of these artefacts could be assigned to a gender. In Altun Ha, a codex fragment and pigments were found in burials pertaining to both genders. In Aguateca, a mortar and pestle were found in a male burial. In Calakmul, bark beaters were discovered within male and female burials. A stamp that could be linked to a man's tool was found in Palenque. Moreover, the reception of individuals and meetings were probably done around some patolli games. These patolli game boards were discovered in Calakmul and Xunantunich. They were mainly male activities. In addition, the ballgame implements, such as the yoke, could be found in some burials. For example, in Palenque, one yoke was recovered in association with a male individual.

To conclude, from the funerary context, it could be identified that both genders could enjoy similar civic-ceremonial activities such as the ruling duties, bloodletting rituals, divination tasks, burning incense, scribal activities, and preparation of pigments and paper. However, some civic-ceremonial activities required only one gender to realise it. Men were involved in tasks such as playing music, practising enema rituals, doing the reception and meetings, and playing ball; meanwhile, women prepared food for the gods.

9.5.3) *From the ethnography*

From the ethnography, some activities are still practised by various people nowadays. The author will discuss the ballgame and the continuity of the traditional scribal activity. In a second time of analysis, the author will deal with the writings of the Spanish friars during their observation of the Maya civilisation during the Contact period.

The ethnographical work realised by the author was in a Maya community in San Martin Jilotepeque. There, she could enjoy the possibility of practicing the ballgame with the first women's ballgame team from Guatemala. Before playing, it is crucial to protect the body. A woven belt and leather pieces were fixed on the hips (Figure 145). These protections are needed because the ball is made of rubber and is heavy when it bounces on the hips. Because the ballgame is physical, it is preferable to have a good condition. Indeed, the player must be strong on his arms when he jumps on the floor to make the ball bounce on his hips and project it towards the front. The legs must be strong, too, because the players need to run from one end of the field to the other and jump to catch the ball. If the person has enough condition, it is better to start with a standard football ball to learn how to bounce it with the hips. This step was hard for the author at first, but after a few practices, it was possible to start to bounce the rubber ball. The rubber ball must be bounced on a special location on the hips. If not, the person will be hurt. The players must always be careful that the ball doesn't bounce on any other part of their body. Once the author assimilated this, she could participate in a game with the team. Before starting a game, the team gathers together in the middle of the field with the rubber ball. They make some prayers. After that, the game can start, and various rules need to be followed. For example, the ball comes into play from the exterior of the field, and once the ball reaches the other end of the field, the team makes a point. Arrows are put in the middle of the field in the air; if the ball passes inside the arrows, the team wins the game. For the author, the most difficult rule to follow was to bounce the ball on the floor without sitting on it. Indeed, to be able to bounce the ball, the hip must touch the ball at the right time, in a good location, and with a good speed to project the ball to the front. A lot more practice was needed for the

author. It was an interesting and funny experience for the author, even though her hips were hurting and blue from bouncing the rubber ball.

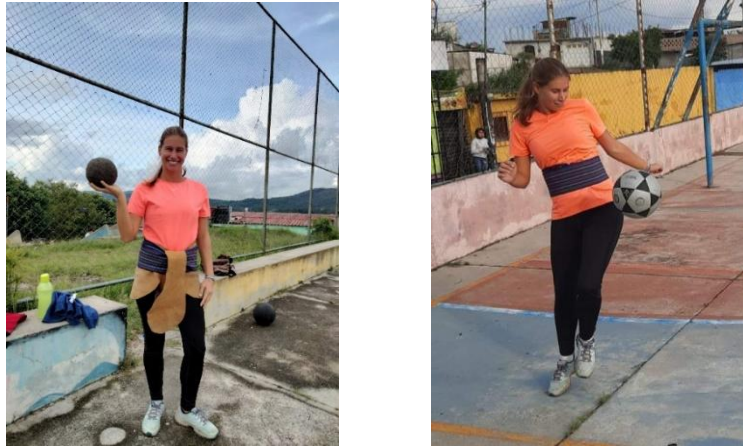


Figure 145: the author playing ball

During the author's stay in the Maya community, she observed that the Maya glyphs are still used nowadays. For example, the bilingual school Nim Na'oj made a mural in which the history of the school was written with glyphs as it could have been written in the past (Figure 146).



Figure 146: Mural of the school Nim Na'oj in Guatemala

Also, some people use glyphs or iconography to make art or recreate artefacts from the past. For example, for the posters of Maya conferences, glyphs and imagery were recreated to form a modern design with a traditional background (Figure 147).



Figure 147: Conference poster combining modern and traditional glyphs and imagery (Walter Paz Joj Poster 3-Pack — GoAFAR)

The ethnographies written by the Spanish friars during the Contact period contained testimonies and observations that are valuable for this investigation about the gendered activities related to civic-ceremonial tasks. The author will concentrate on writings by Diego de Landa, Francisco Hernandez de Cordoba, Pedro de Alvarado, Bartolome de las Casas, Bernardino de Sahagun, and the Maya Codices. The work by Sahagun dealt more with the Aztecs than the Mayans, but these books are precise and illustrated. It is taken here as an analogical source.

Few political activities were described in the ethnographies due to the collapse of the ruling elites and their organisational system. Bartolome de Las Casas wrote that, as in every culture, rich and ruling people were needed (las Casas 1957: 155). The ruling elite were living in palaces where they were responsible for various duties for the good functioning of the city (Landa 1959: 41). From Sahagun, we know that the palaces were composed of multiple rooms for criminals, meetings, nobles, tributes, and servants (Sahagun 1577: Book 8 25v). Moreover, the right to rule passed from men to men (Landa 1959: 48). The rule of the primogeniture needed for choosing the next ruler between men from the same generation was evidenced by Pedro de Alvarado and Diego de Landa (Garcia Anoveros 1987: 46; Landa 1959: 48). Diego de Landa also observed that the Maya found it incest to marry a person with the same name or coming from the same family (Landa 1959: 48).

Warfare was a theme that was discussed by all the Spanish friars. For Bartolome de las Casas, every civilisation needed warriors (las Casas 1957: 155). Fighting in the war was done only by men (commoners and elites) (Sahagun 1577: Book 1 39v; Sahagun 1577: Book 8 38r). Many warriors were depicted in the Dresden and Florentine Codices (Annex 5.3.1 and Annex 5.3.2) (Figure 148). However, Bartolome de las Casas noticed that women might also have participated in warfare defending their land (las Casas 1957: 221). The warriors wore armors made from cotton or feathers (De Cordoba 1942: 4; Landa 1959: 59; Garcia Anoveros 1987: 49). The arms used by the Maya were bow, arrow, shield, spear, knives, and stones (De Cordoba 1942: 60; Landa 1959: 59; Garcia Anoveros 1987: 49). However, all the men involved in warfare could use their own arms that could be the artefacts required for their daily activities because they might have had more abilities to use them as other type of arms (las Casas 1957: 221). In addition, side activities were required for the good execution of the war. Bartolome de las Casas mentioned that a messenger was needed to probably investigate about the enemies, and he would transmit the information to the council of war. This council of war was composed of warriors, ruling elites, and elderly women who heard and saw many things during their lives (las Casas 1957: 222f.; Whitlock 1976: 80). In the Florentine Codex, various illustrations showed women as interprets and warner for attacks (Sahagun 1577: Book 12 42v).



Figure 148: Example of a warrior and captive scene from the Dresden Codex (Taladoire 2012: 193)

Civic-ceremonial activities were the primary interest of the Spanish friars. Priests were involved in various tasks such as taking care of the temples, burning copal in incense burner or brazier, organise rituals, making offerings to the gods, and enact sacrifices (las Casas 1957 17f.; De Cordoba 1942: 62; Landa 1959: 56; Taladoire 2012: 45, 82, 96, 99, 150f., 159) (Annex 5.3.5 and Annex 5.3.6) (Figure 149).



Figure 149: Example of ceremonies and offerings from the Madrid and Dresden Codices (Taladoire 2012: 82 and 150)

Some priests also had the ability to do divination and predict the future (las Casas 1957: 278f.). The sacrifices, as they were depicted in the Florentine Codex, were realised by men (Annex 5.3.4). Diego de Landa evoked that women were useful in rituals for the service or for their help in the realisation of them (Landa 1959: 44f.). In general, men were mostly responsible for the realisation of activities in the sacred places (Sahagun 1577: Book 2 135v). However, only elderly women were allowed in sacred places (Landa 1959: 66). In addition, whistles, shell trumpets, and drums were music instruments used for the enactment of rituals (De Cordoba 1942: 63). From the Florentine Codex it could be seen that some rituals needed musicians and singers mainly pertaining to the men gender (Annex 5.3.3) (Sahagun 1577: Book 8 32r). Men and elderly women could perform dances during rituals (Sahagun 1577: Book 2 6r; Landa 1959: 74). Furthermore, Bartolome de las Casas noticed that non-married men were living together in a big communal house called the men's house, where they had to make offerings to the gods and serve them. He also observed that virgin women were living together in what could have been a women's house where they had to weave for the rituals and gods and to serve in the temples (las Casas 1957: 24; Whitlock 1976: 89). Various Spanish friars were noticing the practise of some rituals such as bloodlettings and enema (Landa 1959: 57; las Casas 1957: 225). Their view of the events was not objective, and they selected their words to discriminate against the beliefs of the Maya. For example, the word idolatry or the scene in which people drink alcohol and get drunk in public were events that the Spanish friar denounced (Landa 1959: 37).

The ethnographers briefly mentioned administrative and civic activities. The ruling elite planned ballgame events and played ball (Landa 1959: 61; las Casas 1957: 204f.; Sahagun 1577: Book 8 18r and 42v) (Figure 150). After the game, some sacrifices could take place. The Florentine Codex illustrated some (Annex 5.3.3). Moreover, all the friars observed that people had a scribe and painter function (las Casas 1957: 204f.; Landa 1959: 16; Sahagun 1577: Book 10 18v). The ruling elites were meeting many high-status people from other cities. They could talk about diplomatic affairs while playing patolli. This game was mentioned by Sahagun (Sahagun 1577: Book 8 18v).



Figure 150: Ballgame iconography from the Florentine Codex Book 8 42v

To conclude, from the ethnography, we could analyse that the rulers were men. However, women could rule as part of the exception. During the warfare, the men were fighting. Few women could also fight to defend their land. The messengers sent before the war were men. Women followed the warriors to prepare them food (Whitlock 1976: 69). The council of war that made the decisions about the strategies was composed of men, warriors, and elderly women. The civic-ceremonial activities were realised by one gender or both. For example, both genders were making offerings, practising rituals, making divination, and dancing. Men also performed rituals in the temples and played music; meanwhile, women performed some services for the temples, preparing food and weaving for the gods. The administrative activities, such as scribe and painter, were done by both genders. Men were playing patolli while meeting other ruling elites. They could also play the ballgame. However, nowadays, we can identify that women could also be ballgame players.

9.6) Chapter summary

This chapter dealt with the civic-ceremonial activities present in the Maya civilisation and how to understand which gender was involved with which task. For this, various sources such as iconography, epigraphy, funerary context, and ethnography were analysed and compared.

The political activities consisted mostly of the ruling task. This could have been done by both genders, even if men were majoritarian. From the epigraphy and iconography, it could be studied. The dynastic lines could be evidence of how the right to rule passed from one ruler to another and how the political system might have worked. The women were seen as mothers, sisters, or wives and played a role in political activities as a diplomatic tool to strengthen the dynasty or to legitimate the right to rule. Ruling elites could be identified through the funerary context due to the amount of jewellery, cinnabar, and special funerary treatment they could enjoy. Osteologically, the bones of the ruling elite were not as altered as those of others. This could mean that their function was not based on a hard-working task.

Warfare was represented in the epigraphy and iconography as a man's world. Indeed, they were fighting and depicted in armor. However, women could enjoy war titles similar to men's, and they could fight and protect their land. The humiliation of captives could be realised by both genders. The captives were almost exclusively men, except for the representation of a captive woman from Tonina. From the ethnography, it is known that women helped men during the war. For example, they prepared food for the warriors. The council of war sent messengers to observe the enemy. The council of war was composed of men and elderly women. From the funerary context, it could be possible to identify the warriors through the presence of arms as grave goods or through the injuries the skeleton could have sustained from the war.

The ceremonial activities were enacted by one or two genders. Women were less present in sacred places due to their nature. Indeed, menstruating women were seen as a threat to the well-execution of the rituals. Therefore, probably only men and elderly women had access to sacred places. From the epigraphy, funerary context, and iconography, it could be deduced that both genders made offerings to the gods by burning incense. Priesthood could be a function realised by both genders. Men's and women's houses were probably present as communal houses for unmarried men and virgin women to serve the gods and take care of the temples. Both genders enacted rituals. For example, women were depicted while practising the bloodletting and vision serpent rituals. However, bloodletting artefacts were recovered as grave goods in men's and women's burials. Women could have been responsible for the spiritual realm, and men for the terrestrial realm. Women could be helpers and preparers for the rituals made only by men, such as the enema, the recreation of myth, or the preparation of bundles. Bone tubes for the enema ritual were possibly only discovered in association with men's burials. Moreover, both genders could be involved in dances, but men were responsible for playing musical instruments, as they could be found in their tombs or in the iconography. Miniature metates were recovered next to the sacred places. They could have been used for the food preparation of the gods. Probably women were responsible for this task.

The administrative and civic activities could be identified in the iconography, epigraphy, and funerary context. Mostly men had the function of scribe, painter, or sculptor. However, women could enjoy a similar function. Indeed, they were depicted as such or were interned with the scribal implements, for example. The iconography evidenced the ballgame players as exclusively a male activity. Women could have been spectators. From the ethnography, it was identified that women could also be ballgame players.

The following tables (Figures 151-154) summarise which activity related to civic-ceremonial activities was linked to which gender.

Activity	Gender			Sources				
	Men	Women	Both	Iconography	Epigraphy	Funerary context	Ethnography	Osteology
Rulership			X	X	X	X		X
Legitimation to rule			X		X		X	
Diplomatic tool		X		X	X			

Figure 151: Table showing the activities and genders involved in political activities

Activity	Gender			Sources				
	Men	Women	Both	Iconography	Epigraphy	Funerary context	Ethnography	Osteology
Warrior	X			X	X	X	X	X
Fighter			X	X			X	
Food preparation		X					X	
Messenger	X						X	
Council of war			X				X	
Humiliation of captive			X	X	X			
Captive			X	X				
Helpers in war		X		X				

Figure 152: Table showing the activities and genders involved in warfare

Activity	Gender			Sources			
	Men	Women	Both	Iconography	Epigraphy	Funerary context	Ethnography
Offerings			X	X			X
Bloodletting			X	X		X	
Enema	X			X		X	
Vision serpent		X		X			
Recreation of myth			X	X			
Priesthood			X	X	X		
Sacrifices	X			X			X
Divination			X	X		X	
Ritual helper/object holder		X		X			
Musician	X			X		X	
Dancer			X	X			
Food preparation		X				X	

Figure 153: Table showing the activities and genders involved in ceremonial activities

Activity	Gender			Sources		
	Men	Women	Both	Iconography	Epigraphy	Funerary context
Scribe			X	X	X	X
Painter			X	X	X	X
Sculptor			X	X	X	X
Ballgame player	X			X	X	X
Ballgame spectator			X	X		

Figure 154: Table showing the activities and genders involved in administrative and civic activities

10) Interpretation

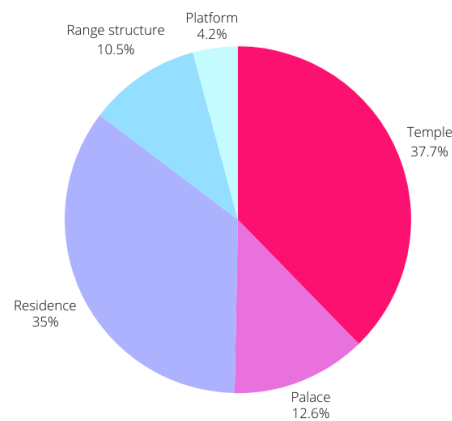
This chapter will interpret the information discussed in Sections 1 to 3. Here, the aim will be to understand how the architecture, artefacts, and activities could give some hints about the gendered space. For this, four different spheres will be considered: the political, ceremonial, civic, and residential. For each space, a statistical analysis will be done. The objective will be to determine if specific structure types were present in that space. Which artefacts could be found? Which activities could have been realised with these artefacts? Which gender was more evolving there? Finally, the sites visited by the author will be used to create maps of the gendered spaces and to analyse them to find where women and men mostly evolved in the cities.

10.1) Political space

The political space was mainly located in the core area of the cities. From Section 1 of this doctoral dissertation, we identified that the palaces and council houses could have been structures in which political activities might have taken place. Palaces were seen as residences for the ruling elite and housed other activities due to the number of rooms available. The council houses were believed to have been a place for meetings where important people of the community met to make decisions. From Sections 2 and 3, it was possible to ascribe some activities and artefacts to the palaces and council houses.

On the one hand, the palaces were structures in which many iconographies and epigraphy were present. They depicted men and women as rulers. The data recollected by the author shows that 86% of men and 14% of women are in a ruling function (Annex 4.6). Moreover, women were taken as a diplomatic tool to strengthen the dynasty's power and legitimise the right to rule. From the few dynastic lines that could be deciphered and reconstructed, 66 women (of 267 individuals listed) could have played an important role in the continuity of the dynasty (Figures 16-29, Grube et al. 2008; Marcus 1987; Garza et al. 2012;

Robertson 1985; archive INAH; archive Campeche, Guenter 2014). Iconographically, this theme was seen in a few cities, such as Palenque (Oval Palace Tablet) and Copan (Altar Q), representing only a small percentage. From the grave goods, the ruling elite could be identified from the commoners. For example, the location of their internment was centrally in big and elaborate structures such as temples, palaces, stone residences, range structures, and platforms. Through the visited sites, it could be analysed that 54 internments were placed in temples, 18 in palaces, 50 in stone residences, 15 in range structures (structures whose function was neither identified as palatial nor residential), and six on platforms (Figure 155) (Annex 4.5).



Location of burials

Figure 155: Graph showing the location of burials

The histogram (Figure 156) shows that burials were mainly located in ceremonial and residential structures, with almost 1000 evidence of burials recovered. Within ceremonial structures, the more significant number of burials (500) pertain to mixed burials (male and female individuals interned in the same structure). Around 250 burials pertained to adults whose sex couldn't be determined due to poor preservation. The number of male burials is around 150, and the female burials is around 50. Both males and females were interned in ceremonial structures, but the number of males is slightly higher than that of females.

The residential structures were mostly the location of mixed and adult burials of undetermined sex, with over 750 burials. Male and female burials in this type of structure were almost equal (around 100).

The political structures housed mainly mixed burials (more than 125). Around 125 burials pertained to adult burials of undetermined sex. Only a few male and female burials were discovered. The number of female burials is slightly higher than that of males.

The open spaces were the location of 130 burials; 100 pertained to adult burials of undetermined sex, 25 to mixed burials, and 5 to males. No female burial was found in this type of structure.

The civic structures had the lowest number of burials (fewer than 50). Only adult burials of undetermined sex and mixed burials were found in equal numbers (25 of each category).

To conclude, most burials were found in ceremonial and residential structures. Male burials were mostly present in ceremonial structures, and female burials in political ones. Mixed burials were seen in higher amounts in ceremonial structures. Adult burials of undetermined sex were mainly recovered from residential structures.

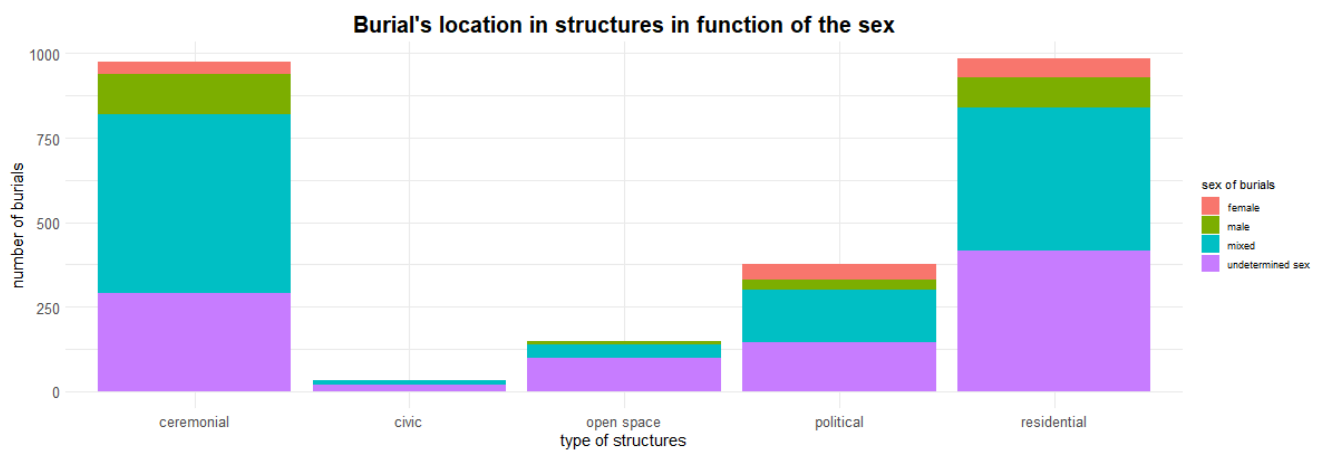


Figure 156: Histogram showing the location of burials in structures in function of the sexes

The realisation of the CA depends on the χ^2 and p-value. Here, the χ^2 is 515.21, and the p value equals 2.2e-16. The p-value is inferior to 0.05, meaning the results are not linked randomly. However, the CA is not adapted to this situation. A contingency table will be realised instead.

From the contingency table (Figure 157), it can be inferred that female burials were more present in political structures, while male burials predominated in residential and ceremonial contexts, as well as in open spaces. The mixed burials, including male and female individuals, were majoritarian in every type of structure, with a peak in residential and ceremonial structures. The data indicates that no specific burial location can be assigned to a particular gender.

	Political	Ceremonial	Civic	Residential	Open space	Total
Male	30	118	0	88	9	245
Female	47	35	0	54	0	136
Mixed	155	530	12	423	38	1158
Total	232	683	12	565	47	1539

Figure 157: Contingency table of the burial's location in structures in function of the sexes

The elite could also enjoy better funeral treatment. Some corpses were wrapped in bundles, placed on mats, or covered with jaguar pelt or cinnabar. In addition, the ruling elite was ornamented with jewellery made of precious stones and shells. Through the data of the excavation reports present in the funerary context of the archaeological sites under study (Figure 158), the most worn ornaments found were beads (175), collars (40), earplugs (60), jade items (30), pendants (45), plaques (35), rings (25), and shells (90). Female burials were associated with beads, collars, coral, earplugs, gold, jade, jaguar pelts, masks, ornaments, pearls, plaques, rings, shells, and textile fragments. Male burials were linked to animal teeth, beads, bezotes, cinnabar, collars, corals, earplugs, gold, jade, jaguar pelts, masks, mosaics, noseplugs, ornaments, pectorals, pendants, plaques, rings, shells, and textile fragments. From the data, ornaments reserved for males could be animal teeth, bezote, cinnabar, noseplugs, and pendants, while females could wear, in the majority, pearls.

A large number of ornaments were recovered in mixed and adult burials of undetermined sex. The infants did not play a role in the statistics due to their lack of gender in society. In some cases, more than one sex was found in a burial. The ornaments found in this situation were ascribed to all the sexes present, which could bias the exact end results of the statistics. However, due to the few appearances of this situation, the graph is still relevant for this study.

In conclusion, most ornaments could be worn by both genders. Only a few were primarily worn by male individuals, such as animal teeth, bezote, pectoral, and noseplug, while pearls were more worn by female individuals.

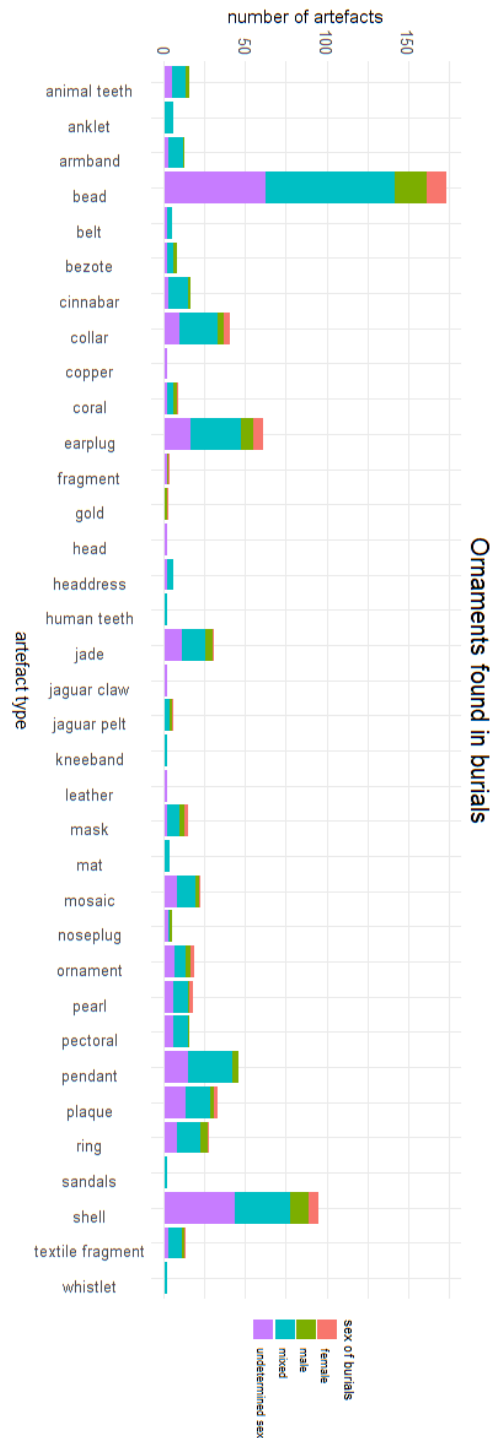


Figure 158: Histogram showing the ornaments worn by the different sexes from the funerary context

The next step would be to understand if a CA can be elaborated. For this, a χ^2 test is needed. The result of the χ^2 test is 1086.2, and the p-value is 1.887e-9. The p-value is inferior to 0.05, suggesting that the data is not linked randomly. A CA can be performed.

The CA (Figure 159) indicates that most ornaments are clustered centrally alongside the mixed burials. There are no significant ornaments detached in male and female burials. However, noseplugs and bezotes are associated with male individuals.

In conclusion, ornaments discovered in burials are not gender-specific, except for the noseplug and bezote, which are associated with masculine attire.

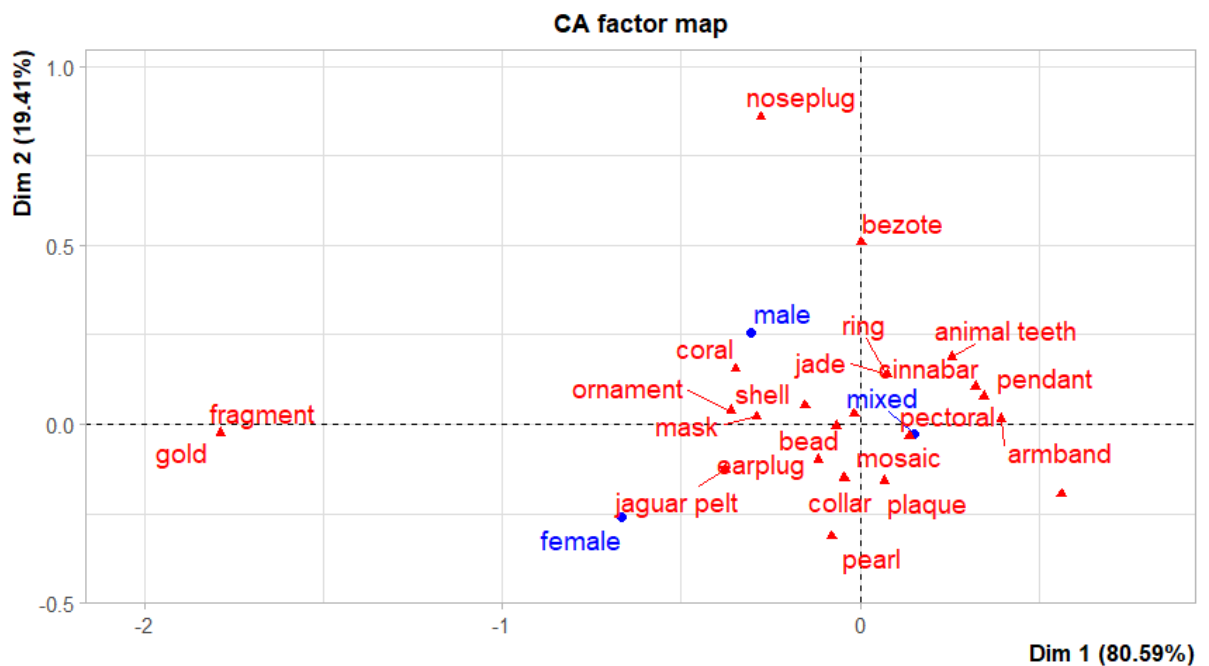


Figure 159: CA of the ornaments worn by the different sexes from the funerary context

If we combine the numbers of ornaments depicted in the iconography (see Figure 91; Annex 4.1 to 4.4) and from the funerary context (the data from the excavation reports) (Figure 158; Annex 4.5), the following table can be made (Figure 160).

Attributes	Amount								
Gender	male 546		female 173		adult 94		infant 50	multiple characters 136	
Ornament as jewellery	earplug 669	collar 729	headdress 648	ring 15	armband 495	noseplug 181	anklet 249	sandals 222	belt 384
Ornament as clothing	huipil 106	sash and skirt 8	skirt 52	loincloth 487	sarong 50	armor 56	naked 40	ballgame implement 11	

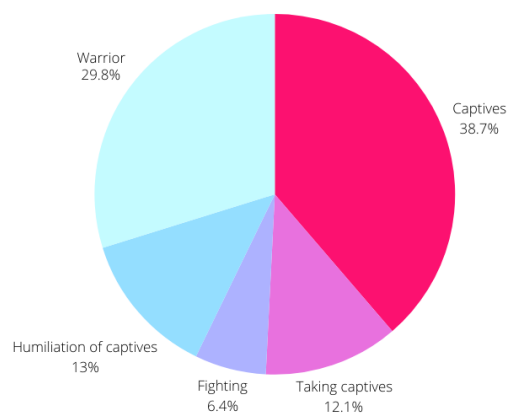
Figure 160: Table combining the ornaments from the iconography and funerary context

From the table, it could be deduced that mostly men were found (546 men representing 54.6%) and depicted wearing loincloths in 487 of the cases (60.1%). Only in rare cases were they seen with armor (56 depictions representing 6.9%), naked (40 times representing 4.9%), or with the ballgame implement (eleven depictions representing 1.4%). Women were less present (173 women representing 17.3%). 106 wore a huipil (13.1%), eight wore a sash and skirt (1%), 52 a skirt (6.4%), and 50 a sarong (6.2%). The jewellery mainly used was the collar (729 times representing 20.3%), earplug (669 times representing 18.6%), and headdress (648 times representing 18%). Some representations or burials recovered people with armbands in 495 cases (13.8%), belts in 384 cases (10.7%), anklets in 249 cases (6.9%), and sandals in 222 cases (6.2%). Both genders could wear the same ornaments. However, 181 noseplugs (5.1%) and 15 rings (0.4%) were more often seen in male individuals.

To conclude, from the different analysis types, it can be said that both genders wore the same types of ornaments, such as collars, earplugs, and headdresses. Male individuals were more often seen with loincloths, armor, naked, and ballgame implements. The jewellery that could be linked to the male attire is animal teeth, bezote, noseplug, ring, and pectoral. For female individuals, they wore mainly huipil, sarong, sash and skirt, and skirt. The jewellery linked to the female attire is pearls.

On the other hand, the council houses were places where decisions were taken by the ruling elite, the military head people, and elderly women. According to the colonial sources, warfare was one important topic that could possibly have been discussed there. Indeed, before declaring war and engaging in fights, the council sent messengers (probably men) to watch the enemy. They should give feedback to the council to elaborate on a strategy to win the war and take captives (las Casas 1957, Sahagun 1577, and Whitlock 1976). Warfare and captive imagery were present in every site under study. In total, it can be said that the iconography related to warfare was high (Annex 4.1 to 4.4). Warriors were almost exclusively men. Iconographically, from the corpus, 38 representations depicted warriors (people in armor and with arms), eight scenes depicted battle scenes (people involved in a fight), and 15 images of men taking captives were found (a person taking a captive

by the hair). However, both genders could have been seen as rulers humiliating captives and trembling them. 16 scenes showed rulers humiliating captives (royal elites standing over captives). It represented 69% of men and 31% of women (Figure 161). Both genders could also enjoy similar war titles. In most cases, the captives depicted were men (47 representations), except for a few exceptions, such as in Tonina the Monument 99, which depicted a female captive. The captive's imagery taken into account here is all the depictions of people with ropes on their bodies that appeared alone, without any other type of context of humiliation or fight.



Warfare imagery topics

Figure 161: Graph showing the warfare imagery topics

From the histogram (Figure 162), it can be seen that men were the only ones to take captives (15 depictions). Men were also majoritarian in warfare topics such as captives (46 cases of men, two of women), fighting (7 are men, one is a woman), and warriors (37 cases are men, one is a woman). The humiliation of captives is the only topic in which fewer gender differences appear. Indeed, eleven men and five women were represented in such scenes.

To conclude, women are underrepresented in scenes related to warfare. However, they are not absent from such scenes. Only a few depictions have been recovered in which they appear as fighters, captives, or warriors. It's possible that more depictions existed but have not yet been recovered or preserved. Until now, warfare

has been depicted as a man's world. The humiliation of captives was the only sphere of action in which gendered differences were low.

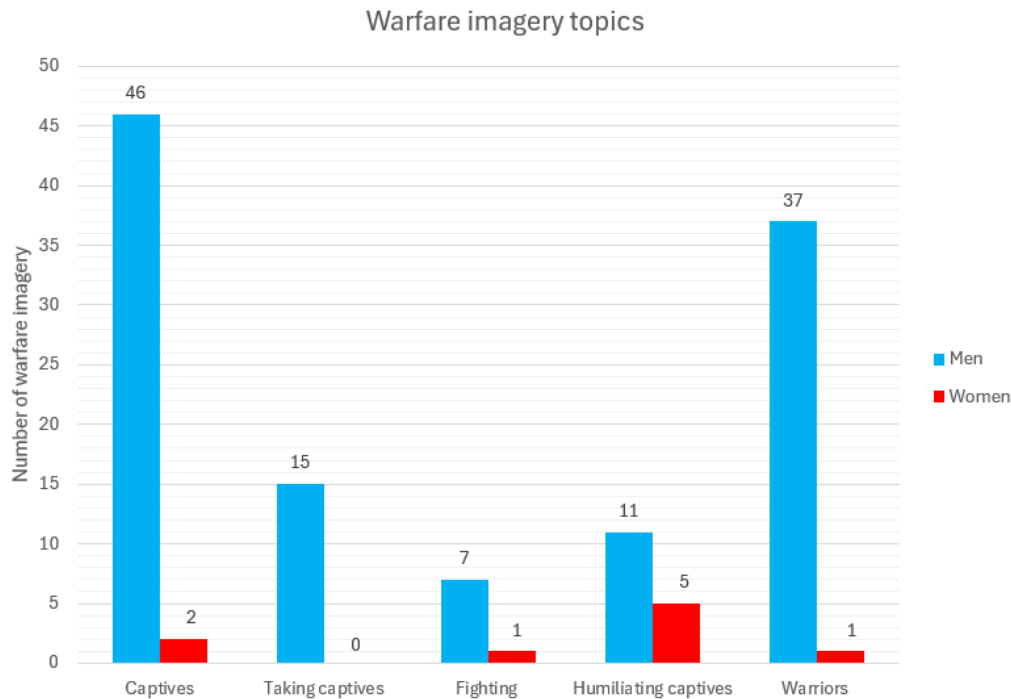
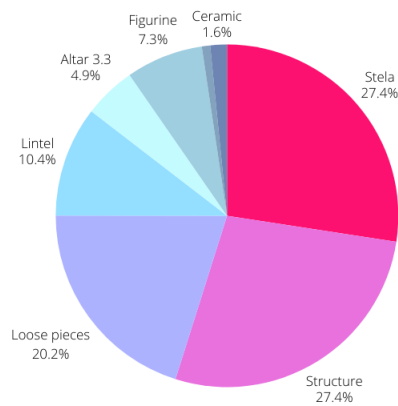


Figure 162: Histogram showing the gendered activities in warfare

A χ^2 test is needed to identify whether or not the data is linked randomly. The χ^2 is 16.541, and the p-value is 0.0024. The p-value being inferior to 0.05, a CA can be realised. However, the CA is not needed in this case because only two categories are analysed.

The warfare imagery was located in buildings used by the ruling elite or civic places where people from the community or other cities could see them (Parmington 2011, Zalaquett 2015, Morton 2007, and Schele et al. 1998). It could be used as propaganda to show the strength of the ruling elite and that the enemy might fear them and not plan any attack. From the sample (Annex 4.1 to 4.4), 34 images were seen on a stela, 34 on structures (doorjamb or steps), 25 were pieces (miscellaneous stone), 13 on lintels, four on altars, nine were figurines, one on mural, and two on ceramics (Figure 163).



Warfare imagery media

Figure 163: Graph showing the warfare imagery media

From the histogram (Figure 164), it can be noticed that men depicted in warfare scenes were mainly found on structures (34), stelae (27), and sculpture pieces (24). In a lower amount, they were represented on lintels (eleven), figurines (eight), altars (four), ceramics (two), and murals (one). Women related to warfare scenes were depicted on stelae (seven) and in smaller numbers on sculpture pieces (one), figurines (one), and ceramics (one).

In conclusion, men in warfare imagery were more frequently depicted across various media than women. Men engaged in warfare were more commonly represented in public and non-portable media (such as stelae and structures), whereas women were depicted in both public and private forms of media (including stelae and figurines).

Political spaces could be seen as semi-private locations. Indeed, they were accessible and reserved for the higher classes of the community. However, their deeds and actions could be placed in public and open spaces to be seen by the majority of people.

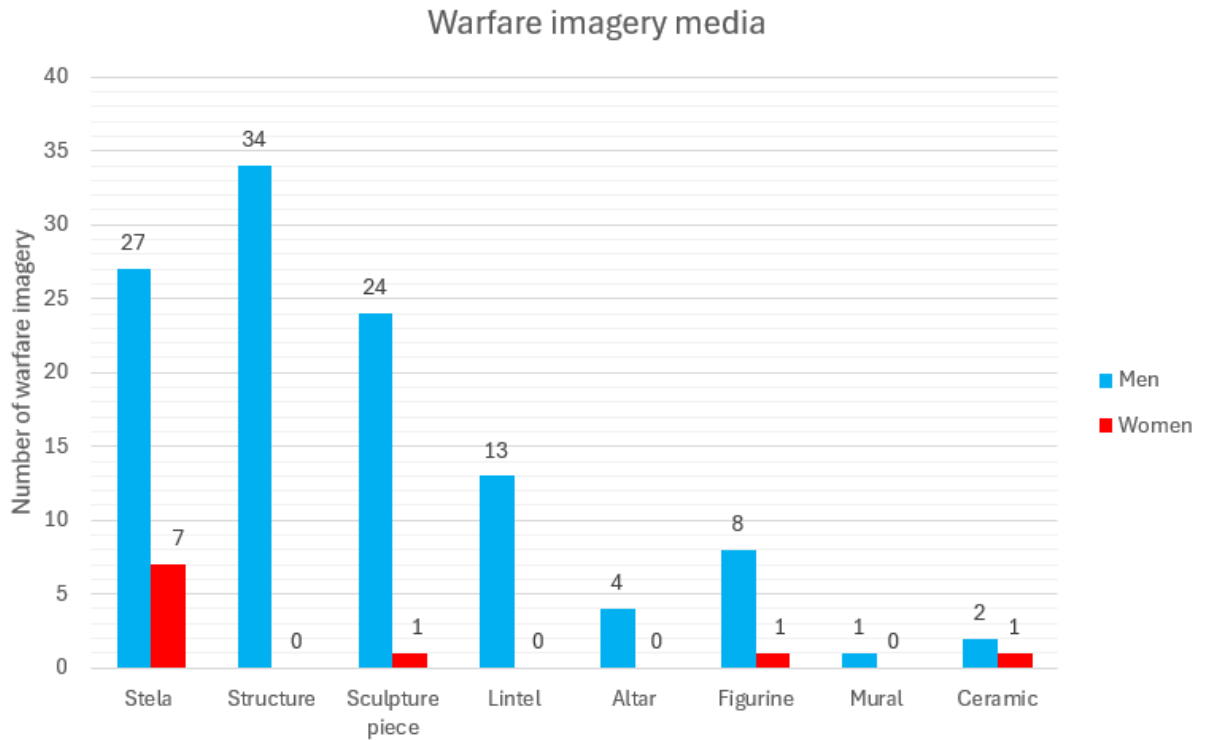


Figure 164: Histogram showing the gendered appearances in warfare imagery on the various media

The next step is to realise a χ^2 test. The result is 15.142, and the p-value is 0.034. After the test results, it is possible to elaborate a CA because the data is not linked randomly. However, the CA is superficial in this case because only two categories are analysed.

Moreover, some knowledge could be added from the ethnography and funerary context. After the Spanish friars, it is said that women went along with the warriors to war to help them with their preparation to wear the armor, to wish them good luck, or to prepare their food (las Casas 1957 and Sahagun 1577). Iconographically, some scenes depicted women as warrior helpers, such as the Lintel 26, Lintel 41, and Lintel 43 from Yaxchilan and the ceramic K2695 (Annex 4.1 to 4.4). Furthermore, warriors within their grave goods assemblage could have weapons such as knives, spears, or arrows. Knives, points, and bifaces could be used as multifunctional tools. Therefore, if only a knife, point, or biface was discovered, it might not be enough evidence to ascribe the function of a warrior to the dead person.

From the visited sites, a few artefacts could pertain to the weaponry (spear, point, ax, biface, knife, stone ball, and dagger) (Annex 4.5). The histogram (Figure 165) indicates that most warfare tools are located in ceremonial and residential structures. Researchers discovered five axes, two bifaces, one blade, one dagger, ten knives, and seven points in the ceremonial structures. In residential structures, one arrowhead, twelve axes, six bifaces, seven knives, and ten points were recovered. Civic structures yielded two axes, one biface, eight knives, thirteen points, and one spear. Two axes, four knives, five points, and one stone ball were found in political structures. Six axes, one biface, seven knives, and six points were recorded in open spaces.

In conclusion, the most used warfare tools were axes, knives, points, and bifaces, located in residential and ceremonial structures. Even if their purpose could have been multifunctional, daily-use tools might also serve as weapons.

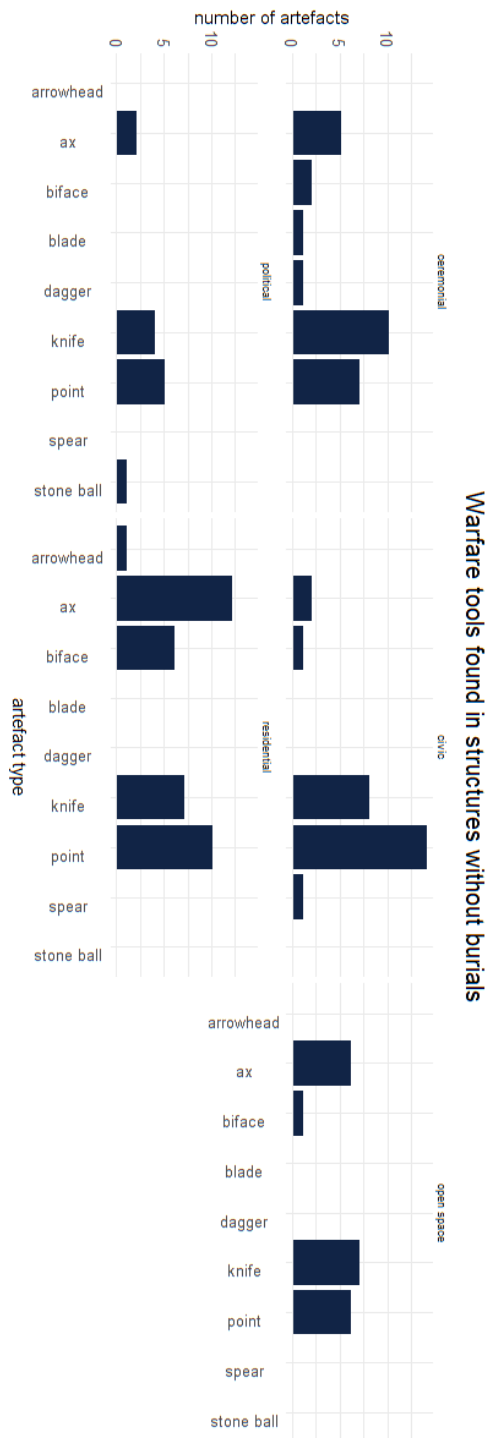


Figure 165: Histogram showing warfare tools found in structures without burials

A further analysis can be done, such as the χ^2 test. The χ^2 equals 130.09, and the p-value is inferior to 0.05, which is equal to $3.009e-6$. The data is not linked randomly, and a CA can be elaborated.

The CA (Figure 166) suggests that there is no clear spatial division of warfare tools. Blades and daggers were more commonly used in ceremonial structures. In contrast, arrowheads and bifaces were found in residential structures, and stone balls and spears were more associated with civic-political structures. Axes, points, and knives were multifunctional tools utilised across different structure types. Moreover, political, civic, and residential structures are opposed to ceremonial structures. Also, residential structures are opposed to political and civic structures. Therefore, three clusters can be seen.

To conclude, warfare tools were found in every type of structure. Some tools could be multifunctional and had not only a purpose in warfare. In this case, the artefacts were found in every structure type. Others, such as dagger, blade, arrowhead, biface, stone ball, and spear, were more commonly discovered in a specific structure (respectively ceremonial, residential, and political structures).

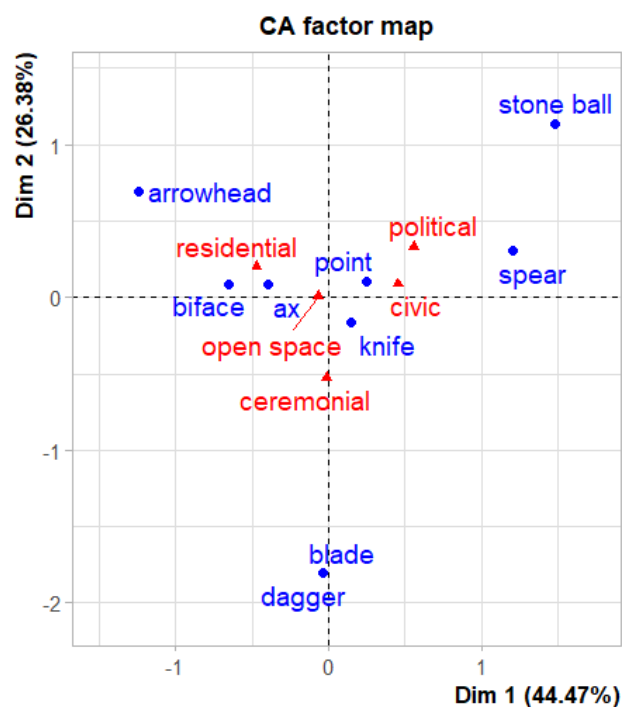


Figure 166: CA of warfare tools found in structures without burials

The histogram (Figure 167) reveals that warfare tools were associated with grave goods assemblages, mainly in residential, ceremonial, and political structures.

Knives, points, axes, and bifaces were the most common. In the residential structures, twelve axes (one from female burials, three from mixed burials, and eight from adult burials of undetermined sex), eleven bifaces (two from female burials, three from adult burials of undetermined sex, and six from mixed burials), thirteen knives (six from adult burials of undetermined sex, one from female burials, two from mixed burials, and four from male burials), and 20 points (ten from adult burials of undetermined sex, five from mixed burials, two from male burials, and three from female burials) were recovered. Additionally, one biface (from an adult burial of undetermined sex), two knives (one from a mixed burial and one from an adult burial of undetermined sex), and two points (from adult burials of undetermined sex) were found in civic structures.

In the ceremonial structures, nine axes (one from male burials, three from adult burials of undetermined sex, and five from mixed burials), six bifaces (one from male burials, one from mixed burials, and four from adult burials of undetermined sex), one bipoint (from a mixed burial), one spear (from an adult burial of undetermined sex), 25 points (one from a female burial, four from male burials, nine from adult burials of undetermined sex, and nine from mixed burials), and 22 knives (two from male burials, ten from adult burials of undetermined sex, and ten from mixed burials) were discovered. Three axes (from adult burials of undetermined sex), one blade (from mixed burial), two bifaces (one from an adult burial of undetermined sex and one from a mixed burial), three knives (one from a mixed burial and two from adult burials of undetermined sex), and ten points (one from a male burial, one from a mixed burial, and eight from adult burials of undetermined sex) were recovered from open spaces.

In the political structures, six axes (three from mixed burials and three from adult burials of undetermined sex), two bifaces (one from a mixed burial and one from a female burial), ten knives (one from a female burial, one from a male burial, four from mixed burials, and four from adult burials of undetermined sex), and eleven points (one from a female burial, one from a male burial, five from adult burials of undetermined sex, and four from mixed burials) were discovered.

In conclusion, warfare tools were more commonly found in residential, ceremonial, and political structures that housed burials. Bifaces may have been somewhat more

associated with female burials, while knives were more closely linked to male burials.

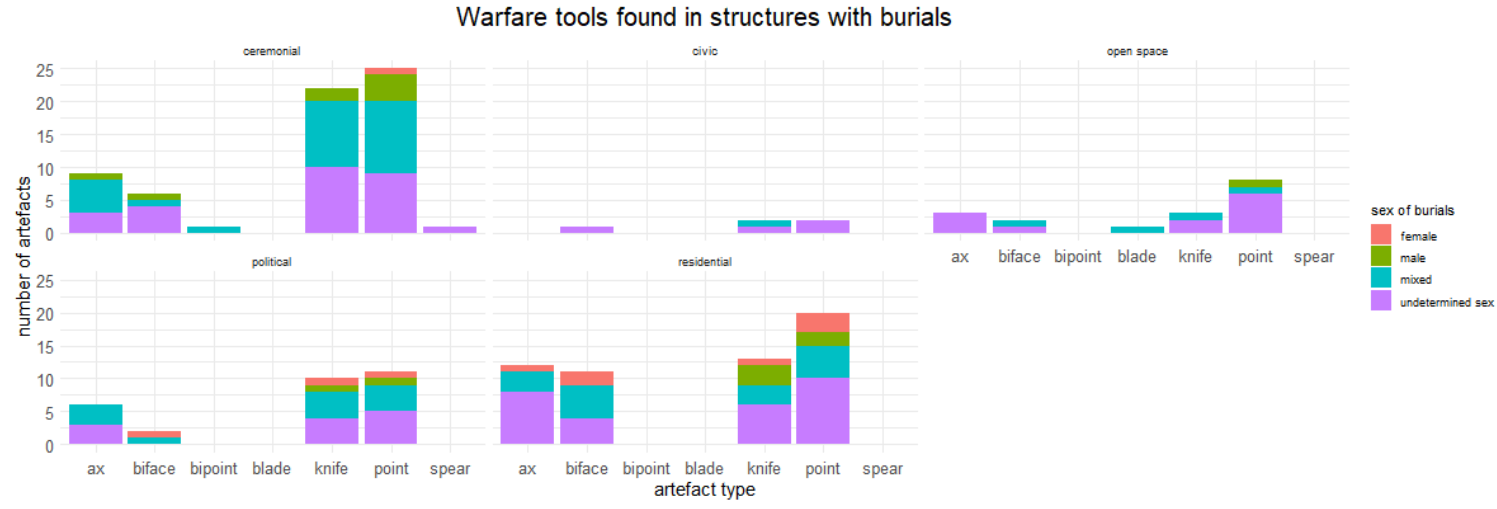


Figure 167: Histogram of warfare tools found in structures with burials

A χ^2 test can be realised. The result is 100.65, and the p-value is 6.057e-5. The data is not linked randomly, and a CA can be performed.

The CA (Figure 168) illustrates that female burials may have contained more bifaces, while male burials included more points or knives. Axes, blades, and bipoins were more frequently found in mixed burials.

In conclusion, warfare tools were not limited to a specific gender. Most of them could have been used by both genders. Only bifaces may have been more frequently found in the hands of women.

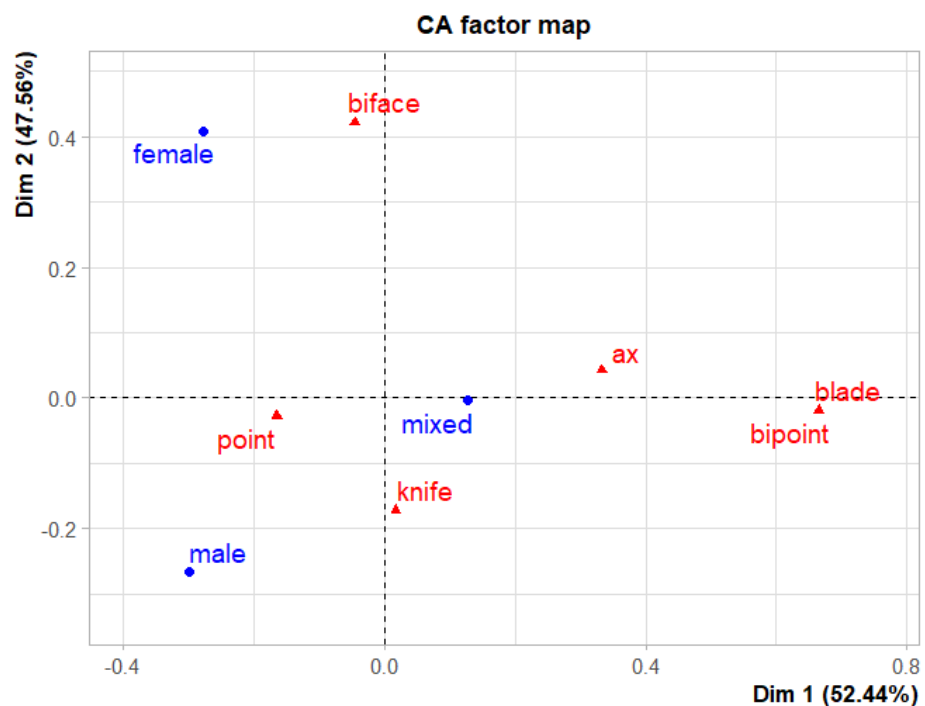


Figure 168: CA of warfare tools found in structures with burials

To conclude, we can assume that the political space was associated with the palaces and council houses where activities were practised by both genders. Even if the men were mostly present, women had an important role to play. They could be seen as rulers, rulers humiliating captives, who were interned in temples and residences, and could have weapons or multifunctional tools (knives, points, and bifaces) in their grave goods assemblages. From the ornaments, both genders could wear the same ones. Men wore more jewellery than women and noseplugs. In terms

of clothing, both genders of the royal elites wore similar clothes. Esther Parpal Cabanes and the author agree on the fact that the gender of the royal elites was complex to differentiate iconographically. It can be noticed that, for the rulership, gender was not as important as the role people played (Parpal Cabanes 2021).

The following table summarises what could be expected from political spaces. Here, the aim is to understand what are the main features and characteristics of them, such as the type of sites it appears, their location within the sites, the structures that had a political function, the types of artefacts mostly found there, the presence of burials, the gendered activities occurring there and finally the type of sources from which the information was taken.

	Political space			
Type of sites	All sites (more present in primary sites and less in small settlements)			
Location within sites	Core area			
Type of structure	Palace, council house			
Type of artefacts	Lithic : -Point -Metate -Blade -Mano -Biface	Ceramic : -Vase -Figurine -Incense burner -Cup -Plate	Bone and perishable : -Animal bone and teeth	Jade and shell : -Earplug -Necklace -Ring -Mask
Presence of burials	Yes (a few)			
Activities and gender	Men : -Warrior -Messenger	Women : -Diplomatic tool -Food preparation for warriors -Warrior helpers	Both genders : -Rulership -Legitimisation of the right to rule -Fighter -Council of war -Humiliation of captives -Captives	
Sources	Iconography, epigraphy, funerary context, ethnography, osteology			

Figure 169: Table resuming the political space characteristics and features

10.2) Ceremonial space

The next space to deal with is the ceremonial space. From Section 1 of this doctoral dissertation, it could be supposed that the ceremonial space was located in the core area of the cities. It could manifest through imposing architecture, such as the temples. Temples were the places to worship the gods and/ or ancestors. They were located near big open spaces to enable the community to participate (Houston 1998, Schele et al. 1998, and Breton et al. 2003). Access to the temples and inside the rooms was restricted to some people, such as the ruler and the priests. The priesthood was a function that could have been enacted by both genders (Halperin 2014, Perez Lopez 2013, and Grube et al. 2006). Priesthood could have been represented in different media (Figure 170; Annex 4.1 to 4.4). Male priests were mainly found depicted on stone monuments (five cases). In two instances, male priests were seen in ceramic scenes. Only one female priest was recovered in a ceramic scene.

In conclusion, the iconography suggests that most priests were men. Care must be taken with these results. The almost nonexistence of women in the priesthood does not imply that they were not involved in this activity (not depicted, not preserved media, etc.).

Before being able to do more detailed analysis, a χ^2 test is required. The result of this test is 0.07619, and the p-value is 0.78. The p-value is too high, meaning the data is linked only randomly. No further analysis can be done.

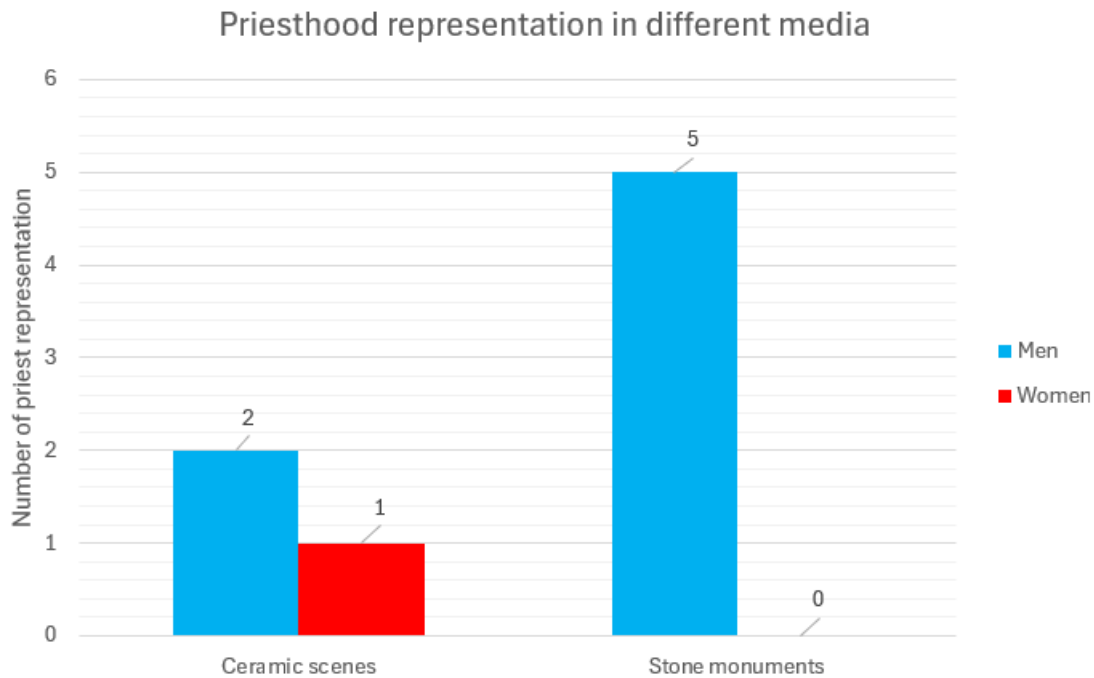


Figure 170: Histogram showing genders involved in priesthood from the iconographical depictions

Divination was an activity that both genders could practise. From the iconography and artefacts recovered, it could be noticed that some divinations took place through the presence of mirrors. Mirrors reflected the future (Perez Lopez 2013, Fitzsimmons 2010, Scherer 2015, and Chase et al. 2017). In the iconography, five scenes were seen on ceramics. In Joya de Ceren, a structure probably pertained to a woman practising divination. Other sites, such as Aguateca, Altun Ha, Bonampak, Caracol, Chichen Itza, Copan, Dzibanche, Dzibilchaltun, Ek Balam, Kohunlich, Lamanai, Oxkintok, Palenque, Tikal, Yaxchilan, and Yaxuna, could have the evidence of people with divination duties (Annex 4.5).

Various mirrors were found in structures containing burials. The histogram (Figure 171) indicates that ten mirrors were located in ceremonial structures, two in political ones, and seven in residential structures. From the different categories of structures, 14 mirrors were recovered from mixed burials involving male and female individuals (seven in ceremonial, one in political, and six in residential structures). Two mirrors were discovered in grave goods assemblages associated with adult burials of undetermined sex found in ceremonial structures. One mirror was located

in male burials within residential structures, while two mirrors were linked to female burials: one in a ceremonial structure and one in a political structure.

In conclusion, it can be seen that slightly more women were associated with mirrors in their grave goods assemblages. Mirrors might have been used in ceremonial and residential structures.

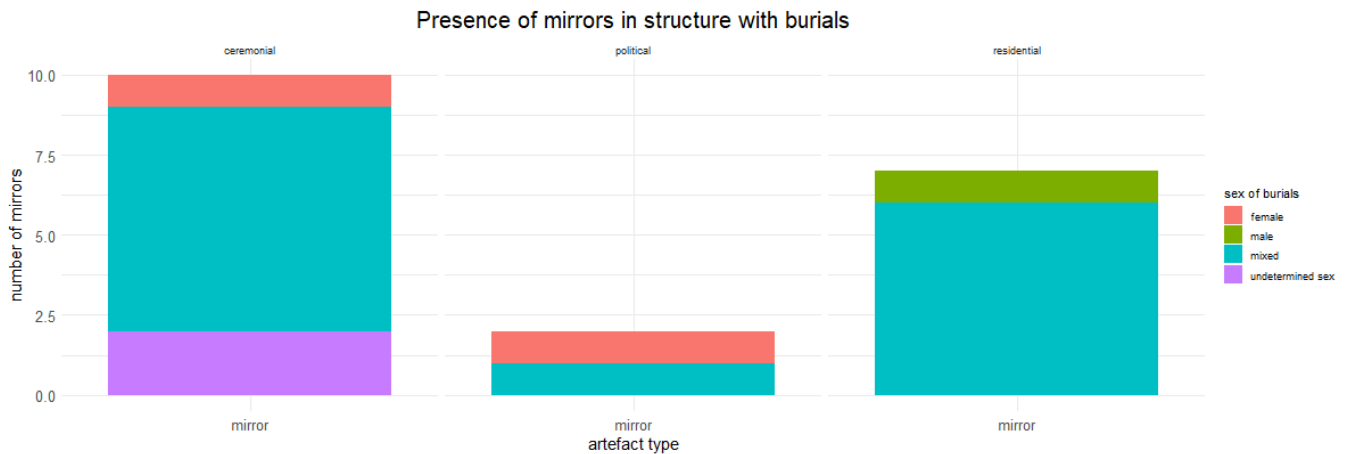


Figure 171: Histogram of the presence of mirrors in structures with burials

A further analysis could be done, such as the χ^2 test. The χ^2 is 1086.2, and the p-value is $1.887e-9$. The p-value is inferior of 0.05, which means that a CA could be elaborated and the data is not linked randomly.

From the CA (Figure 172), it can be deduced that female burials containing mirrors were linked to political structures. Male burials are excluded and do not form a cluster with a specific structural category. Mirrors were present in mixed burials and associated with ceremonial and residential structures.

To conclude, mirrors were not gender-specific and were mostly found in burials located within ceremonial and residential structures.

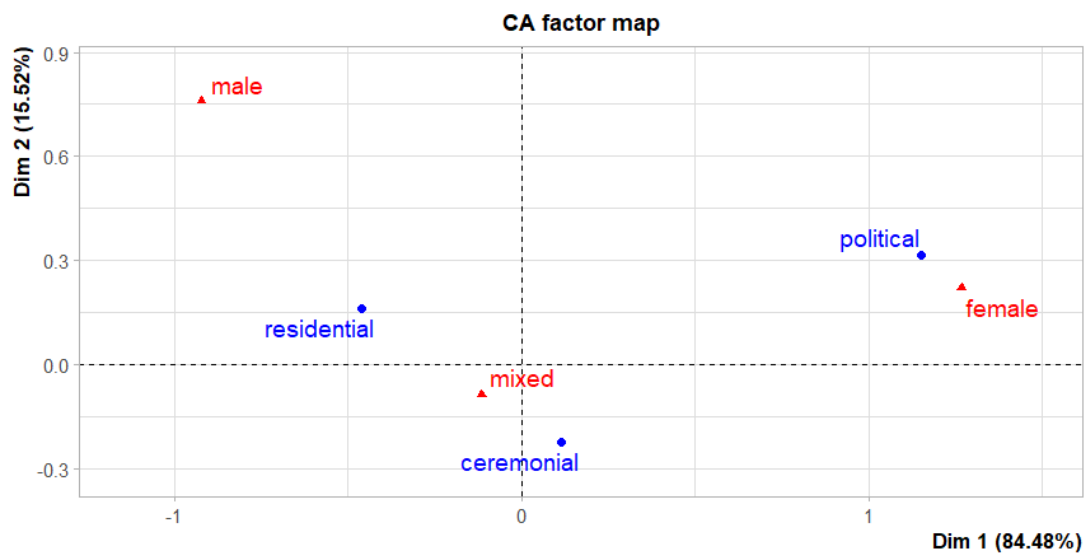


Figure 172: CA of the presence of mirrors in structures with burials

Moreover, from different sources, it could be supposed that rituals practised atop the temple in front of an audience were accompanied by music and dances (Halperin 2014, Inomata 2014, Eberl 2014, and Chase et al. 2000). Indeed, musical instruments such as flute, trumpet, and drum were recovered from grave goods or near temples. From the visited sites, turtle carapaces were found in residences and temples in Copan, Altun Ha, Joya de Ceren, Palenque, Xunantunich, Yaxuna, and Chan. Drums were discovered in residences and temples in Caracol, Chichen Itza, Kabah, Palenque, and Xunantunich. Copper bells were seen in residences, temples, platforms, and plazas in Chichen Itza, Coba, Lamanai, Mayapan, and Quirigua. Shell trumpets were recovered in temples, residences, palaces, and platforms in Caracol, Dzibilchaltun, Kohunlich, Mayapan, Oxkintok, and Uxmal (Annex 4.5). These instruments were found in or near temples and were associated with the men (De Cordoba 1942 and Sahagun 1577). Figurines and whistles were more common and accessible. They were mainly found in households and temples pertaining to men and women. Whistles were present in Altun Ha, Calakmul, Caracol, Copan, Dzibilchaltun, Ek Balam, Kohunlich, Labna, Lamanai, Mayapan, Palenque, Tikal, Tonina, Xunantunich, Yaxchilan, Yaxha, and Nacimiento. Figurines were found in every visited site (Annex 4.5). Through the iconography, various scenes showed

musicians. Mostly, men were responsible for playing music. From the histogram (Figure 173; Annex 4.1 to 4.4 and 5.3.3), it can be analysed that no women were represented as music players in various media. Men were mainly seen as musicians in codices (15 cases), and in lower amounts in ceramic scenes (four) and figurines (three).

To conclude, only men were depicted as musicians in the various portable media such as codices, ceramics, and figurines.

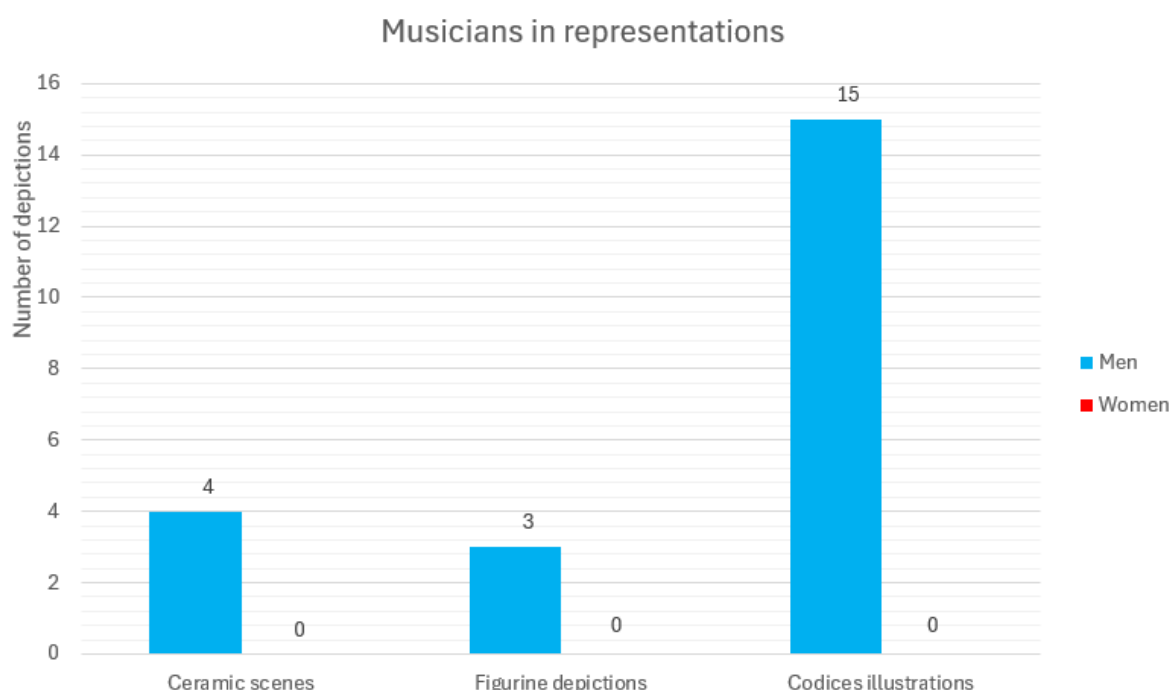


Figure 173: Histogram showing gendered music players in function of the context

The musical instruments found in grave goods assemblages (Figure 174) are composed of drums (six), figurines (80) (used as whistles), flutes (four), ocarinas (five), spondylus shells (33), trumpets (ten), turtle carapaces (nine), and whistles (27). Figurines are majoritarian in the corpus.

Musical instruments found in grave goods associated with females included figurines and spondylus shells. The quantity (five for each artefact type and each sex of burial) matches that of the males. The musical instruments discovered with male burials comprised only turtle carapaces (one) and whistles (two).

Mixed and adult burials of undetermined sex, this means male and female burials and unpreserved adults, were containing equally figurines (33 cases for each category), ocarinas (two cases per category), trumpets (five instances for each category), turtle carapaces (four cases for each category), and whistles (twelve cases per category). Drums were primarily seen in burials with undetermined sex (4). Flutes and spondylus shells were more commonly recovered in mixed burials. Three flutes were found in mixed burials, and one in an adult burial of undetermined sex. Ten spondylus shells were linked to adult burials of undetermined sex, and 15 to mixed burials.

In conclusion, we can deduce that neither gender had a predominant musical instrument; both may have had the opportunity to play them.

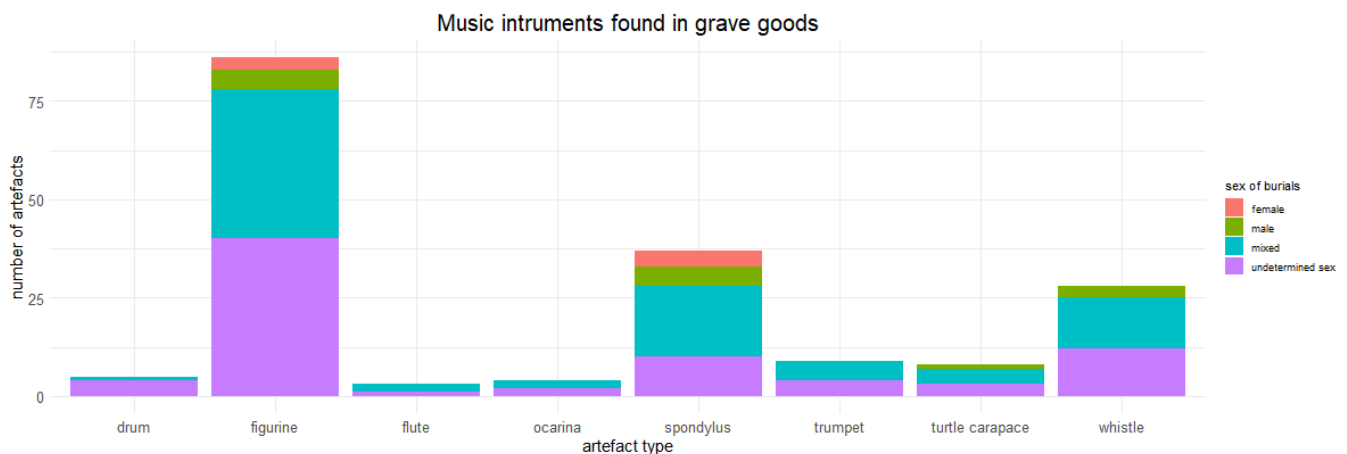


Figure 174: Histogram showing music instruments found in grave goods assemblages

The following step would be to realise a χ^2 test. The result of the χ^2 test is 1086.2, and the p-value is $1.887e-9$. The p-value is inferior to 0.05. This means the data is not linked randomly, and a CA can be performed.

From the CA (Figure 175), it can be analysed that spondylus shells were more associated with female burials. Whistles and turtle carapaces were connected to male burials. Mixed burials had the widest musical instrument assemblages, including figurines, ocarinas, drums, flutes, and trumpets.

To conclude, both genders included musical instruments in their grave goods assemblages.

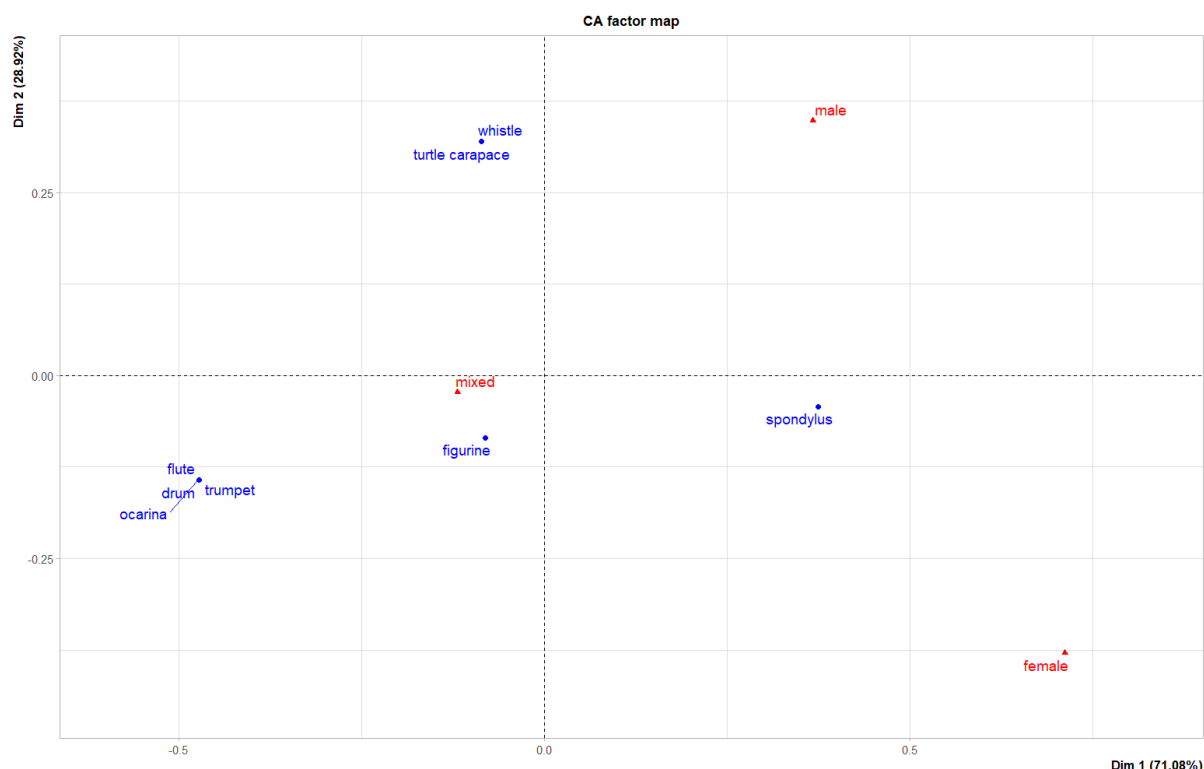


Figure 175: CA showing music instruments found in grave goods assemblages

Dancing scenes were represented on ceramics. Both genders could dance during ceremonies. Only on stelae (three) and ceramics (14) dancers were represented (Annex 4.1 to 4.4). The histogram (Figure 176) illustrates the representation of dancers based on the type of media and gender. The highest number of dancers was found in ceramic scenes, with 14 male dancers and ten female dancers depicted. On stelae, three male dancers were observed, and no female dancers.

In conclusion, both genders were represented as dancers. On portable media, such as ceramics, both genders were equally depicted. However, only men were shown in public displays. Nonetheless, the low number suggests that it may not constitute significant data.

The presence of platforms near temples in open spaces could have the function of stages for performances (musicians or dancers) (Whitlock 1976, Landa 1959, and De Cordoba 1942). For example, in Bonampak, Chichen Itza, Coba, Edzna, Ek Balam, Kabah, Lamanai, Mayapan, Oxkintok, and Tonina, the platforms placed on

open spaces could be a stage for the performances during the rituals enacted in temples (Annex 2).

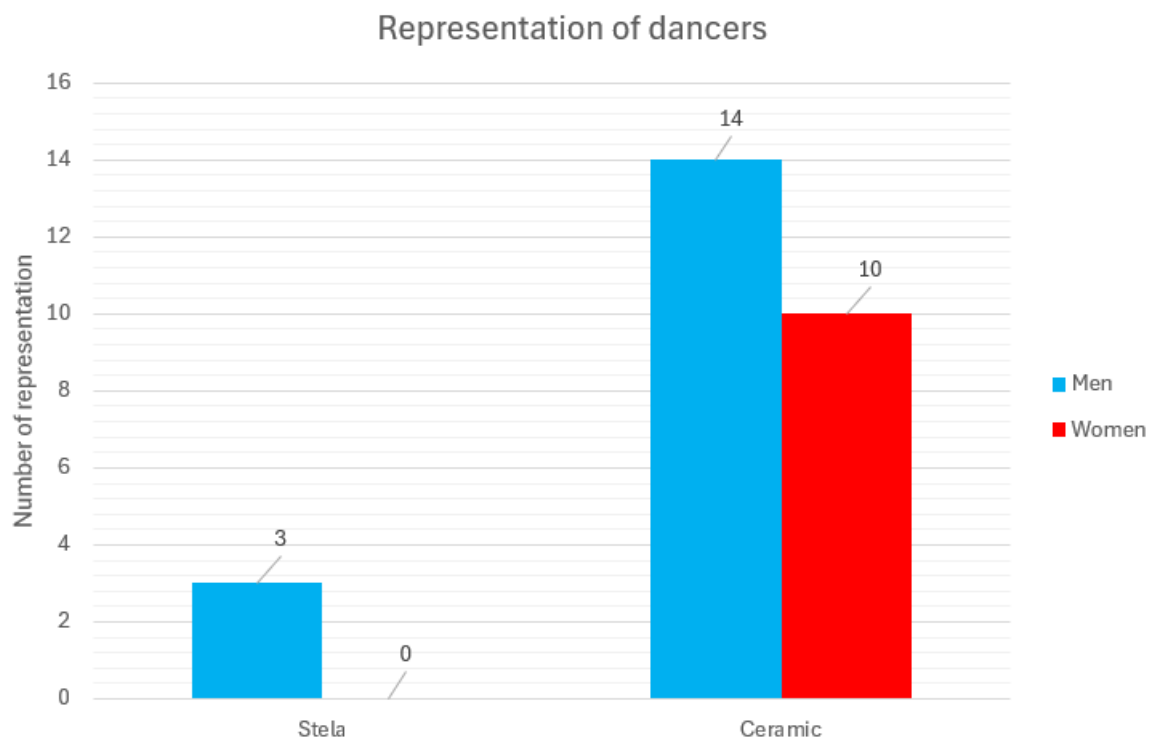


Figure 176: Histogram showing gendered dancers in function of the media

A further analysis, such as a CA, is impossible in this case. The result of the χ^2 test is 0.60055, and the p-value is higher than 0.05, being here 0.44. The data is linked randomly.

Various rituals were already discussed in the previous Chapters 3 and 9 (Figure 177). The bloodletting ritual consisted of perforating the male genitals or for women to pierce the tongue and pass a cord with spines through it. The blood will flow and drop on paper strips, which will be burnt for the gods. Mostly, women were depicted for the realisation of the ritual. Two lintels showed a woman

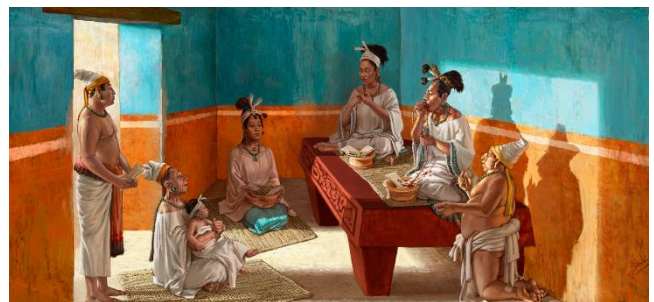


Figure 177: Reconstruction of bloodletting ritual ([MUJERES Y ARQUITECTURA - MayaTech](#))

practising a bloodletting ritual. One figurine represented a man perforating his genitals (Annex 4.1 to 4.4). The artefacts needed for this ritual were probably a perforator, stingray spines, basketry, paper, and pots. The majority of the artefacts were of perishable material, and only a few were recovered (Cadalen 2023, Taschek 1994, and Stone et al. 2011). In 17 cities (of 35), some stingray spines were recovered in temples, residences, and palaces and associated with men and women (Annex 4.5). 22 stingray spines were associated with male burials and 15 with female burials. Another ritual was the vision serpent. Women probably enacted this ritual. From the histogram (Figure 178; Annex 4.1 to 4.4), it can be seen that mostly women were represented enacting the vision serpent ritual. On lintels, six women were depicted practising the vision serpent, while only two men were represented for the enactment of the same ritual. On ceramics, only women were seen (two).

To conclude, the corpus indicates that women were represented in various media as participating in the vision serpent ritual. However, this does not imply that men were not practising this ritual. They may have engaged in it in a more private sphere, avoiding public exposure. Women were possibly seen as the ones responsible and able to communicate with their ancestors.

A χ^2 test is needed to understand if a CA can be elaborated. The result of the χ^2 test is 6.163e-32, and the p-value is 1. The p-value is too high, and the data is linked randomly.

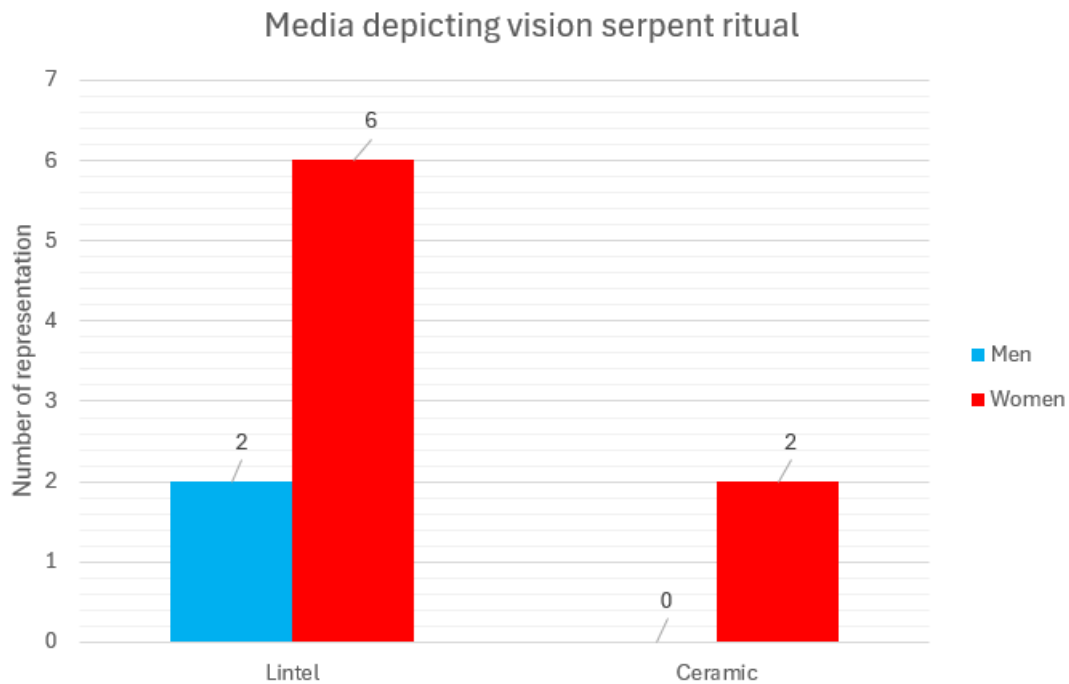


Figure 178: Histogram showing the gendered depictions of the vision serpent ritual

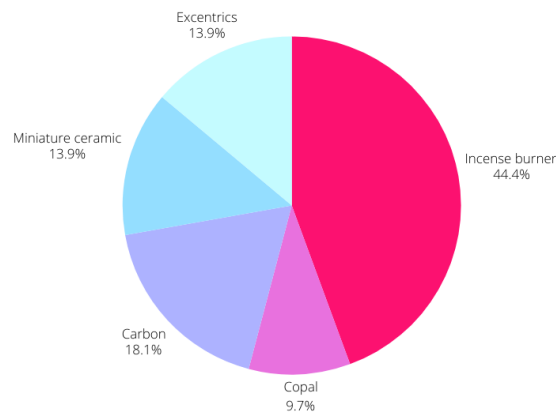
Furthermore, some myths could have been recreated. The sacred book from the K'ichee community, the *Popol Vuh*, is one of the rare sources that is still preserved. Inside this book, the beliefs of the Mayans are written down. Myths, such as the dressing of the Maize God or the death of Itzamna, were depicted in ceramics. In total, from the iconographic corpus from the Kerr ceramic rollouts, 18 scenes depicted a part of a myth in which women were involved (Annex 4.1 to 4.4). During ceremonies, these myths could have been performed over centuries and passed from generation to generation until somebody wrote them down. A further ritual was the enema. Men were injecting some hallucinogenic products into their bodies through their behinds. From the iconography, it could be seen that only men were realising it. However, women also had a role to play. They helped the men to administer the injection and prepare the products. From the iconography, seven scenes were found on ceramics (Annex 4.1 to 4.4). From the grave goods, some bone tubes could have the purpose of enacting the ritual and injecting the product into the individuals (Gamez Diaz 2013). Bone tubes were found in temples and residences associated with male burials in Lamanai, Tikal, Tonina, Uaxactun, and Yaxha (Annex 4.5). In addition, on another occasion, it could be deduced that women were helpers in the realisation of men's rituals, and they could prepare tools that the men might require

(Landa 1959, Rodriguez-Shadow 2007, and Patrois 2008). For example, women could hold objects such as bundles, as depicted in the iconography. Eleven cases could be studied from the stela and lintels, and ten from ceramics (Annex 4.1 to 4.4). Women could also have been in charge of preparing food for the gods. Some miniature metates were found near temples. Ten cities in total (representing 30%) had the presence of miniature ceramics near temples such as Calakmul, Caracol, Chichen Itza, Dzibanche, Ek Balam, Lamanai, Palenque, Tikal, Yaxchilan, and Yaxha (Annex 4.5) (Figure 179).

Ritual activities	Women
Holding in stone monuments	11
Holding in ceramics	10
Preparation of food artefacts	21
Total	42

Figure 179: Table showing the women's activities during rituals in function of the media

From the ethnography, it can be supposed that some houses were installed to house menstruating and elderly women (women's house) and yet unmarried men (men's house). The people living in these communal structures possibly took care of the temples, made offerings to the gods, assisted the priest, or performed. These houses could have been long structures with colonnades (Houston 2018, Landa 1959, Millbrath et al. 2003, and las Casas 1957). Six sites could have had colonnaded houses that would function as a men's or women's house, such as Mayapan, Uxmal, Chichen Itza, Kabah, Sayil, and Labna (Annex 2). This data has so poor evidence that we can only consider it a hypothesis and supposition. In addition, both genders could have made offerings. Offerings for the gods were probably composed of incense, food, blood, or different objects. Indeed, from excavations practised in the sites, we could notice that mostly incense composed of copal was burnt. Excentrics and food products made with miniature metate could also be offered to the gods near temples (Andrieu 2014, Ashmore 2013, and Houk 2015) (Figure 180).



Offerings from the excavation

Figure 180: Graph showing the offerings from the excavation

Blood could have been given to the gods through the bloodletting ritual, as it was seen earlier, or through people's sacrifices. This theme appeared in ethnographies. Various individuals could have been sacrificed: men, women, children, and animals (Sahagun 1577). However, the men were seen in the iconography as the ones responsible for its execution, as could be noticed in six scenes on lintels and stela, one scene on ceramic, and two scenes in the Florentine Codex (Annex 4.1 to 4.4 and 5.3.4).

To conclude, the ceremonial space could be noticed through the presence of temples in the core area of the cities. Both genders were involved in similar activities such as priesthood, divination, bloodletting ritual, offerings, dancing, and recreation of myth. Other activities were practised by women (vision serpent ritual, food preparation for the gods, and preparation of rituals) or by men (sacrifices, enema ritual, and playing music). Ceremonial spaces were mostly accessible to men rather than women. Due to menstruation, if women were allowed in sacred places, they would generally not have menstruated yet, or be elderly. Therefore, women were symbolically present in rituals through the elaboration of textile bundles and the preparation of paraphernalia.

The following table summarises what could be expected from ceremonial spaces. Here, the aim is to understand what are the main features and characteristics of them, such as the type of sites it appears, their location within the sites, the structures that had a political function, the types of artefacts mostly found there, the presence of burials, the gendered activities occurring there and finally the type of sources from which the information was taken.

	Ceremonial space			
Type of sites	All sites (more present in primary sites and less in small settlements)			
Location within sites	Core area			
Type of structure	Temple, platform near temples, labyrinth			
Type of artefacts	Lithic : -Knife -Point -Blade -Excentric -Mano -Miniature metate -Mirror	Ceramic : -Plate -Bowl -Cup -Vase -Figurine -Pot Miniature vessel -Incense burner	Bone and perishable : -Drum -Paper strips -Stingray spine -Tube -Perforator -Copal -Pigment -Codex and textile fragment -Needle -Animal teeth and bones	Jade and shell : -Bracelet -Mask -Anklet -Earplug -Necklace -Pectoral -Ring -Belt
Presence of burials	Yes (from the royal elite and accompanying people)			
Activities and gender	Men : -Musician -Enema -Sacrifice	Women : -Vision serpent -Helper -Holder -Preparation of food for the gods	Both genders : -Priesthood -Divination -Dancer -Bloodletting -Recreation of myth -Offerings -Taking care of temples	
Sources	Iconography, epigraphy, funerary context, ethnography			

Figure 181: Table resuming the ceremonial space characteristics and features

10.3) Civic space

The following space to be examined will be the civic space. This space was located near open spaces. The author qualified structures such as ballcourts, marketplaces, and administrative locations as civic. Civic in this doctoral dissertation refers to events or activities in which the community could come together.

The marketplaces were public. Many people could come to sell or buy goods and food. The marketplaces are hard to find and identify due to their poor preservation. The materials used for the market structures and the products exchanged there were made of perishable materials. However, through the residual archaeology, the use of chemicals such as phosphor, iron, and zinc could have been revealed, and it could be possible to identify that some open spaces could have served as marketplaces. For example, the presence of a high concentration of phosphor means that food products were sold there. A high concentration of iron and zinc implies that at this place, some craft items were exchanged (Dahlin et al. 2007, King 2015, and Ruhl et al. 2018). A few marketplaces were identified from the visited sites in Calakmul, Caracol, Chichen Itza, Oxkintok, Yaxuna, Uxmal, Xunantunich, Seibal, and Tikal (Annex 2). Moreover, through iconography and ethnography, it could be analysed who was selling goods and what kind of goods were sold. Both genders were involved with market duties. Through the Florentine Codex, used here as an analogy to the Maya sources, it could be noticed that ten scenes showed men selling goods, and 20 other scenes showed women performing this task. In the mural of Chik Nahb in Calakmul, only women were seen selling their products in the marketplace (Annex 4.1 to 4.4 and 5.2). However, some sources showed that women were more used to sell food; meanwhile, men sold craft products. From the Florentine Codex and the Chik Nahb mural, it could be supposed that women were selling food products, drinks, salt, textiles, and herbs, while men were responsible for the sale of feather craft, music instruments, butchery, and ceramic (Chase et al. 2017, Ardren et al. 2010, and las Casas 1957). From the markets, few non-perishable materials might have been recovered, such as knives, lithics, pots, jars, etc. From the visited sites, a few artefacts might have been found

in marketplaces, such as jade, pendant, bead, shell, vase, spindle whorl, plate, knife, box, point, obsidian nucleus, ax, stamp, mano, metate, pin, animal bone, figurine, and earplug (Annex 4.5). The histogram (Figure 182) illustrating the representations of goods transportation shows that men were primarily responsible for this duty. Men appear in one case in murals, two instances in figurines, nine cases in codices, and four cases in ceramic scenes. Women also transported goods, as noted in four depictions in codices and three in ceramic scenes. Iconographically, women with hats could have had a mercantile activity (Annex 4.1 to 4.4 and 5.2.3 to 5.2.4). From the data, 72.7% of men were seen in a transport activity against 27.3% of women.

In conclusion, no one gender can be solely assigned the responsibility of transporting goods; both are accountable for it.

A CA will not be realised. The result of the χ^2 test is 1.8234, and the p-value is 0.61. The p-value is superior to 0.05, and the data is linked randomly.

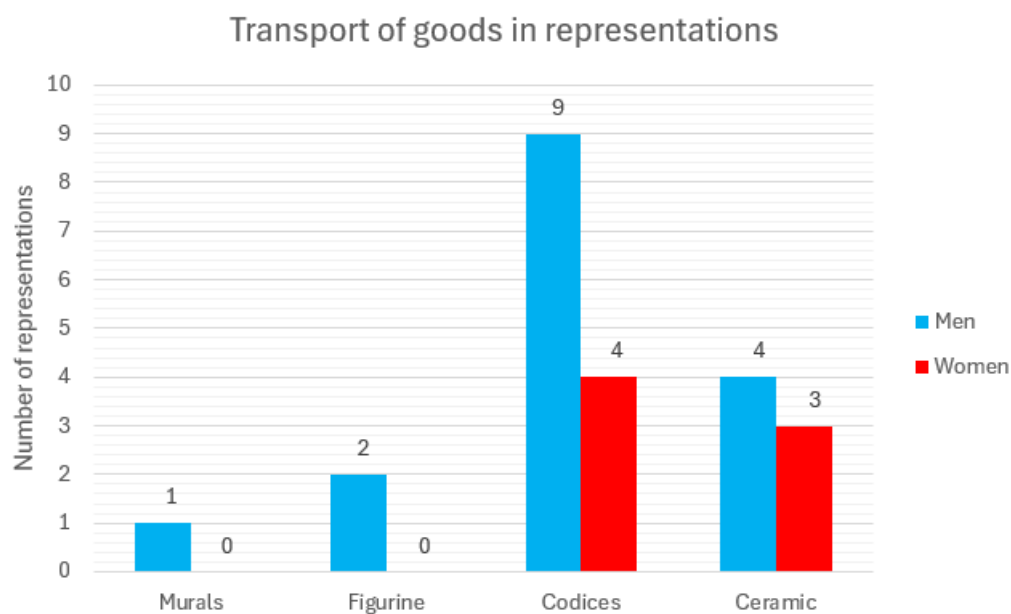


Figure 182: Histogram showing the gendered transportation of goods in function of the media

The ballcourts were spaces for playing ball for fun, competition, and sacrifices. They were located near wide open spaces and temples at the core area of the city (Willey 1975-1990, Morton 2007, and Ardren 2015). 63% of the sites had the presence of a ballcourt (Annex 1). Iconographically, the players were exclusively men. Ballplayers were depicted as two figurines, present in one scene of the Florentine Codex, represented in eight scenes on stone monuments, and present in 30 ceramic scenes (Annex 4.1 to 4.4, Rodriguez-Shadow 2006, and Perez Lopez 2013). However, from the ethnography, we can notice that women can also be good ballplayers nowadays. When the game was for a competition or sacrifice, the community could watch the game. It might be possible that both genders were spectators. Only a few evidence of spectators were found (Figure 183). The artefacts recovered were the yoke. It was a large stone belt worn by men. The yoke was found mainly in elite residences in Chichen Itza, Palenque, Tonina, and Tikal (Annex 4.5).



Figure 183: Ballgame scene with spectators on ceramic K5435

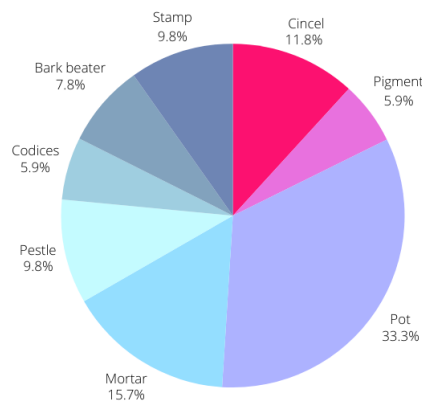
Some structures could have housed administrative activities. For example, in Edzna and Dzibilchaltun, large range structures were found next to the central public plaza. It is supposed that they might have been storage places for tribute or administrative locations (Kievit 2008, Andrews 1991, and Inomata 2010). From the ceramics, eleven scenes could depict a tribute scene with the ruler and his wives sitting next to him (Annex 4.3). This kind of structure might have existed at other sites, but they could not yet be identified as such. Under administrative tasks, we can include scribal and painting activities (Figure 184). Even if both activities could

also be involved in political and ceremonial duties, the author decided to place them into the administration tasks. For her, part of the community could enjoy the deeds of the scribes and painters. Various evidence from the iconography and epigraphy showed that both genders could be involved in these activities. 24 ceramic scenes represented men, and two ceramic scenes depicted women as scribes and painters (Annex 4.3). The artefacts mostly recovered, and that can be related to



Figure 184: Reconstruction of scribal and painting scene (MUJERES Y ARQUITECTURA - MayaTech)

scribes or painters, were the cincel, bark beaters, pots, mortar, pestle, pigments, stamps, and codices (Emery et al. 2007 and Inomata 1997). Some of these tools were discovered as grave goods or in some inner rooms of structures (residences, temples, palaces, markets, and administrative buildings). The following graph shows that the most found scribal and painters' artefacts within the visited sites are the pots (17 were found representing 33.3% of the sample), cincels (six were found representing 11.8% of the sample), mortars (eight were found representing 15.7% of the sample), and pestles (five were found representing 9.8% of the sample). Pigments (three were recovered representing 5.9% of the sample) and codices (three fragments were found representing 5.9% of the sample) were rare to find due to their poor preservation. Four bark beaters and five stamps were also discovered, representing 7.8% and 9.8% of the sample (Annex 4.5) (Figure 185).



Artefacts of scribe/painter from excavation

Figure 185: Graph showing the artefacts of scribe/painter from the excavation

The most frequently discovered administrative tools in structures without burials (Figure 186) included the bark beater, chisel, cincel, mortar, pestle, pigments, pot, and stamp. A more significant number of administrative tools were found in residential structures, including two chisels, two mortars, three pestles, three pigments, twelve pots, and one stamp. Civic structures contained one stamp, one cincel, mercury, and hematite. One pigment, one bark beater, and two pots were recovered from political structures. One stamp and eight pots were found in ceremonial structures.

In conclusion, the preparation of pigments and scribal activities may have occurred in residential structures, while scribal work likely also occurred in civic and political buildings.

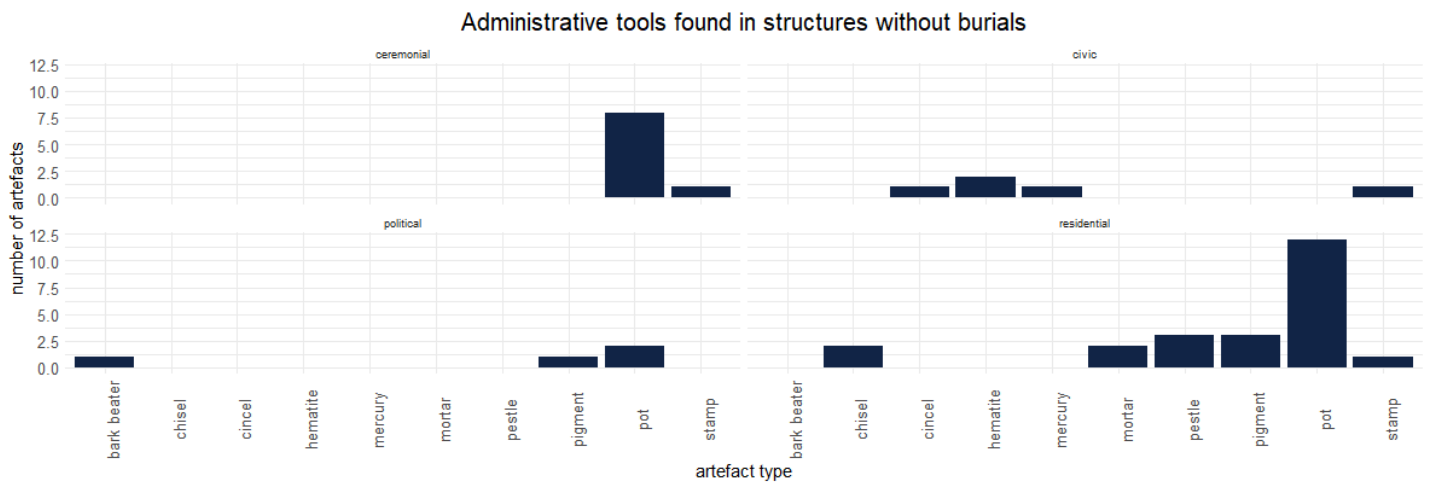


Figure 186: Histogram showing the administrative artefacts found in structures without burials

The next step will be to determine if a CA is possible. For this, a χ^2 test is needed. The result is 130.09, and the p-value is 3.009×10^{-6} . Due to a p-value inferior to 0.05, a CA can be realised. The data is not linked randomly.

The data of the CA (Figure 187) forms a parabola, which is called the Guttman effect. Multiple linkages connect the different categories together. The CA illustrates that every structure category has a cluster of associated administrative tools. Residential structures have the presence of mortar, pestle, chisel, and pigment. Bark beaters were more linked to political structures. Civic structures contained mostly cinzel, hematite, and mercury. Stamps were connected to ceremonial structures. Moreover, it can be deduced that political and residential structures are opposed to ceremonial and civic structures and open spaces. Ceremonial and residential structures are also opposed to political and civic structures and open spaces.

In conclusion, various administrative duties were occurring in different types of structures. Pigments were prepared in residential structures, paper was produced in political structures, pigments were used in civic structures (for example, for tribute counting), and stamps were used in ceremonial structures.

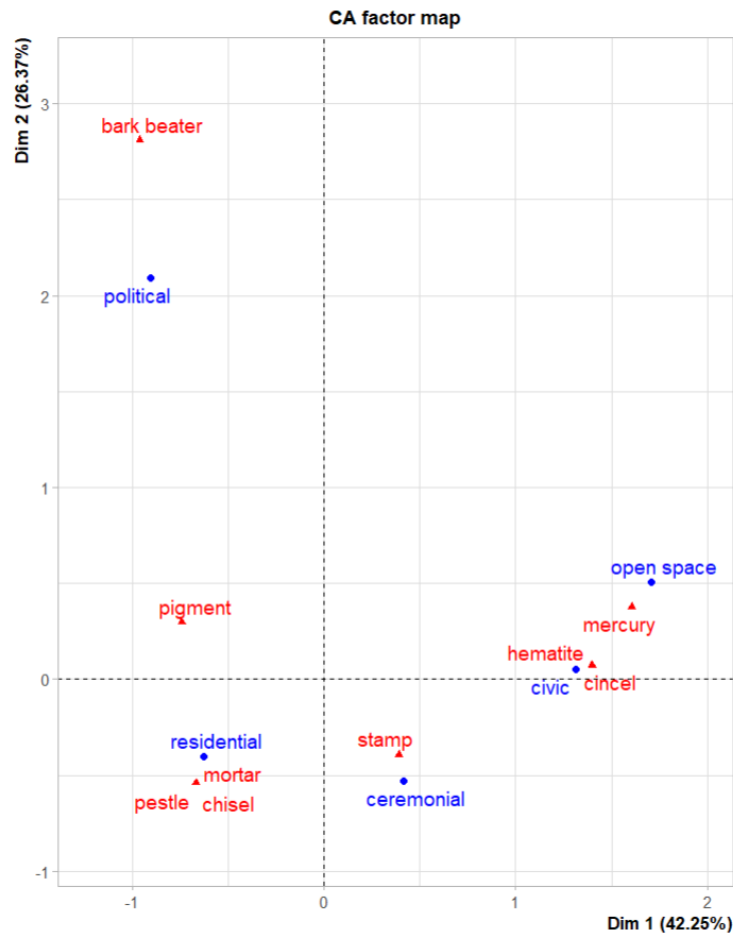


Figure 187: CA of administrative artefacts found in structures without burials

The histogram (Figure 188) indicates that administrative tools were present in grave goods assemblages, with a larger quantity found in residential structures. Four stamps (one from male burial and three from mixed burials), one pigment (found only in female burial), one bark beater (found only in adult burial of undetermined sex), three chisels (one from male burial and two from mixed burials), four mortars and pestles (one from mixed burial and three from adult burials of undetermined sex), and twelve pots (four from adult burials of undetermined sex, one from female burial, one from male burial, and six from mixed burials) were identified.

One bark pounder, a chisel, a pestle, and pigment were found in mixed burials located in ceremonial structures. A raedera was found in the burial of an adult of undetermined sex. Additionally, two mortars (one from a mixed burial and one from an adult burial of undetermined sex) and ten pots (one from an adult burial of

undetermined sex, two from male burials, and seven from mixed burials) were also discovered in ceremonial structures.

Open spaces contained hematite, one pot, pyrite, and one stamp from adult burials of undetermined sex. Political structures included one raedera and stamp from adult burials of undetermined sex, one mortar from a female burial, two chisels (one from a mixed burial and one from an adult burial of undetermined sex), and three pots (one from a female burial and two from adult burials of undetermined sex).

In conclusion, administrative tools were not gender-specific. The preparation of pigments was likely a task performed more frequently by women, while using stamps and chisels involved steps that required men.

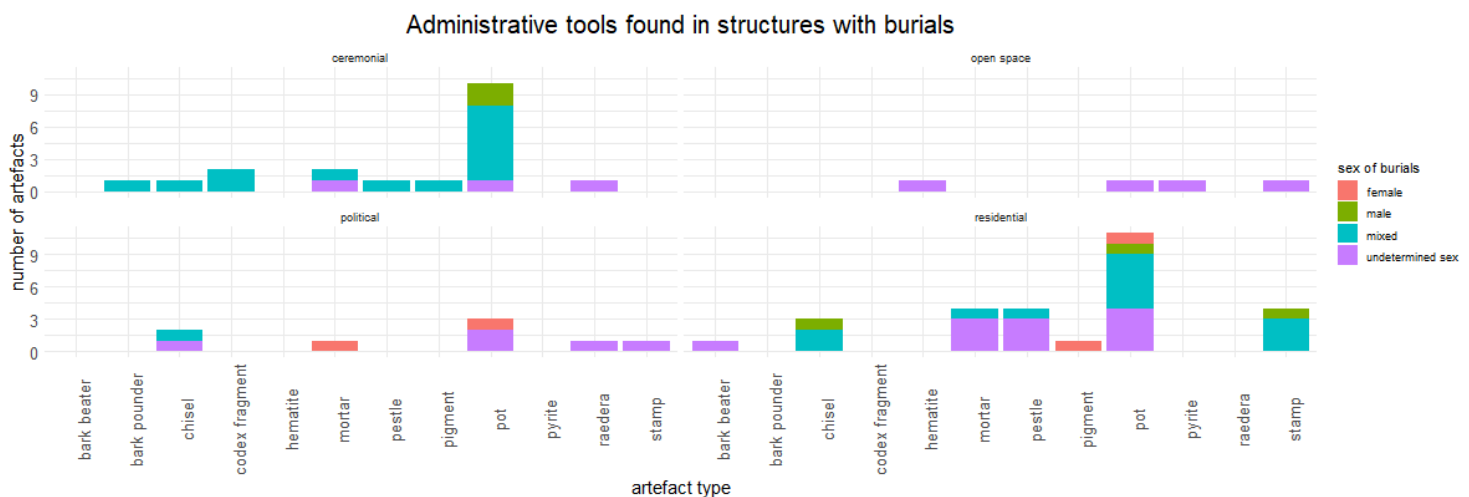


Figure 188: Histogram of administrative artefacts found in structures with burials

A χ^2 test can be done. The χ^2 is equal to 100.65, and the p-value is 6.057e-5. This means that the data is not linked by chance, and a further analysis, such as a CA, can be done.

The CA (Figure 189) indicates that administrative tools were clustered based on gender, suggesting that some steps may have been gender-specific. Female burials were associated with pigments and mortars, while male burials were linked to chisels and stamps. However, both genders may have been involved in paper production due to artefacts such as a bark pounder, pestle, and codex fragment found in relation to mixed burials.

To conclude, both genders were involved in administrative activities. However, the processes of their realisation were gender-specific. Women likely produced pigments, while men performed duties requiring stamps, and both may have produced paper and been scribes.

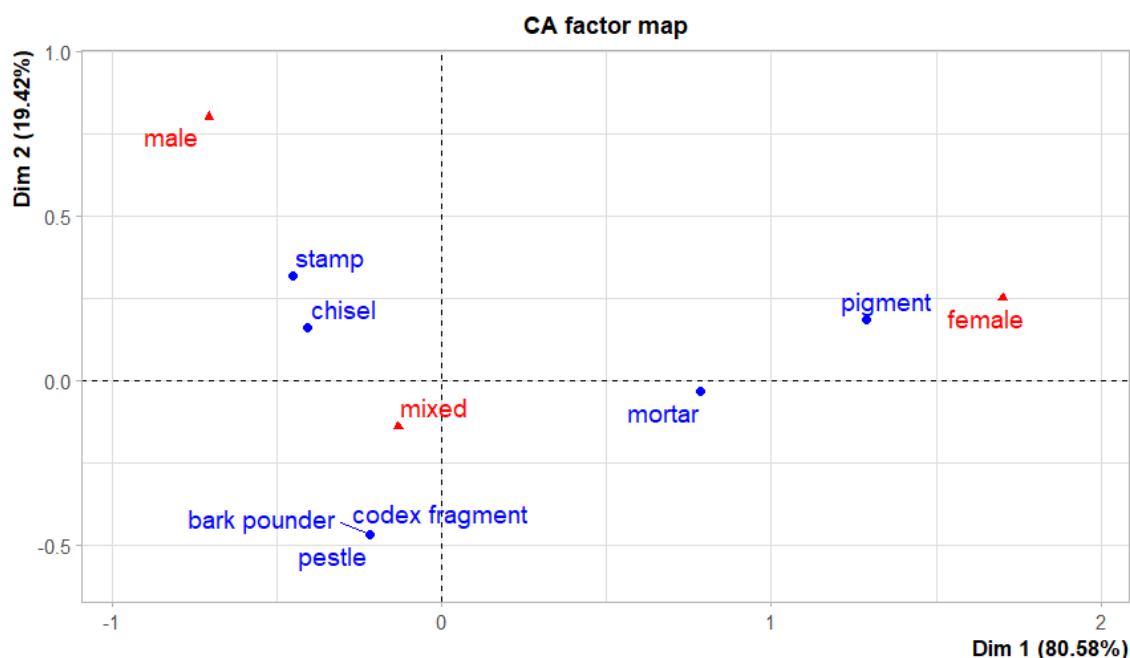


Figure 189: CA of administrative artefacts found in structures with burials

To conclude, the civic spaces were located in the core area of the sites near public open spaces. The probable activities that took place there were realised by both genders (scribe, painter, ballgame spectator, transportation of goods, and market sellers). Only the ballgame players were exclusively reserved for men.

The following table summarises what could be expected from civic spaces. Here, the aim is to understand what are the main features and characteristics of them, such as the type of sites it appears, their location within the sites, the structures that had a political function, the types of artefacts mostly found there, the presence of burials, the gendered activities occurring there and finally the type of sources from which the information was taken.

	Civic space			
Type of sites	All sites (more present in primary sites and less in small settlements)			
Location within sites	Core area			
Type of structure	Marketplace, ballcourt, communal/administrative structure			
Type of artefacts	Lithic : -Knife -Point -Nuclei -Mano -Metate -Mortar -Pestle -Yoke -Bark beater	Ceramic : -Pot -Jar -Spindle whorl -Plate -Box -Figurine -Stamp -Cinzel	Bone and perishable : -Pin -Pigment -Animal bone	Jade and shell : -Bead -Earplug
Presence of burials	No			
Activities and gender	Men : -Transport of goods -Ball players	Women : /	Both genders : -Selling goods -Tribute payment -Ballgame spectator -Scribe/painter	
Sources	Iconography, epigraphy, funerary context, ethnography			

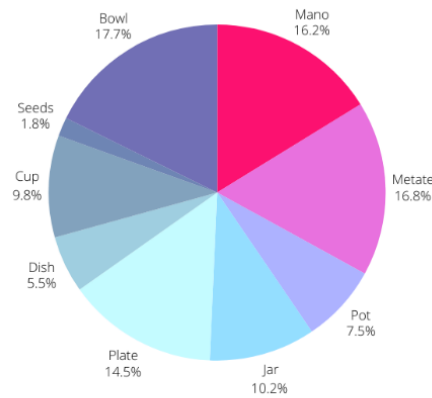
Figure 190: Table resuming the civic space characteristics and features

10.4) Residential space

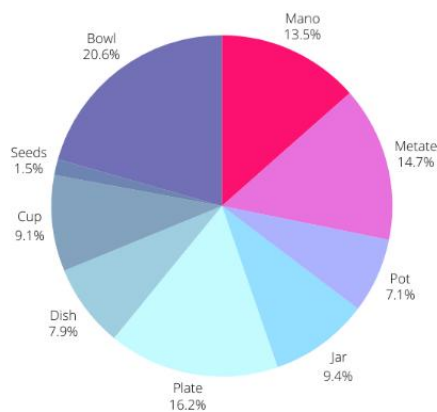
The next space we will deal with is the residential space. This space was composed of households and their corresponding patio area. The residences could have been built of stone or perishable material. Schematically, stone households could be linked to elite people and are mainly located near or around the core area. The houses made of perishable material were not preserved. Maybe some platforms could be found. These were located mostly at the periphery of the city. The residential space was restricted and accessible to family members or visitors (Hohmann 1995, Wurzburg 1991, and Hendon 1990).

Within the residential space, various activities were enacted in a single structure, room, or complex of structures. It depends on the status of the household members

and their organisation. For example, the kitchen could have been placed within the household in a separate structure, or it could have taken place in the patio area. For example, in the Río Bec region, shared kitchens were used. Members of different households used the same kitchen (Arnauld 2014 and Webster et al. 1997). From the visited sites, we could deduce that probably eight kitchens were located in a separate structure, and 20 were located in the same structure as the principal residence. In four sites, the kitchen area could be identified, from which three were rectangular in shape, and one was round (Annex 2). Food preparation and consumption could be recovered through artefacts such as mano, metate, burnt places, pot, jar, plate, knife, biface, cup, seeds, etc. (Nichols 2012, Götz 1998, Loughmiller-Newmann 2013, and Bonnafox 2008). Through the excavations realised in the archaeological sites of the corpus, a total of 105 manos (16.2%), 110 metates (16.8%), 116 bowls (17.7%), 95 plates (14.5%), 67 jars (10.2%), 64 cups (9.8%), 49 pots (7.5%), 36 dishes (5.5%), and 12 seeds (1.8%) were recovered from which 53 manos (13.5%), 58 metates (14.7%), 81 bowls (20.6%), 64 plates (16.2%), 37 jars (9.4%), 36 cups (9.1%), 31 dishes (7.9%), 28 pots (7.1%), and six seeds (1.5%) might have been discovered in a burial context (Figure 191) (Annex 4.5).



Kitchen tools from the excavations



Kitchen tools from the burials

Figure 191: Graphs showing the kitchen tools from the excavations and burials

From the histogram (Figure 192), it can be seen that various kitchen tools were found in structures without burials. The majority of these artefacts were recovered from residential structures and ceremonial ones. From the residential structures, 25 animal bones, one basket, 17 bowls, four carbon rests, ten ceramics without further detail, five cups, four cylinders, two dishes, three gourds, ten jars, eight knives, 22 manos, 33 metates, 16 plates, twelve pots, six seeds, and 16 vases were discovered. 14 animal bones, nine bowls, one carbon rest, two ceramic pieces, seven cups, four cylinders, five dishes, one gourd, seven jars, ten knives, five manos, seven metates, six plates, seven pots, and 14 vases were recovered from ceremonial structures.

Fewer kitchen tools were present in political and civic structures, as well as in open spaces. Three animal bones, four bowls, five cups, three jars, eight knives, five manos, six metates, two plates, and five vases were found in civic structures. From

the political structures, two animal bones, one bowl, two carbon rests, one ceramic piece, two cups, four jars, five knives, six manos, five metates, one plate, two pots, and five vases were discovered. Open spaces contained two animal bones, two bowls, one carbon rest, one ceramic piece, three cups, one jar, seven knives, five manos, four metates, one plate, one seeds set, and five vases.

In conclusion, food preparation and consumption occurred within residential structures. The ceremonial structures served as venues for communal feasts or offerings for the gods. Most food preparation and consumption tools discovered included manos, metates, jars, knives, animal bones, plates, vases, and bowls.

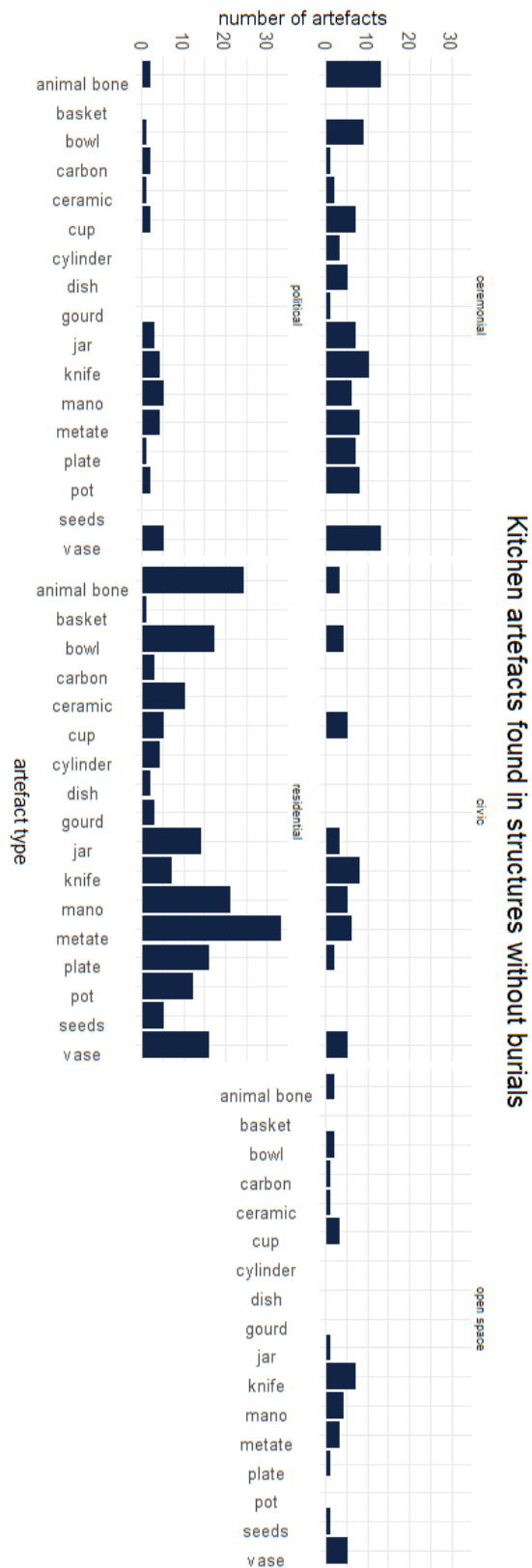


Figure 192: Histogram of kitchen tools found in structures without burials

The next step will be to determine if a CA is possible. For this, a χ^2 test is needed. The result is 130.09, and the p-value is 3.009e-6. Due to a p-value inferior to 0.05, a CA can be realised. The data is not linked randomly.

The CA (Figure 193) shows that a cluster involving political and civic structures and open spaces can be seen. Carbon, knife, cup, and vase were more associated with these types of structures. Ceremonial structures had mainly dishes, cylinders, and pots, while residential ones contained baskets, seeds, a metate, and a mano. Various kitchen tools were located between residential and ceremonial structures, suggesting their use in these structures, such as jars, gourds, plates, bowls, and animal bones.

To conclude, most kitchen artefacts were found in residential and ceremonial structures, attesting to food preparation and consumption activities there (for people, community, or gods).

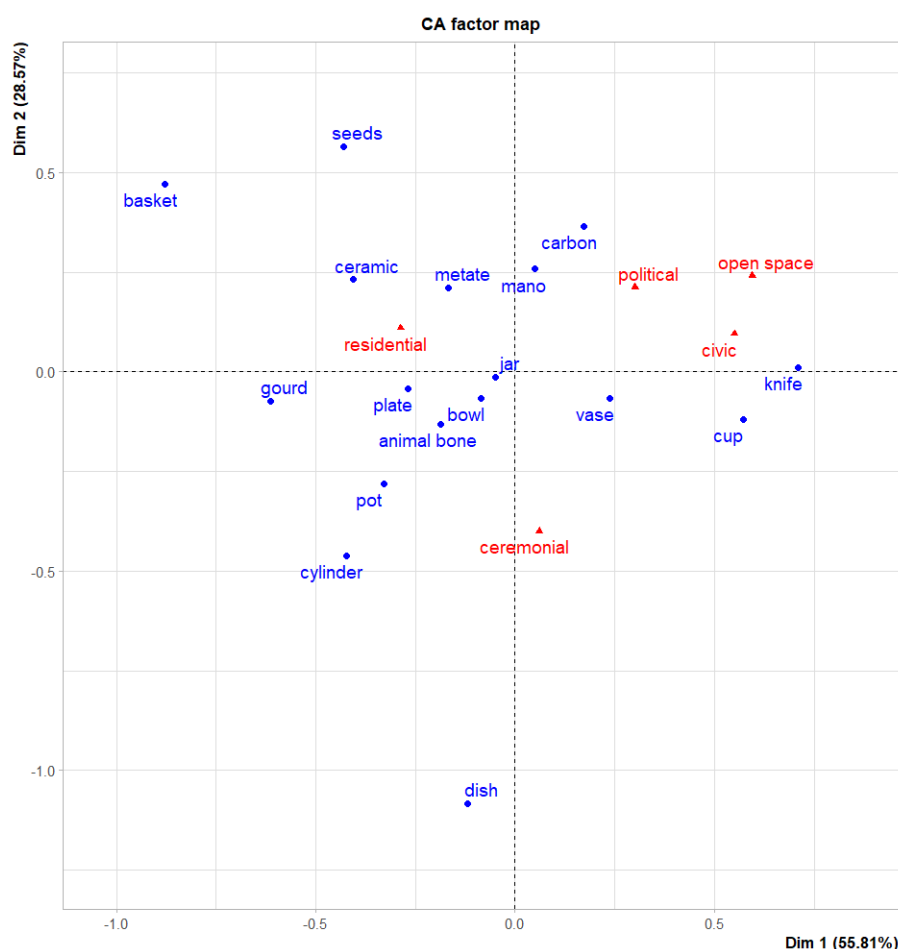


Figure 193: CA of kitchen tools found in structures without burials

From the histogram (Figure 194), the main kitchen tools found in grave goods assemblages are bowls (87 in total including 27 from adult burials of undetermined sex, 40 from mixed burials, twelve from male burials, and eight from female burials), vases (88 in total including 35 from adult burials of undetermined sex, 41 from mixed burials, eight from male burials, and four from female burials), plates (68 in total including 25 from adult burials of undetermined sex, 30 from mixed burials, ten from male burials, and three from female burials), metates (62 in total including 27 from adult burials of undetermined sex, 29 from mixed burials, three from male burials, and three from female burials), manos (55 in total including 27 from adult burials of undetermined sex, 23 from mixed burials, two from male burials, and three from female burials), jars (37 in total including twelve from adult burials of undetermined sex, 19 from mixed burials, two from male burials, and two from female burials), cups (35 in total including 25 from adult burials of

undetermined sex, eight from mixed burials, and two from male burials), dishes (34 in total including 17 from mixed burials, seven from adult burials of undetermined sex, four from male burials, and one from female burial), pots (25 in total including seven from adult burials of undetermined sex, 16 from mixed burials, two from male burials, and two from female burials), cylinders (22 in total including eight from adult burials of undetermined sex, twelve from mixed burials, and two male burials), carbon (14 in total including two from male burials, six from mixed burials, and six from adult burials of undetermined sex), and ceramics in general without further indication (ten in total including eight from adult burials of undetermined sex and two from mixed burials).

Basketry (one from mixed burial), cacao (one from mixed burial), gourds (two from mixed burials), a spoon (one from mixed burial), a tripod (one from mixed burial), a beehive (one from an adult burial of undetermined sex and one from a female burial), and seeds (one from an adult burial of undetermined sex, one from a female burial, two from male burials, and two from mixed burials) were less frequently found in grave goods assemblages due to their inferior material quality.

In conclusion, kitchen tools used for food preparation were more associated with female burials, such as mano, metate, beehive, and seeds, while men were more linked to kitchen tools used for food service, such as cup, cylinder, dish, and plate. However, no significant difference could be deduced from the data available.

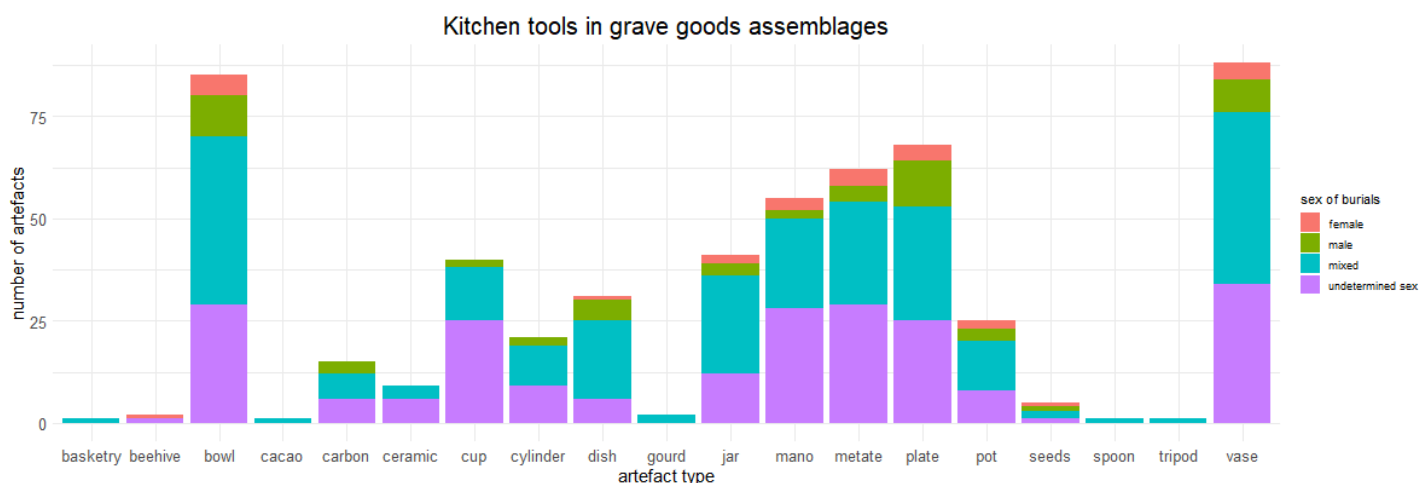


Figure 194: Histogram of kitchen tools found in structures with burials

A χ^2 test can be done. The χ^2 is equal to 100.65, and the p-value is 6.057e-5. Due to a p-value inferior to 0.05, a CA can be realised. The data is not linked randomly.

The CA (Figure 195) illustrates that most kitchen artefacts are clustered around the mixed burials. Carbon, plates, and knives are more associated with male burials, while seeds are more prevalent in female burials. Artefacts for food service, such as dish, cylinder, and cup were more related to male and mixed individuals. Preparation of food tools, such as jar, mano, metate, and seeds, were more linked to female individuals and are opposed to the service and consumption artefacts.

In conclusion, women may have had a stronger connection to food preparation duties, while men might have been primarily food consumers.

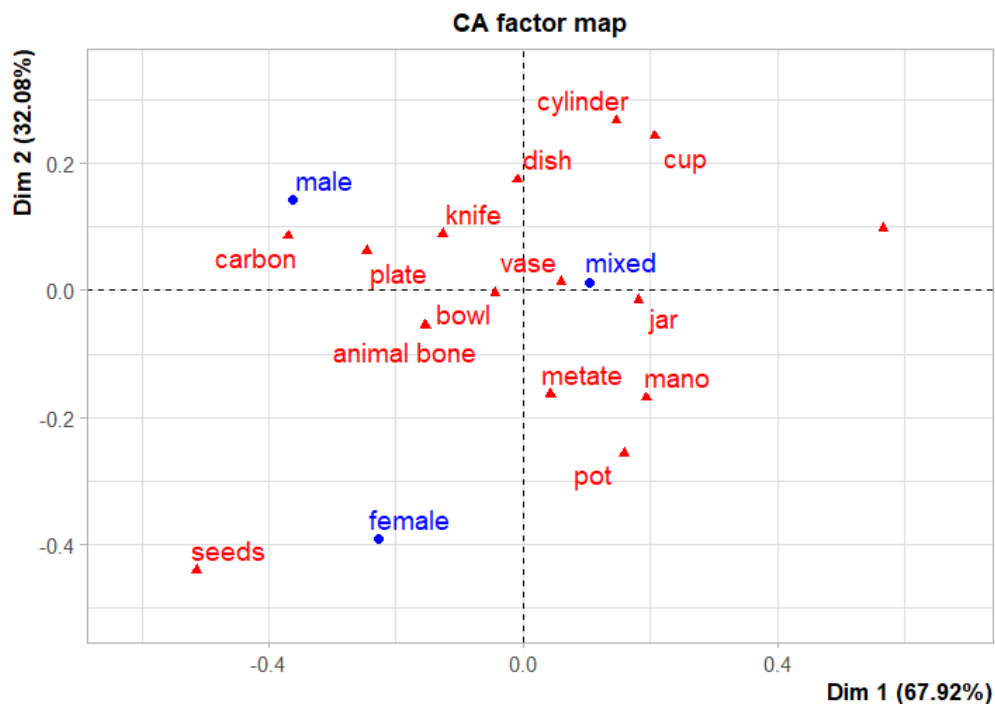


Figure 195: CA of kitchen tools found in structures with burials

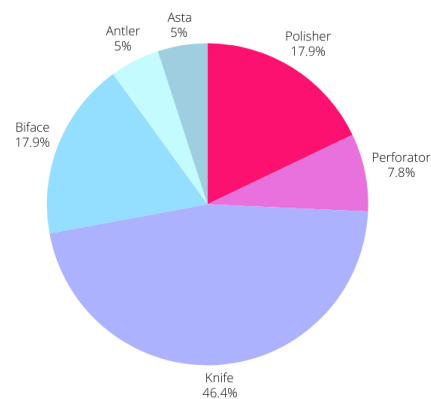
From the ethnography and iconography, we could identify that women were responsible for the cooking activities (Annex 4.3 and 5.2). In the Florentine Codex, eight scenes represented women grinding products such as maize. This was also the case for the ceramic K1272 and K631. However, five scenes from the Florentine Codex depicted men with a grinding duty. After a closer look, it could be possible

to identify that they were grinding materials, not food products. They are not taken into account for this study. Through the analysis of the skeleton, it could be seen that the musculoskeletal stress markers (MSM) from the upper body were symmetrical. This means that they were involved in activities requiring the same amount of strength from both arms. For example, the grinding of maize was a task that was done daily by women and required the same movement and strength from both arms. Men were mostly identified with an asymmetrical MSM. They probably used one arm more than the other for their daily duties (Weiss 2015 and Wiedenmeyer 2019).

Moreover, the service of food was made by women. Indeed, through the iconography and ethnography, it could be seen that women were serving men. From the ceramics, six scenes showed women serving men or visitors (Annex 4.3). Through the observations of the author in the Maya community, it could be seen that women were cooking and serving food for the family members and the men (Landa 1959 and Ardren 2020). In addition, food preparation and consumption involved the recollection of water and firewood. Both tasks were realised by women or children. Only a few pieces of evidence attest to the existence of these activities (Scott et al. 2020 and de Pierrebourg 1999). Nowadays, in Maya communities or through the analogy of cultures from other parts of the world, it can be noticed that women and children were responsible for these duties. No ethnographical work or iconography depicts people enacting these activities.

Different activities could have resulted from food preparation and consumption (Manzanilla 2009, Aoyama 2007, and Scott et al. 2020). Indeed, the firing of ceramics might have taken place on the patio with the installation of a special oven or in the same oven as the one used for the cooking of food in the kitchen. The only evidence that could be investigated is that no special space for firing ceramics was found in the sites in question for this study. Moreover, butchery and leather were made near the kitchen area on the patio. The remaining animal bones and shells could have been transformed into rooms or the patio area. Through the visited sites, the remaining 108 animal bones were recovered from the rooms, and 20 were

discovered in open spaces such as the patio (Annex 4.5). The realisation of these activities could have been done by both genders. The artefacts needed for these tasks were varied. Knives, bifaces, and polishers were mostly found. They could also have a multifunctional task. Perforator, antler, and asta were also discovered and could have been used for these activities (Figure 196) (Andrieu et al. 2014 and Cadalen 2023). In the following graph, 32 polishers (17.9% of the sample), 14 perforators (7.8% of the sample), 83 knives (46.4% of the sample), 32 bifaces (17.9% of the sample), nine antlers (5% of the sample), and nine asta (5% of the sample) were found in the archaeological sites from the corpus and could be evidence for butchery and leather craft activities.



Artefacts for butchery and leather crafting

Figure 196: Graph showing the artefacts needed for butchery and leather crafting

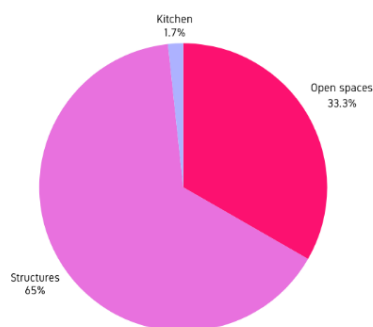
The butchery and leather crafting tools were found in a total of 68 structures and 26 in open spaces such as patios (Annex 4.5). Through the Florentine Codex, it could be investigated that men were realising feather crafts. 30 scenes depicted this activity, which could have taken place outside the house or in a special room of the house (Annex 5.1.3).

Another activity was taking place in the residential space: textile production. This activity was controversial and could not be ascribed exclusively to a gender. However, the different steps for its realisation were possibly gendered. Cloth could have been made of two different materials: cotton or maguey. Cotton was mainly associated with the elite people, and maguey with the commoners. Both plants

needed to be planted and harvested. Men and women could have been involved in this step. Then, the spinning of the fibres was practised by both genders. Also, when men were involved in textile production, it was elderly men, children, or disabled men (Tremain 2017, Halperin 2008, and Chase et al. 2008). The artefacts required for this task were the spindle whorls. These tools were discovered within burials in association with female individuals and sometimes with male ones (Ardren 2002, Nichols 2012, and Halperin 2008). 69 spindle whorls were recovered from the visited sites, from which 39 could be associated with a burial context. In some burial contexts, more than one burial was found. In this case, the tool was ascribed to all the sexes found (Figure 197). The spinning activity could have taken place on the patio or open spaces (33.3%), in the kitchen (1.7%), or in structures (65%) (Annex 4.5) (Figure 198).

Spinning	Male	Female	Adult of undetermined sex	Structure without burial
Spindle whorl	9	11	25	30

Figure 197: Table showing the spindle whorls found in funerary contexts and structures without burials

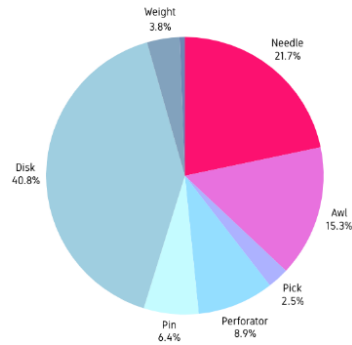


Location of spinning tools from the excavations

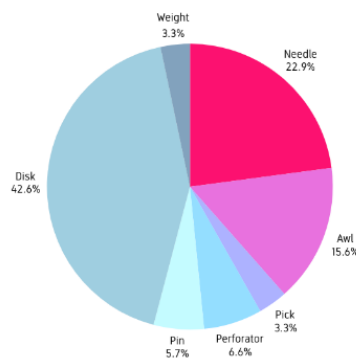
Figure 198: Graph illustrating the locations of spinning tools from the excavations

A further process in textile production could have been the dying of textiles. The artefacts required for this duty were pigments. From various literary sources, it is said that both genders could be involved in the task. However, no direct evidence

could be found. In addition, weaving, embroidery, and sewing were tasks realised by women (Chapter 7.2). Indeed, from the iconography and ethnography, we could exclusively see women kneeling while weaving or using a backstrap loom (Annex 4.1 to 4.4 and 5.1). Four figurines and ten illustrations from the Madrid and Florentine Codices depicted exclusively women in the weaving activity. Within the artefacts recovered from the archaeological sites under study here are 64 disks (40.8% of the sample), 34 needles (21.7% of the sample), 24 awls (15.3% of the sample), 14 perforators (8.9% of the sample), ten pins (6.4% of the sample), six loom weight (3.8% of the sample), four picks (2.5% of the sample), and one stick (0.6% of the sample) were discovered. From them, 52 disks (42.6% of the sample), 28 needles (22.9% of the sample), 19 awls (15.6% of the sample), eight perforators (6.6% of the sample), seven pins (5.7% of the sample), four loom weights (3.3% of the sample), and four picks (3.3% of the sample) could be related to a funerary context (Figure 199) (Annex 4.5).



Weaving tools from the excavation



Weaving tools from the burials

Figure 199: Graphs showing the weaving artefacts from the excavations and burials

The following histogram (Figure 200) illustrates the weaving tools found in structures without burials. The artefacts necessary for textile production include antler, asta, awl, disk, loom weight, needle, and spindle whorl. Most weaving tools were found in residential structures: eleven spindle whorls, one antler, one asta, one loom weight, two awls, three sherd disks, five needles, and six disks. In ceremonial structures, one sherd disk, two awls, two disks, and five spindle whorls were discovered.

In the other type of structures, a smaller number of weaving tools was recovered. One disk, one weight, and three spindle whorls were present in civic structures. In open spaces, one awl, one disk, and four spindle whorls were found. In political structures, only four spindle whorls were recovered.

In conclusion, spindle whorls were found in every type of structure. The textile production might have been realised mainly in residential structures due to the number and variety of weaving tools found there.

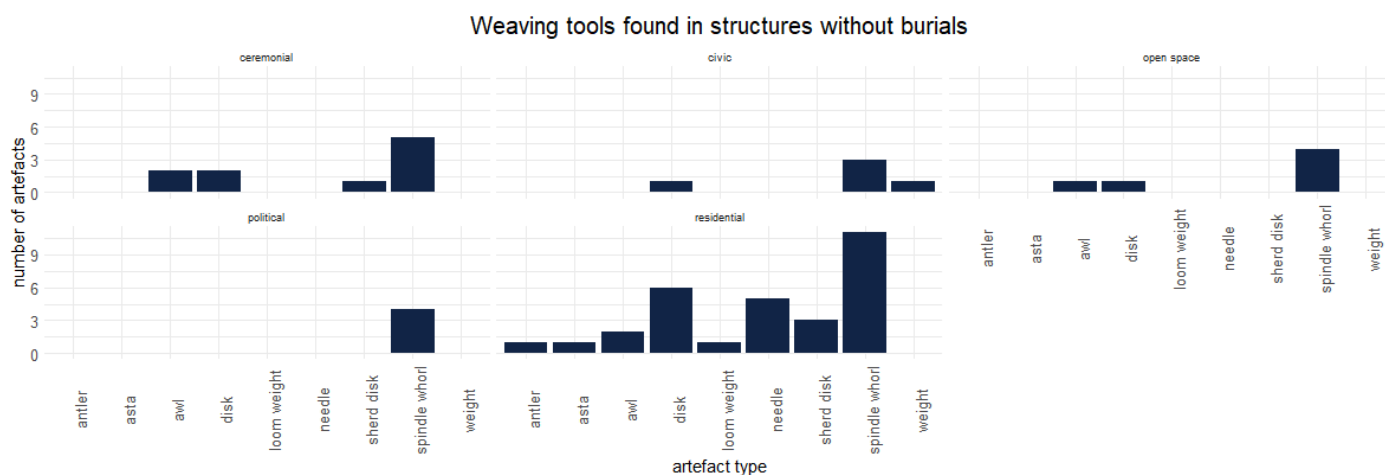


Figure 200: Histogram displaying the weaving tools discovered in structures without burials

The next step is the χ^2 test. The result of the χ^2 test is 130.09, and the p-value is 3.009×10^{-6} . These results show that the data is not linked randomly, and a CA is possible.

From the CA (Figure 201), it can be deduced that the political and civic structures were not the locations for textile production. Open spaces and ceremonial structures had respectively more the presence of spindle whorls and awls. Most weaving tools are clustered in the residential structures, such as the disk, needle, loom weight, and perforator.

In conclusion, the residential structures likely served as sites for textile production.

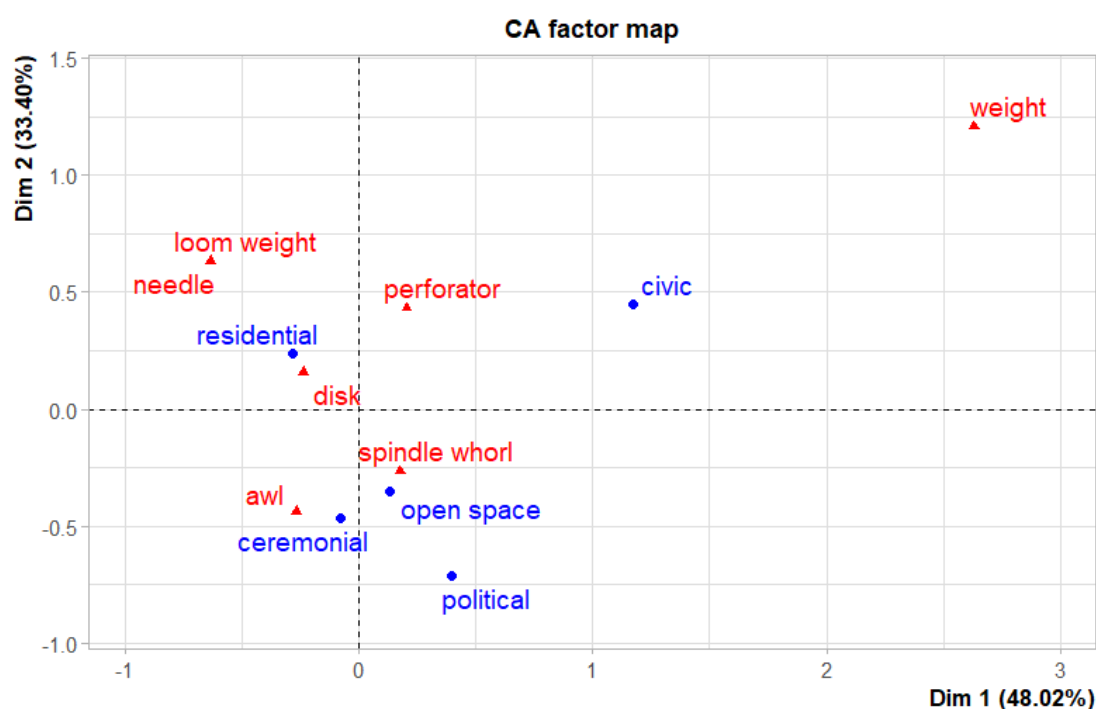


Figure 201: CA of weaving tools discovered in structures without burials

The histogram (Figure 202) illustrates the relationship between weaving tools and gendered grave goods. Disks (47), needles (30), spindle whorls (44), and awls (19) were the primary artefacts found in the burials. The data reveals that male and female burials had equal numbers of asta (one for each category) and needles (two for each category). Certain weaving tools were more commonly associated with female burials, such as sherd disks, while others were more linked to male burials, including spindle whorls (eight for males, one for females), pins (one for males), disks (seven for males, four for females), and awls (two for males, one for females).

Most of the data were related to mixed burials (males and females) and adult burials of undetermined sex.

In conclusion, most weaving tools related to burials include disks, needles, spindle whorls, and awls. No distinct gender can be identified in the textile production activity; both genders participated and likely engaged in different stages of textile creation.

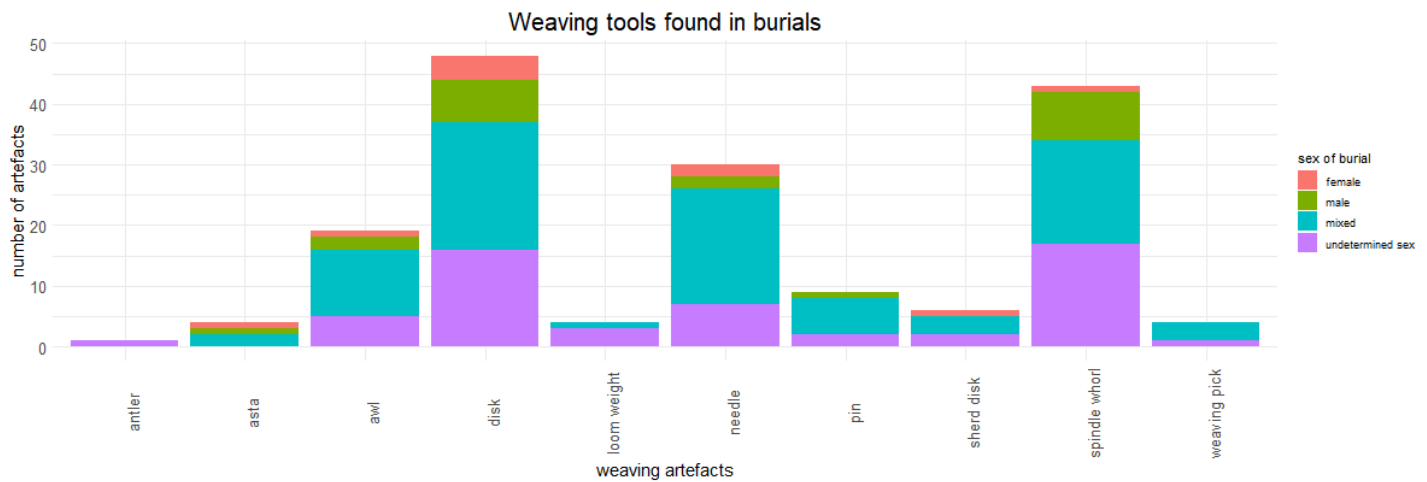


Figure 202: Histogram of weaving tools discovered in structures with burials

A χ^2 test can be done. The χ^2 is equal to 100.65, and the p-value is $6.057e-5$. Due to a p-value inferior to 0.05, a CA can be realised. The data is not linked randomly.

The CA (Figure 203) indicates that most weaving tools were associated with grave goods from both male and female burials. No distinct gender differentiation can be observed in the assemblages of gendered grave goods.

In conclusion, textile production was not exclusively a gendered activity; both genders contributed to its creation.

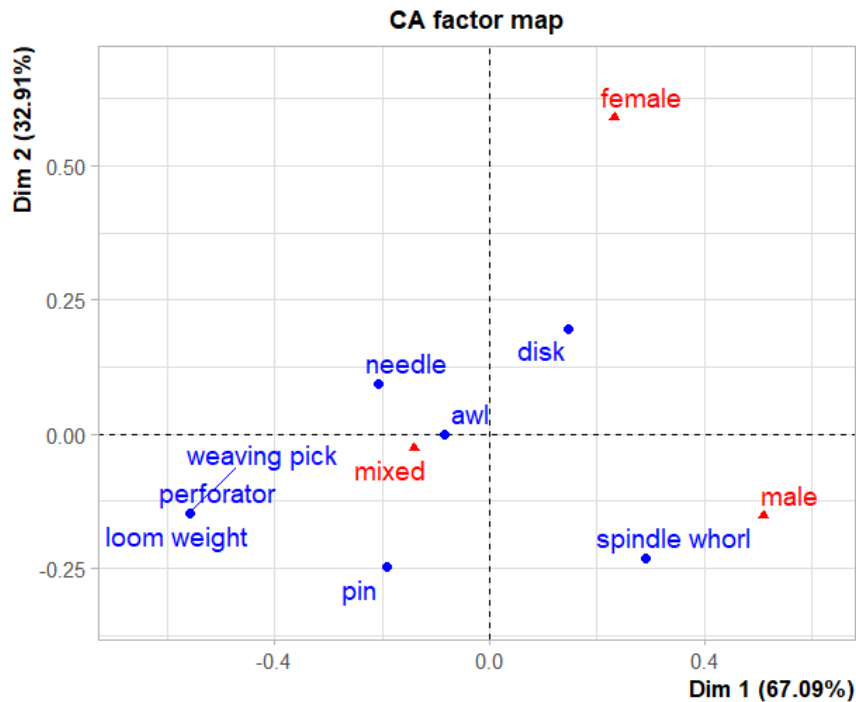


Figure 203: CA of weaving tools discovered in structures with burials

From the osteology, it could be identified that people being in the same position repetitively for their daily activity could affect the bone shape. Indeed, the bone can remodel and adapt to the position the individual needs. For example, the kneeling position for the weaving activity puts the foot toes in hyper-dorsiflexion. This repetitive position changed the bone morphology of the toes with the appearance of facets. From the few studies conducted on the skeleton, it could be deduced that only women had this particular bone remodulation (Maggiano et al. 2007, Bonde et al. 2005, and Ubelaker 1979).

The residential space could also have the presence of agricultural activities. Some orchards were planted near the households. For example, the well-preserved orchards found in Joya de Ceren contained mainly herbs and fruit trees. Women were responsible for the orchards' planting and harvest. The male members of the household were cultivating the milpa and communal parcels in fields at the exterior of the city. Mostly, only men prepared the soil for the plantation of seeds such as pumpkin, maize, and chili, and they harvested them. However, women could lend

a hand with the plantation tasks or harvest, as was stated in the ethnography. Both genders could have cared for the plants, such as watering them, giving them fertilisers, cutting the faded leaves, etc. (Arnauld 2014, Sheets 2002, and Stockett 2005). Evidence of agricultural activities was scarce due to poor preservation of the tools used, the multifunctionality of farming tools, and a lack of depiction in the iconographical media. From the Florentine Codex, eight illustrations depicted men as farming the milpa (planting and harvest) (Annex 5.2.1). Furthermore, animals were domesticated near the households. Women were taking care of them as they took care of their children. The deer, peccary, turkey, and dog could probably have been domesticated and/or taken in captivity. While women were domesticating animals near the households, men were hunting or fishing at the exterior of the site (Sharer et al. 2006, Alonso Olvera 2013, and Landa 1959). From the ethnography and iconography, few representations were available. These activities were seen in four ceramics and 14 illustrations from the Madrid, Dresden, and Florentine Codices, depicting men as hunters and fishers and women as taking care of animals (Annex 5.2.5 to 5.2.8) (Figure 204).

Agricultural activities	Men	Women
Farmer:		
Codices	8	0
Hunter/fisher:		
Ceramic	4	0
Codices	14	0
Domestication:		
Ethnography	0	Several mentions
Total	26	Unknown number

Figure 204: Table illustrating gendered agricultural activities based on codices, ceramics, and ethnography

Artefacts related to hunting or fishing activities were recovered in the sites under study, including arrowheads, blades, knives, net weights, points, and spears (Figure 205). Most of the hunting and fishing tools were discovered in residential structures, which comprised one arrowhead, 28 blades, seven knives, four net weights, and ten points. Six blades, nine knives, 14 points, and one spear were found in the civic structures. Ten blades, ten knives, one net weight, and seven points were retrieved from ceremonial structures.

Political structures and open spaces were locations where only a few traces of hunting and fishing activities could be identified. Five blades, five points, and four knives were found in political structures. One blade, one net weight, six points, and seven knives were present in open spaces. Most of the tools likely served multiple functions and may not have been limited to hunting and fishing activities.

To conclude, hunting and fishing artefacts were probably used by people living in the residential structures under study in this corpus. Blades, knives, and points could be used for hunting activities, but they might also have been multifunctional. However, net weights were tools mainly used for fishing activities.

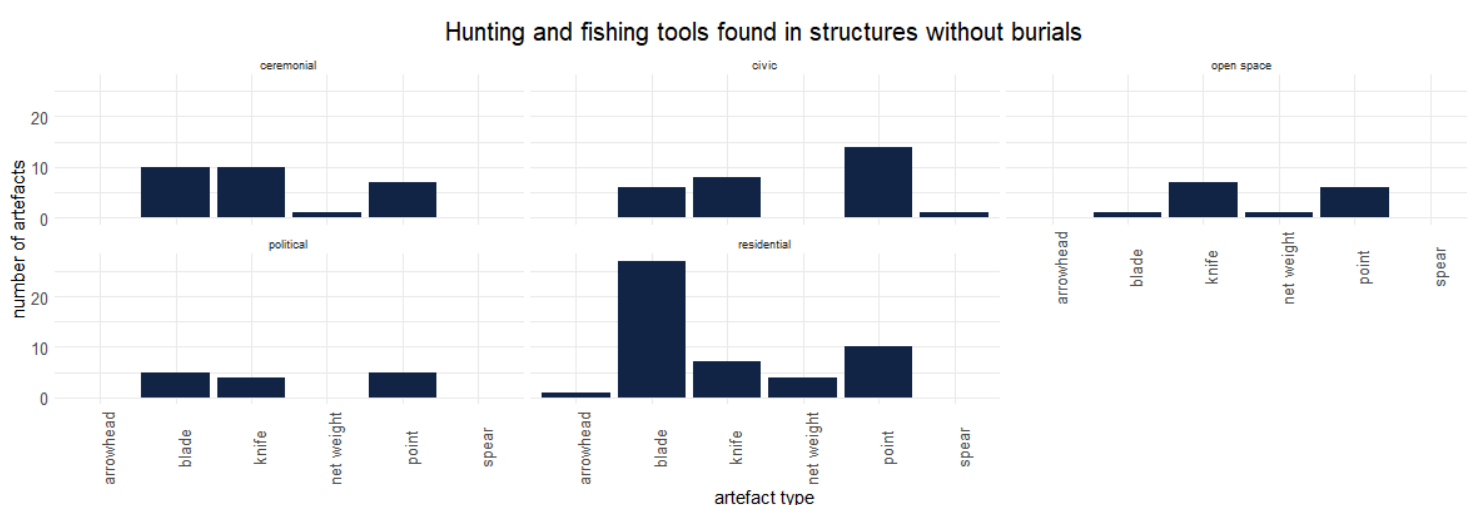


Figure 205: Histogram of hunting and fishing tools found in structures without burials

A further analysis can be done, such as the χ^2 test. The χ^2 equals 130.09, and the p-value is inferior to 0.05, being here equal to $3.009e-6$. The data is not linked randomly, and a CA can be elaborated.

The CA (Figure 206) indicated that blades and arrowheads were more commonly associated with residential structures, while spears were more closely linked to civic structures. Points had a shared use in civic and political structures, knives were found in open spaces, as well as in political and ceremonial structures, and net weights were utilised in both residential and ceremonial structures.

In conclusion, all types of structures featured multifunctional tools that could also be utilised for hunting and fishing activities. However, net weights might serve as

good indicators of fishing tasks found in residential structures, whereas they were present in lesser amounts in ceremonial structures.

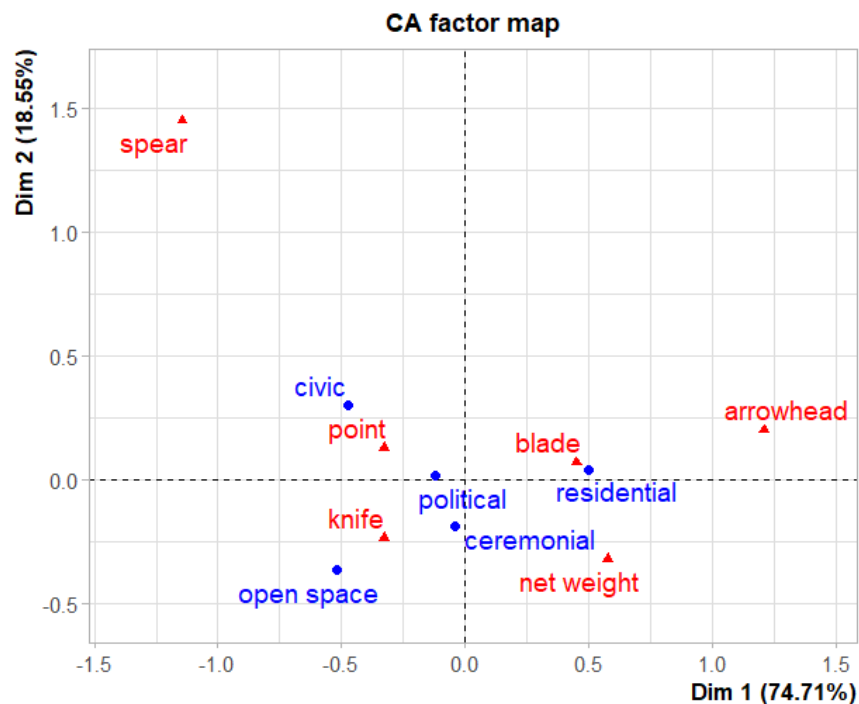


Figure 206: CA of hunting and fishing tools found in structures without burials

The hunting and fishing tools were found in structures with burials (Figure 207). Most of the tools were present in residential structures representing 38 blades (17 from adult burials of undetermined sex, five from female burials, two from male burials, and 14 from mixed burials), one hook (from mixed burial), one net weight (from adult burial of undetermined sex), 14 knives (six from adult burials of undetermined sex, one from female burial, three from mixed burials, and four from male burials), and 20 points (ten from adult burials of undetermined sex, five from mixed burials, two from male burials, and three from female burials). From the ceremonial structures, one bipoint (from mixed burial), one spear (from adult burial of undetermined sex), 24 blades (seven from adult burials of undetermined sex, 15 from mixed burials, and two from male burials), 25 points (nine adult burials of undetermined sex, four from male burials, one from female burial, and eleven from mixed burials), and 22 knives (ten from adult burials of undetermined sex, ten of mixed burials, and two from male burials) were recovered.

A lower number of hunting and fishing artefacts were found in civic and political structures, as well as open spaces. Two points (from adult burials of undetermined sex) and two knives (one from a mixed burial and one from an adult burial of undetermined sex) were present in civic structures. In the political structures, ten blades (three from adult burials of undetermined sex, four from mixed burials, one from male burial, and two from female burials), ten knives (three from adult burials of undetermined sex, one from female burial, one from male burial, and five from mixed burials), one net weight (from an adult burial of undetermined sex), and eleven points (five from adult burials of undetermined sex, one from male burial, one from female burial, and four from mixed burials) were discovered. Open spaces contained one net weight (from a mixed burial), three knives (two from adult burials of undetermined sex and one from a mixed burial), seven blades (six from adult burials of undetermined sex and one from a mixed burial), and eight points (six from adult burials of undetermined sex, one from a male burial, and one from a mixed burial).

In conclusion, blades, knives, and points were the most common artifacts associated with male and female burials. No specific gender was responsible for hunting and fishing activities; both could be involved in such practices. From the osteology, it could be interesting to make some studies of the upper body MSM to see if the men related to hunting or fishing activities had a strong asymmetry, as was suggested earlier.

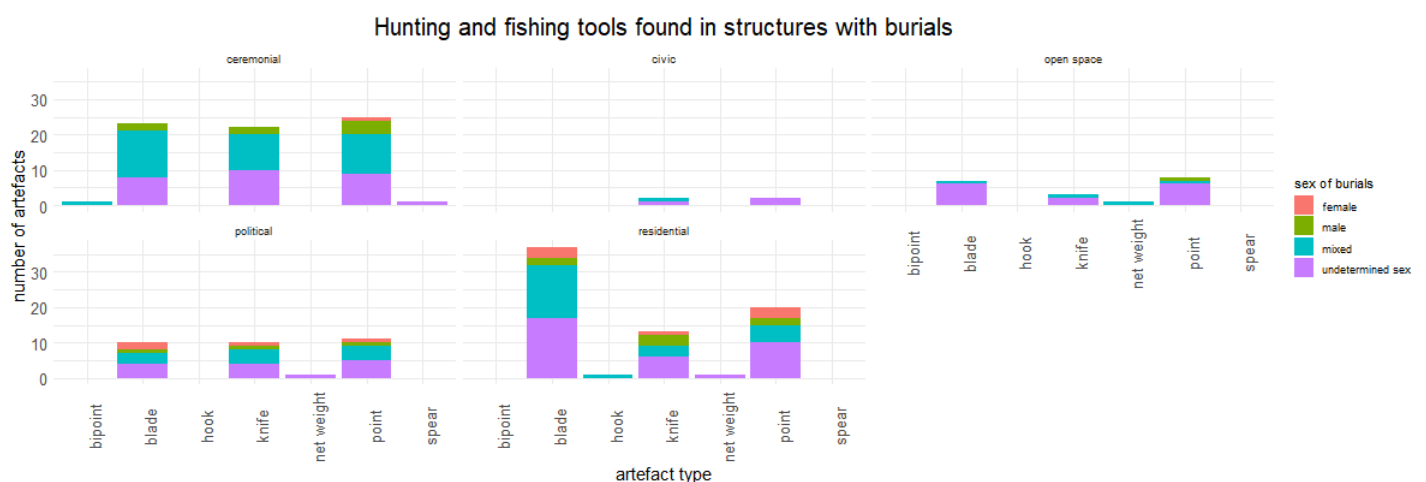


Figure 207: Histogram displaying hunting and fishing tools discovered in structures with burials

The next step would be to understand if a CA can be elaborated. For this, a χ^2 test is needed. The result of the χ^2 test is 100.65, and the p-value is 6.057e-5. The p-value is inferior to 0.05, suggesting that the data is not linked randomly. A CA can be performed. However, due to a representation of 100% of the data, the CA is superficial, and the histogram is sufficient.

To conclude, the residential space encompassed various activities executed by both genders or only one in households (Figure 208). Mostly, the activities present there are practised by women (cooking, orchards, textile production, and domestication of animals). However, men shared some tasks such as textile production, food consumption, crafting, and sleeping. The duties of farming, fishing, and hunting were mostly realised outside the city and by men. Within the household, it could be identified that some structures or rooms were not gendered due to the enactment of activities by both genders. However, in some cases, the space was gendered and segregated. Women and men could realise their activities in different locations.



Figure 208: Reconstruction of residential activities ([MUJERES Y ARQUITECTURA - MayaTech](#))

The following table summarises what could be expected from civic spaces. Here, the aim is to understand what are the main features and characteristics of them, such as the type of sites it appears, their location within the sites, the structures that had a political function, the types of artefacts mostly found there, the presence of burials, the gendered activities occurring there and finally the type of sources from which the information was taken.

	Residential space			
Type of sites	All sites			
Location within sites	Surrounding the core area, periphery			
Type of structure	Household (kitchen, workshop, platform, residence), single structure			
Type of artefacts	Lithic : -Mano -Metate -Knife -Point -Net sinker -Biface -Polisher -Scraper -Hammerstone -Loom weight	Ceramic : -Pot -Jar -Plate -Cup -Dish -Bowl -Spindle whorl -Disk -Figurine	Bone and perishable : -Stingray spine -Textile fragments -Pigments -Turtle carapace -Pick -Pin -Needle -Asta -Antler -Perforator -Animal bones and teeth -Seeds	Jade and shell : -Earplug -Necklace -Ring -Pectoral
Presence of burials	Yes			
Activities and gender	Men : -Feast -Feather craft -Farming -Hunting/ fishing	Women : -Food preparation -Service of food -Recollection of firewood -Recollection of water -Weaving/ embroidery/ sewing -Orchards -Domestication of animals	Both genders : -Ceramic production -Butchery /leather craft -Shell/ bone craft -Harvest -Taking care of plants -Planting -Dying of textiles -Spinning -Trade/ sell of textiles	
Sources	Iconography, funerary context, ethnography, osteology			

Figure 209: Table resuming the residential space characteristics and features

10.5) Example of gendered space within sites

This part of the doctoral dissertation will focus on the elaboration of maps identifying the gendered space of the visited sites by the author. This means that the different spaces (political, ceremonial, civic, and residential) discussed before will be related to one gender (blue for men, red for women) or both (brown). The men's spaces regrouped the civic-ceremonial structures. The women's spaces were composed of kitchens and houses where predominantly women's activities could be enacted. The category of both gendered spaces encompassed the palaces, the platforms for the performance of rituals, and the houses or household groupings in which no gendered activity dominated. The maps in question can be found in Annex 6. Some limitations appeared during the elaboration of the maps. Indeed, the function of various structures is unknown. The same structure could have multiple functions during its use. The exact location of the activities might be unknown: an activity could have been practised in a special room or on the patio. However, a lack of precise excavation data doesn't allow for more details. The data recollected by the author might not be complete (lack of accessibility to the resources, lack of data about the topic, and/or lack of excavation). Moreover, the sites were not analysed in the same manner. The primary and secondary sites were investigated with a focus on the core area, whereas the small settlements were studied in their entirety. These investigation differences might have an impact on the attribution of gendered spaces. The maps are also hypothetical of the gendered space in which the Mayas might have evolved in the past. In the following, the primary sites, secondary sites, and small settlements will be analysed.

The primary sites under study were Calakmul, Caracol, Coba, Copan, Dzibanche, Edzna, Palenque, Tikal, Uaxactun, Uxmal for the Classic period, Chichen Itza, and Mayapan for the Postclassic period. Lamanai was an example of a long occupational period. All the sites had a central core area where all the political and civic-ceremonial activities occurred. Around the core area were located the residences, more or less preserved, depending on their construction material and the status of their inhabitants. The core areas of the primary sites were composed mostly of men's spaces. Both gendered spaces were present. They could

be structures in which both genders evolved on a daily basis in the same room or room arrangements. However, it could also symbolise a segregated space in which one room was reserved for men's activities and another one for women's duties. However, this clear differentiation was not available or could not be identified in a straightforward manner. That is why no clear difference could be made. Women's spaces at primary sites are almost undetectable. However, it can be assumed that every household grouping or household might have contained a food preparation area. Women's spaces were placed on the maps where some evidence of cooking activities was recovered or where the archaeologists were mostly sure that activities related to women, such as those discussed in this dissertation, were located in the assemblage of structures. The women's spaces could have taken place within the same structure (the kitchen was placed at the end of a structure in a special room), or could have been a separate structure from the rest of the house, or the activities could have taken place on the patio. Some women's spaces could have been found near civic-ceremonial structures. In this case, the function of the women's spaces could have been to serve food or as storage, for example, for the other structures. Moreover, in some sites, depictions of women were placed in the core area in the main plazas to reinforce their political duties and make them more visible in this sphere of activities. The space mainly present in primary sites is the men's space. They are located directly in the core area. Both gendered spaces were present in the core and at the periphery. They were, however, less present than the first category. The women's spaces were almost not visible on the maps. However, it doesn't mean that they were not present. They might have had fewer private structures or segregated spaces for their activities.

The secondary sites under consideration here were Aguateca, Altun Ha, Bonampak, Ek Balam, Kabah, Kohunlich, Labna, Oxkintok, Quirigua, Sayil, Seibal, Tonina, Xpujil, Xunantunich, Yaxha, and Yaxuna for the Classic period, and Tulum for the Postclassic period. Dzibilchaltun was an example of a site with a long occupational period. This category of sites had a core area or more than one in which the civic-ceremonial structures were located. The structures were more dispersed in space. The men's spaces, seen as the focal point of the city, were placed in sectors or parts of the city. They were not all regrouped in one area of the site.

The men's spaces were, therefore, less present at secondary sites than at primary sites. Both gendered spaces were identified in more parts of the city than was the case in primary sites. Again, it could mean that one structure was sharing the space between both genders (the whole structure or some rooms), that one end of the structure was segregated to a gendered activity, that the inner rooms were used for sleeping and the outer space for the activities, or that different structure arrangements were used by both genders differently. Women's spaces were more detectable than in primary sites. They appeared near residences, household complexes, or civic-ceremonial structures for their service duty. However, they were still less present on the maps. As notified earlier, it could be due to a lack of evidence found while excavating, a lack of precise excavation report, or a lack of knowledge on how to deal with the topic (impossibility to attribute a function to the place or structure).

The small settlements were composed of Chan, Joya de Ceren, and Nacimiento. All three sites had dispersed structures. A small core area could be defined as the location of the men's spaces. Indeed, only a few structures could pertain to this category. Both gendered spaces were majoritarian. People living in small settlements were mainly farmers or craftsmen. Many structural arrangements composing households were discovered, and probably every structure could house one or more activities realised by the household members. Women's spaces were the most present compared to the other site categories. It can be supposed that some kitchens were a separate structure within the household, as was the case in Joya de Ceren with the finding of two kitchens, or that the household complex must have a space for preparing food that was yet to be defined precisely. Women could enjoy their own segregated spaces in small settlements to practice their activities more than in primary or secondary sites (more visible on maps). However, one must not forget that even if women's spaces were not that present in the first two site categories, it doesn't mean that women were less present.

To conclude, from the elaboration of maps showing the gendered space related to men's and women's activities, it could be seen that not every site had shared or

segregated spaces. Men's spaces were mostly seen in the core areas of the cities. The more the city was involved with civic-ceremonial and political activities, the more this space was important. On the contrary, the more the main activity of the site was farming or crafting, the more the women's or both gendered spaces were dominant. The periphery was mainly accessible to both genders, sharing the same structure for their activities or a different room or structure in a household for their daily tasks. In the core area, even though men's spaces could have dominated it, women were not absent. Some women's spaces or both gendered spaces were present in the core area. Women could probably not enter some structures or enact some activities, but they were serving or preparing for the realisation of the men's activities. The following schema is a hypothetical representation of the gendered spaces present in the core area and the periphery within the primary and secondary centres and small settlements (Figure 210). The percentages are approximately based on the visual expression of the different site maps and their gendered categories.

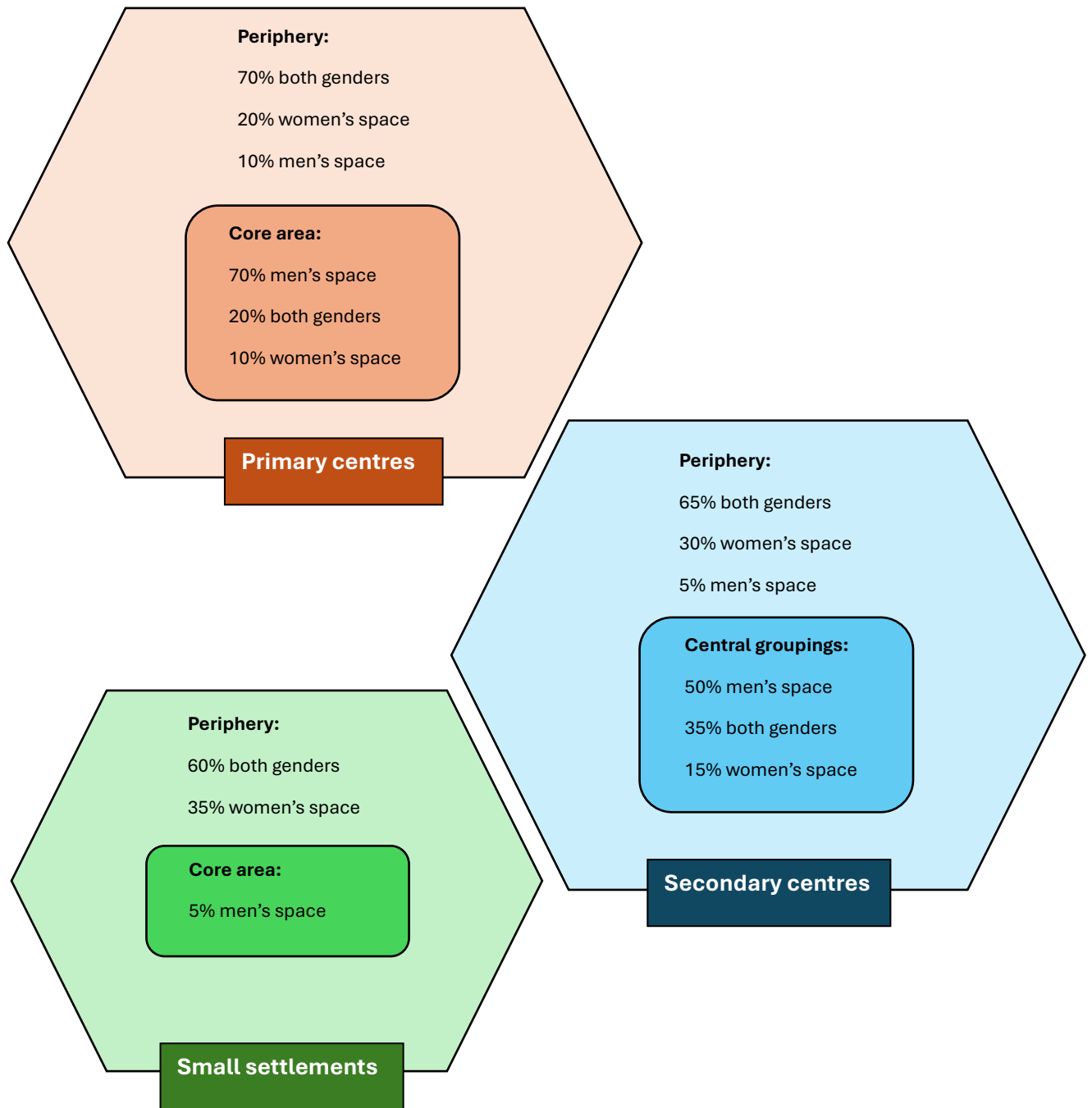


Figure 210: Hypothetical schematisation of gendered space in primary and secondary centres, and small settlements

11) Conclusions

This doctoral research focused on the gendered activities and spaces in the Maya civilisation from the Lowlands. The time frame was reduced to sites that evolved from the Classic and Postclassic periods. For this, the core areas of the 35 archaeological sites were under study and investigated in detail. Therefore, this part of the site will be taken as the main element. In contrast, the periphery, whose knowledge and identification were more blurry and not as informative as the evidence from its centre area, will not be considered. The target people mostly came from the higher social classes of the Mayan society. The multidisciplinary nature of this work comes from the use and analysis of iconography, epigraphy, osteology, ethnography, funerary contexts, and excavation reports coming from the published literature, the museums, and the visits on site.

The doctoral thesis started with a theoretical framework defining the key concepts.

- Power was the first concept. It is an ambiguous term that depends on the culture, place, and time. Power is a complex social network that is omnipresent (produced, repeated, and perpetuated). The use of power is always subjective and agential. This means that a person with power influences another individual or action. Political power is centralised and lies in the hands of a few people who could be in a leadership position. Through their oppression and control, they could influence others with their ideology and gain even further privileges. The state of powerlessness could qualify a person as ignorant, isolated, and divided from others.
- Dependence and interdependence were the following concepts. Dependency is a social condition in which two actors are bound to each other in an exchange-based reciprocity. Care, concern, and connection are the social conditions needed. One has more power and can ask the other one for some elements that the most powerful need in exchange for some goods. It is an agential situation in which the second individual follows the ideology of the first person. The

situation requires reciprocity and/or obligation. Different dependency types can exist (economic, socio-legal, political, and moral or psychological).

- Space was the following key concept. It is a spatiotemporal orientation perceived by the ego perception through time, cardinal points, and reference points. The space can be realistic, imaginary, natural (virgin and cultivated), or cultural (anthropogenic). For the Maya, the earth was a flat area composed of four corners and a central point. Certain scholars believe that atop the flat Earth were seven atmospheres and the sun, which pertained to the male sphere. Below were the water and fire levels and the moon, which evoked the female sphere of the cosmos. The space could be divided, and, in some places, various functions could have been practiced, such as ceremonies, politics, food preparation, etc.
- Gender was the last concept. In contrast to biological sex, gender is a social construct that depends on the culture and time period. However, the gender as man or woman (here, the other genders are not put into this analysis) has to be acquired through repetitive and daily performance. In this way, society will perceive this person as a man or woman and understand their identity. The body and actions of the individual are used to communicate and to show the social norms of gendered attributes. It is the society that dictates the roles and rules to follow if you are either a man or a woman. The gender is fixed during childhood with the Oedipal complex. Throughout life, people need to evolve through different sexual stages. Heterosexuality is seen as a symbolic order for society. The *sciencia sexualis* was created and inculcated into society to avoid incest practices. For women, reproduction can be seen as a handicap that doesn't allow them to achieve similar activities as men. Sexist discrimination can then appear.

Due to the different reception of the concepts in the Western and Maya worldviews, the author wanted to reflect on how society understood them and put them into action by the individuals. This also permitted us to understand the different mindsets and evolutions that could have biased the data during the Conquest period.

Three sections divided the analysis into architecture (1), artefacts (2), and activities (3).

- (1) Through the architecture, the aim was to understand how the Maya cities were built and planned, how the cities organised the different building types around the core area (domestic and non-domestic structures), analysing some architectural features (such as benches, vaults, and wall openings), and the public and private space (open spaces, cordholders, fortifications, stairs, and causeways). The architectural function of structures was visualised with maps of the sites under study. The objective was to understand how space was organised so that we could then analyse which space might have been gendered or not.
- (2) The section about artefacts dealt with the production of artefacts and how to understand their use. Where were these artefacts used, placed as heirlooms in grave goods, stored, or abandoned? For this, several tool categories were investigated (lithic, ceramic, bone, and perishable artefacts). Ornaments made of shell and jade, as well as textiles, were analysed. After that, the artefacts recovered from the Maya archaeological sites were placed within the map to show where artefacts were found and in which assemblage. The study of artefacts enabled us to investigate which activities were taking place in some structure and to associate them with a gender if they were discovered in a funerary context.
- (3) The last section focused on the activities. The objective of the section was to associate a gender with an activity. After analysing various multidisciplinary data, some activities could be gendered. The activities under study were textile production, multiple activities related to nutrition, and civic-ceremonial activities. Here, it can be seen that some activities were ambiguous and could be realised by both genders, and others had a definite gender.

The last chapter of this doctoral research was about interpreting all the data. The goal was to investigate which activities were taking place in which structures and were realised by which gender. For this, four spaces were taken into focus: political, ceremonial, civic, and residential. Every space was hypothetically gendered and applied to the Maya sites through maps.

In the following lines, five problematics were discussed in this doctoral dissertation.

How were the Maya cities organised?

The Maya cities were composed of an arrangement of buildings or groupings of neighbourhoods with various functions and open spaces. The archaeological sites had the presence of similar structures through a cultural unity within the Maya civilisation. Sites in which foreigners or those that were located near borderlands showed hybridity in architectural styles. However, each city is different in the way it transmits the power of the rulership and its ideology. The monumentality and stone monuments were evidence of it.

What can be deduced from the sites of the corpus is that the core area was planned. Indeed, the cities could have been located in advantageous locations such as near the sea, rivers, ravines, fertile soils, etc. The core areas could also be a reproduction of the cosmos and the *axis mundi*, in which the northern part of the city concentrated civic-ceremonial functions, the southern part was more residential, and the ballcourts symbolising the Underworld were placed in the middle of these parts. Some sites might have been planned in concentric circles. This means that the focal area concentrated on the more elaborate architecture and the more valuable functions of the city. Surrounding it was the periphery, which was constructed with more perishable material and had residential functions. Moreover, the orientation of the structures from the core area followed the cardinal points, stars, planets, or the highest points of the city, such as the pyramid temples. Mostly, this corresponds to a North-South orientation.

The city planners could have been the elites or the rulers. Indeed, two systems could have been seen. On the one hand, the top-down method was the general organisation of the core area by the rulership, which was executed and followed by society. On the other hand, the bottom-up method was the organisation of the

neighbourhoods by the elite or higher social classes of the grouping. The organisation and planning were then accepted and followed by the rulership. The major structures of a city (the core area) were rebuilt. This means that while excavating a structure, various construction chronologies were found. Every ruler had to appropriate their city to their ideology and ideals. For this, he decided to make some architectural changes based on the ancient builders. It permitted them to keep a connection to the past and their ancestors.

The structures present in the cities were of two kinds: domestic and non-domestic. The domestic structures encompassed the houses (single structure), households (compound of houses around a patio), and palaces. The materiality of the houses depended on their location within the city and the social status of their members. For example, visible residences in the core area were mainly made of stone and pertained to the elite. In contrast, the residences in the periphery were made of perishable material and belonged to the commoners. The palaces and elite houses could have a façade decoration. Generally, the shape of the domestic structures was rectangular. Ancestors or family members were interned in the domestic structure or within the open spaces. This created a link to them, and they could claim the residence as their property. Besides, within a household, several structures compose the residential area. Some independent structures could have been kitchens, workshops, or storage facilities. These could also have been part of the main structure when the structure was divided into various rooms, such as palaces, for example. Water management equipment was placed and constructed near domestic structures or open spaces. A chultun was a pit dug in the ground where the rainwater could be recollected and stored. Aguadas were big artificial water reservoirs. The canal was elaborated for fluvial transportation and water catchment. Some causeways could also function as an aqueduct and transport water from one part of the city to the other. Cenotes were natural caves filled with water.

The non-domestic structures were mostly placed within the core area of the city. Its variation of structure types (eleven in total) is greater than that of the domestic ones. We can divide them into ceremonial (oval structures, temples, E groups,

labyrinth, and men's houses), political (palaces and council houses), and civic buildings (administrative structures, ballcourts, temazcal, and marketplaces). Oval structures were placed near civic-ceremonial buildings and had a decorated façade. The specific function remains unknown until now. Temples were the houses of the gods and represented the cosmos. They were located near wide open spaces to enable a large part of the community to gather together and enjoy the symbol of its identity. Rulers were buried in some temples. The temples were the highest points of the city and could be seen from far away. Their orientation followed a North-South orientation. The E group was a temple arrangement composed of one temple in the front and an alignment of three temples in the back. Labyrinths were rectangular structures with narrow corridors and different floor levels. From the few sources, it could be said that they had a North-South orientation and could be used for the *rite de passage* by the priests and rulers. Men's houses were colonnaded halls located near the temples and ballgames. They were used to present the power of gender through their symbols of masculinity on the façades. They housed unmarried men from the elite to prepare them for the war and worship duties. The palaces could have been placed in the core area or its direct surroundings. The façades were sculpted. They were multiroomed and contained a bench that formed a throne. The council house was mainly rectangular in shape and had a mat motif on its façade. It was seen in the core area. It contained many entrances and benches to enable people to meet. Administrative structures were complex to identify. They could have been long gallery-type range structures flanked by many entrances. Ballcourts were I-shaped fields located near the plaza. On both sides were the stands for the spectators. Ballcourts were not present at every site, nor were the arrows and markers on the fields. This structure followed the North-South orientation. The ballcourts had an Underworld symbology. Temazcal is a sweat bath of rectangular shape. Canals were placed on this structure to evacuate the surplus of water. They could have been used individually or collectively (in residences or the core area). The marketplaces were challenging to identify due to their ephemeral duration and materiality. They appeared on open plazas near temples. Several causeways led to them. Wall enclosures could be found through LiDAR to protect or delimit their space.

Some architectural features were exclusively discovered in structures located in the core area of the sites under study, such as the vaults, benches, and wall openings. The vaults were time and space-dependent. They were present in stone buildings whose function was important for the city or in the residences of the elite members. The semi-elliptical form was the most used. Benches could serve as chairs, beds, thrones, or working areas. Their height and shape might vary. They were mainly present in the back or laterally in rooms. Bench use was time and space-dependent. Three wall openings were analysed in this dissertation. The shrine was a place to worship. It was mainly seen in civic-ceremonial and residential structures. The niches were opening in the walls or benches. It contained ritual objects or artefacts for daily use. The ventilation was used to provoke an air circulation to evacuate the smoke and to avoid humidity in the rooms.

Within a city, some spaces were private or public, and access to structures might have been restricted, controlled, and segregated. Public spaces could have been the plaza (wide open spaces) and the civic structures. The majority of the community could gather there and had no restricted access. Semi-public spaces could have been accessible only to specific people, such as the political structures. Finally, access to residences, ceremonial structures, courts (open spaces of residences and palaces), and patios (open spaces of residences) was restricted. Other strategies permit the control and segregation of space. Fortification could have been symbolic (to delimit a space), defensive (to protect important parts or goods), or environmental (such as a ravine). Causeways were means of communication between architectural groupings, parts of the city, and between cities. They could have been elevated and controlled by the elite. Small structures with windows could have served as a lookout. Stairs were a strategy to restrict access. They could have been monumental, elevating a platform, dividing a space, and separating the room's floor level. Finally, the cordholders were a method used to close a door. They could have been put inside, outside, or between structures and rooms. Their primary purpose was to gain privacy or to store special objects.

The archaeological sites of this doctoral research were categorised into primary centres, secondary centres, and small settlements. It could be analysed that primary centres had a planned core area. The various architectural groupings were linked through the causeways. The city centre was a place where the main activities and non-domestic structures were located. The power of the ruler and the identity of the community were transmitted and shown there. Surrounding it were the residences. The secondary centres were composed of a grouping of structures that were connected to each other by causeways. They had no main plaza but various places where the non-domestic structures were located. Around each grouping and surrounding were residences. The small settlements were composed of scattered residences made of households or independent structures. The focal point of the settlement is not always easy to find.

Were the activities differentiated between the genders?

The intent to understand which gender was involved with which activity was possible through the data recollected from the iconography, epigraphy, osteology, funerary context, excavations, and ethnography. The iconography present on stone monuments, ceramics, figurines, and codices was considered. The epigraphy gave hints about the titles the people had and also the activities they might have been involved in. Osteology enables us to look at the skeleton and the adaptation of the bones to the daily repetitive activities the person in question practiced. The funerary context was composed of the funerary treatments, which were mostly seen on elite or royal elite individuals, and the grave goods. The grave goods were artefacts placed with the dead person. It is associated with the tools this person was connected to. This means the activities she was involved in and the gender this person might have had. Even if the dead person didn't choose his grave goods assemblage, we can have a look at how society perceived this person and his identity. The excavation reports used for this doctoral research give information about the artefacts. Which artefact was used for what activity, and if they could have served for multiple activities? Some artefacts had a use wear, but others were symbolically placed and had the function of an heirloom. The ethnography was

composed of the observations made by the Spanish friars during the Contact period and by the author after a stay in a modern-day Maya community.

The artefacts under analysis were composed of different materials: lithic, ceramic, bone, and perishable material. Artefact assemblages could give information about the activities and space where they were used, stored, or abandoned due to an attack or natural disaster. These artefacts are discussed within the various activity types.

Five activity categories were investigated in this doctoral dissertation: political (1), ceremonial (2), civic (3), residential activities (4), and activities related to nutrition (5).

(1) The political activities were varied. The ruling elite could have enacted them.

The rulers were men and women, as it appeared in the titles of *ajaw*. Both could have ruled in their own rights even if more men were seen in this position. The creation of alliances, through marriage and polygyny, made it possible to obtain more allies, power, and territory to govern. The succession of one ruler to another was realised in a lineal (father to son) or collateral way (elder brother to younger brother). In various dynastic lines, it can be deduced that some women played a role in the succession and legitimisation of the right to rule. Indeed, some women came from more prestigious cities than men. Their power was more important. They appeared in the iconography as passing the crown to the successor or were mentioned in the epigraphic records rather than the father. Few women were able to rule in their own rights. However, they could be a regent in a crisis where the successor was not old enough to rule in his own rights. She could then take over the leadership and could be helped by shared governance. When women were not present in primary roles, they were always depicted next to the ruler. They supported him and had, in this way, a secondary role to play.

Other political activities than rulership could have been analysed. For example, the title *kaloomte'* probably played a role in warfare. Both genders held it. On

stone monuments, it was possible to identify men and women rulers with this title, humiliating captives while trembling them. Before the war, the city sent messengers to observe the enemy. They were mostly men. They reported their observation to the council house. There, the rulers, warrior leaders, and elderly people were present to elaborate on a war strategy. *Sajal* accompanied the ruler, who could be a governor or a war leader who was, in most cases, a man, but a few women could have enjoyed this title. After the decision was taken to enter into war, men began fighting. They were depicted with armor and arms. The arms probably in use were made of obsidian, silex, or shipped stone (arrow, point, biface, dagger, spear, etc). During the fight, men and women could have been taken as captives. However, men were mainly represented as captives, more so than women. Moreover, women could have played a significant role in warfare. Indeed, they could accompany the warriors to war, bring them good luck with prayers to the gods, prepare food, and help them to wear their armor.

The royal elite could have been identified through clothing, ornaments, grave goods, osteology, and funerary treatments. The clothing used by the elites could be reconstructed through iconography. Even if they could represent the ideal scene and not the strict reality, they gave some hints. The clothing was gender dependent. Men and women wore different kinds of clothes. Men mostly wore a loincloth and armor, whereas women wore a huipil and a sash and skirt. From the grave goods and iconography, it could be deduced that they wore ornaments made of jade and shells. The ornament assemblage could encompass headdresses, masks, noseplugs, lipplugs, earplugs, necklaces, pectorals, bracelets, rings, belts, and anklets. The skeleton of the elite people didn't show any bone remodulation or physical use. This means that they could have delegated some hard work to the servants or lower-class individuals. They mainly concentrated on ruling activities that didn't require bone reshaping. The funerary treatment was seen on elite persons. Indeed, their burial was the most elaborate and rich. The dead person was wearing some clothes (some textile fragments were recovered) or was wrapped in a bundle. The corpse was placed on a wooden litter covered with jaguar pelt from which only the jaguar's claws were preserved and discovered in burials. As grave goods, some sumptuous polychrome vessels were found whose purpose was feasting, trading, and

meeting other elite people. A mask or a utilitarian vessel could have been placed on the skull of the dead person to protect their identity.

- (2) The following activities we focused on were the ceremonial ones. On the one side, women could have an active role in ceremonial activities. Like the men, they could have been enacting rituals. Even in the iconography, they could have been the ones depicted practicing the rituals rather than the men. This could be the case for the bloodletting and the vision serpent rituals. For the bloodletting ritual, a stingray spine was needed to perforate the tongue or the penis. From the grave goods, it could be seen that they were associated with both genders. Sacrifices could have been enacted after rituals or the death of a ruler. Men, women, children, and animals could have been killed for their blood or hearts. This process left cut marks on the bones made by lithic tools such as knives, for example. Furthermore, both genders could be involved in making offerings. They could burn incense and copal. Incense burner and copal were found in grave goods pertaining to both genders. Excentrics could have been offered to the gods, too, even if their exact function remains unknown. The function of the priesthood and divination could be realised by both genders. Artefacts such as mirrors made of polished stones were recovered in grave goods pertaining to men and women. One miniature ceramic exposed in the Museum of Berlin depicted a woman priestess. Finally, according to colonial sources, the temple keeper could have been of either gender. Indeed, unmarried elite men were responsible for the temples. Unmarried, menstruating, and elderly women could also be involved in this task. Only a few testimonies and proofs were found about this activity. During the rituals, some dances were performed. Through the iconography, it could be noticed that both genders might have been evolving on stage.

On the other side, women could have a passive role in ceremonial activities. Some rituals were enacted by men only. Women, through their nature and ability to menstruate, were seen as taboo and able to disturb the proper execution of public rituals. Women likely had their own ritual spheres, which remain invisible in archaeological data. They were segregated from sacred places. Only elderly women who are no longer seen as able to reproduce could be accepted

in rituals and sacred places. However, women were still indirectly present in rituals. For example, they prepared the artefacts and goods needed to enact the ritual by the men. This could be the case of the enema ritual. The men needed to put a tube with hallucinogenic products into their behinds. The women prepared the tube and helped to put it in their bodies. These bone tubes were exclusively found within male grave goods assemblages. Women prepared the feast for the gods. The men then placed food in the temples for the gods. Women also helped the gods to recreate myths, such as the dressing scene of the Maize God. During the rituals, music was played. From the ethnography and iconography, it could be supposed that only men played instruments. The musical instruments in question were the figurines elaborated as whistles, copper bells, turtle carapaces, shell trumpets, and drums. The figurines might have been fired and molded by women. The elaboration of a bundle that kept the ritual paraphernalia together during rituals was done by women. They wove them, and through their use in rituals, they made the women symbolically present. In different iconographical depictions, the women also held objects next to the men while they performed the rituals. Mostly, they were holding vessels, masks, or mirrors.

- (3) The civic activities were the following themes. Under civic activities, the author wanted to emphasise the activities that included a major part of the community. The administrative activities were recording the storage, the tribute payment, the painters, and the scribes. The artefacts needed for these activities were the cincel, stamps, codex fragments, ground stones for grinding pigments, and containers such as a pot to hold the ink or colour. From the iconography and grave goods, it could be seen that both genders were involved in these administrative duties. However, most men were realising them. The title of bookkeeper (*aj k'uhun*) was used by men and women.

Elite people practiced the ballgame for negotiation, competition, rituals, or entertainment. From the iconography on stone monuments, ceramics, figurines, and codices, it was possible to ascribe a male gender to the ball players. The yoke, a hip protection, was rarely found in the Maya Lowlands. However, when it was found, it was linked to the men. Even though women could be players

nowadays, from the data, only men were playing. The ballcourt was constructed with stands for spectators. The spectators could have been men and women from the community. One ceramic assemblage showed the ballgame with its spectators.

The marketplaces were spaces where people could come and exchange their goods. Only a few data are available for the sellers, the transport of goods, and the control of the markets. The Spanish friars' testimonies and the mural of Chik Nahb in Calakmul were evidence of ancient Maya market scenes. The people involved in mercantile activities wore hats (as can be seen on ceramics). Women were seen selling food products such as atole, tamales, tortillas, etc. The men were probably selling crafting goods. However, the clear distinction between the goods sold by both genders was not fixed. The transportation of goods was realised by both genders, even if men were mostly depicted as the ones transporting objects. The marketplaces were also probably controlled by the elites. One proof of this duty was seen in Calakmul with the mural of Chik Nahb, where a woman had this role.

- (4) Next were the residential activities. Residences were locations where various activities took place. Workshops of different kinds were taking place there. One activity that was of special attention was textile production. This task was ambiguous in its gendered attribution. On the one hand, weaving, embroidery, and sewing were done exclusively by women, as seen in the iconography (on figurines), epigraphy (with the title *jalam*), and ethnography. The grave goods, such as spindle whorls, needles, pins, batten sticks, awls, disks, and perforators, were found in women's burials. The kneeling position for the weaving task modified and reshaped the bone facets of the toes. This was only observed on female skeletons.

On the other hand, men could have been involved in some steps of the textile production *chaîne opératoire* while its intensification increased. In fact, some textile implements were found in grave goods associated with men. They might have been elderly men, disabled men, members of the household, or children.

They might have done the harvest of cotton or maguey. The spinning of the thread and its dying might have been the following steps. The end product was then sold, exchanged, or given as tribute. All these steps could have been realised by both genders. The end product of textiles could be seen on stone monuments as worn by the individuals, and on ceramics as trade or tribute goods.

- (5) Finally, the activities related to nutrition were analysed. The preparation of food was realised by women. Indeed, from the iconography and ethnography (ceramics, codices, and testimonies), it can be seen that women were involved in grinding maize. This was the essential step for all the food production tasks. Metate and manos, if they were placed in grave goods, were in women's burials. From the osteology, it could be noticed with the musculoskeletal attachment that the woman's upper limb was used symmetrically. Both arms needed the same strength. This could be due to the grinding activity. For food preparation, various other side activities were required, such as the recollection of water and firewood. These tasks left no evidence except briefly in the modern Maya communities and the ethnographies of the Spanish friars. Mostly women or children were doing these tasks. Salt and honey were important additions to the daily diet. The salt was recollected by women or traded by them. Honey was produced by stingless bees and recollected by women. Beehives were preserved and associated in a few grave goods with women. Animals were also domesticated. They were cared for by women. From the leftovers of the animal or food, the bones could have been crafted as tools, the skin could be used as leather, and the shells could be used as ornaments or tools. The men were involved in fishing or hunting activities. Some grave goods recovered included net sinkers, arrows, knives, and spears. Both activities needed a throwing capacity, which could have been deduced from the asymmetrical upper limb. One arm was stronger than the other. Hunting and fishing were seen in the iconography of ceramics, codices, and ethnographic sources. Men might also have been involved in butchery activities. Moreover, the production of ceramics and figurines might have been fired in the same fireplace as the food. Here, the

women could have had the responsibility, or both genders could have been involved in it. The sources are not clear about the gender attribution.

The service of food was done by women. According to colonial sources and contemporary observations, it can be said that men and women ate at different times and places. Indeed, women needed to make sure that all the family members had enough to eat before they could start eating. The artefacts required for food preparation and consumption were made of perishable wood or fruit shell artefacts. However, ceramics played an important role as kitchenware. Utilitarian ceramics such as plates, bowls, jars, and pots were used to store and cook food. The sumptuous ceramics were decorated and painted. They were used to serve food and for feasting events. Also, lithic tools such as knives might have been used to prepare food.

Agriculture was an activity practiced by the majority of the inhabitants of a city. Agriculture could be investigated through the presence of raised fields, terraces, milpa, and orchards. The environment was managed to enable more soil and resource efficiency. The use of natural fertilisers and the slash-and-burn methods increased crop production. The milpas were fields located outside the city containing maize, chili, and pumpkin. The milpa was defined as a male space in the data. However, women could lend a hand in some steps of crop production. Planting and watering could have been done with the help of women. Some seeds were found in grave goods associated with women. It could have a symbolic meaning for the reproduction and birth ability of women, such as the earth. This could be the case due to the social status of the woman buried. Elite people might not have taken part in farming activities. The harvest might have been a man's duty. The orchards were located near the households. They were defined as the women's space. Fruit trees and herbs were planted there. Women were taking care of the planting, watering, and harvesting. The evidence of farming activities was scarce. The ethnographies of the Spanish friars, the practices of Maya communities nowadays, and the few codices were considered for gender attribution. The artefacts used by the farmers might have been made of perishable material and not present in the artefactual record found during excavations.

The diet of the ancient Maya can be reconstructed through different methods. On the one hand, the destructive method was the carbon and nitrogen isotopes taken from the tooth enamel. On the other hand, the non-destructive method of the residual analysis of vessels could be used to understand what the vessel contained. In addition, the diet could also be analysed through the iconography of food products on the ceramics, on the mural of Chik Nahb in Calakmul, and from the ethnography. A diet depends on the available resources, the culture, the status, and the gender of the person. In the Maya civilisation, a high juvenile mortality rate was observed. These rates were higher in big urban centres than in small settlements. Indeed, the quality of life was more complicated to organise in big cities with waste and water problems than in small settlements. Malnutrition and nutritional deficiency were also the causes of mortality within the population. Some essential vitamins or iron were missing during the childhood of a person. Diseases could then have better chances to kill the person due to a poorer immune system. The diseases and health problems could be investigated mainly through the teeth. The diet was different for the elite and the commoners. The elites could enjoy more varied food through the trade of exotic goods. However, elite women had a poorer diet than elite men. They consumed more maize products, while the men could enjoy more meat products. The commoners had a less varied diet but remained unchanged over time. They produced what they consumed. The elite was dependent on wealth and crisis periods. During a crisis, their diet was less varied due to fewer trade exchanges. As a consequence of high carbohydrate consumption, women had more caries apparitions than men.

Examples of archaeological site categories and their main activities were discussed. The primary sites were places in which meetings and decisions were taken. Several elite people were present through the recovery of beauty products, jade and shell ornaments, and special funerary treatments. Various rituals were enacted. The ballgame was played. Administrative activities also took place there, including tasks for the scribes and painters. The inhabitants of these sites were involved in textile production. From the investigation, activities such as workshops,

food preparation and consumption, and agriculture were less visible, but it doesn't mean that they were not present. The secondary centres showed a lesser amount of activities related to the administration and the enactment of rituals. The rulership enjoyed fewer funerary practices. However, the workshops of different kinds, fishing, and figurine production were more present. Again, agriculture, food consumption, and preparation were present but not as visible as the other activities. The small settlements' main activities were related to food preparation, agriculture, and workshops. Even if civic-ceremonial and political activities were not the priority in the small settlements, it could mean that they were practiced at a lower level.

Were the spaces in the Mayan society gendered?

The activities were taking place in specific locations of the city and/or in specific structures. The activities were gendered, and it is more than probable that the spaces were also gendered. A different spatial gendered organisation could be observed.

- Same room. An activity could have occurred in one room where other genders could have realised other tasks in the same room.
- Same structure and rooms. An activity could have been practiced in one structure. Other activities could also be realised in the same structure by another gender.
- Same structure but different rooms. An activity could be involved in a specific room of a structure, while other genders and tasks occupied other rooms of the same structure.
- Same open spaces. An activity could have been practiced in open spaces such as a court or plaza, where other activities could happen next to it by other genders. It could also be possible that the different activities were segregated within the open spaces. One activity was done on the east side of the patio and another on the west side.
- Different city parts. An activity could be enacted in a part of the city or neighbourhood groupings, while other activities were done in other parts of the city or neighbourhood groupings.

The different functional spaces of the core area of cities were under study here. It encompassed the political, ceremonial, civic, and residential spaces. The political space was ascribed to two types of structures: the palaces and council houses. A palace was a multifunctional structure. It housed the rulership and his family. He practiced his political duties there, such as leading the community and showing power and strength through his dynastic line and deeds. Both genders were evolving in this space as rulers, humiliating captives, helpers, and captives. The council house was a place for meetings and decision-making processes. Messengers, warriors, and elite people were conveyed to elaborate warfare strategies, for example. The political space was semi-public. It allowed only definite individuals. Even if women were present in this space, mostly men took care of the political activities.

The ceremonial spaces could have been present in temples or residences. Temples had the most restricted access. Only the priests or rulers were allowed to step inside. From the colonial sources, it was stated that women were undesirable near sacred places such as temples because of their menstrual cycle. However, unmarried elite men and virgin and elderly women served the gods with offerings, feasts for the gods, and took care of the temples. Both genders were involved in the priesthood and divination. Rituals could have been realised by women only, men only, or both genders. Some could have been practiced in temples, and others could have been part of domestic rituals. Both genders performed dances, whereas playing musical instruments was reserved for men. Moreover, women also had a passive and symbolic role in rituals. They could have prepared foods, goods, and artefacts for the men to enact the rituals properly. The ceremonial spaces were mostly accessible to men, whereas women were more active in the residences to prepare the rituals.

The civic spaces were ascribed to three structures: ballcourts, marketplaces, and administrative structures. The access to these structures was open and accessible to a large part of the community. Ballcourts were the locations of the men's ballplayers. Women could have been present as spectators. The marketplaces were

hard to identify and were mostly made of perishable material. However, both genders sold goods, bought items, and transported them. The elite men and women could have controlled them. Administrative structures were places of storage and tribute. Scribes and painters of both genders were involved in these activities. The civic spaces were ascribed to a men's space due to their majoritarian duties there. Women were not excluded from them, but their number was lower.

The residential spaces were composed of households. The access was restricted and reserved for the household members and their visitors. Households were places in which multiple activities were enacted. In the kitchen facilities (in the patio, room in one structure, or isolated structure), the food was prepared by women and consumed by the household members. The recollection of water and firewood was done by women or children. The firing of ceramics and the domestication of animals might have been women's activities. Butchery, hunting, and fishing could have been men's tasks. Both genders could have been involved in the leather, bone, and shell crafting activities. Textile production was a duty that required different genders to perform various tasks. The harvesting, spinning, dying, and selling of the end product could have been activities undertaken by both genders. The weaving activity was exclusively done by women, and agriculture required both genders. Women were responsible for the orchards. The milpa was a man's duty, but women could give a hand with the planting and watering tasks. The residential space could be qualified as a woman's space due to the number of tasks they realised there. The men were also present, but their activities were less practiced in this part of the city.

Therefore, it could be hypothesised that the men's spaces were ascribed to the civic-ceremonial structures. The women's spaces were related to the kitchen and independent structures. Both genders were present and involved in activities in palaces, residences, and platforms. Some results could be observed when applying these gendered spaces to the archaeological sites from the corpus. The primary centres were mostly composed of men's spaces. Both gender spaces were present, but in lesser amounts. The women's spaces were almost not discernible. This doesn't mean that women were absent. Their space was not clearly seen and

segregated as the men's spaces. The secondary centres had as many men's spaces as both gender spaces. The women's spaces were more visible than in the previous site category. Small settlements had a majority of both genders and women's spaces. The women could enjoy their own structure to practice their activities. Men's spaces were almost not present. This doesn't mean that men were not present. Their duty was not segregated to a particular space of the city or structure.

How was the relationship between men and women?

The relationship between men and women in realising their daily tasks was of a different kind. In the Maya civilisation, most activities were equitable, complementary, and interdependent between men and women. Some of them were asymmetrical. These relationships could have been identified from the gendered attribution of activities.

- Equity. If men and women were both involved in the same activities, their relationship was equitable. Both had the same power and freedom. No one influenced the other more. For example, rulers, scribes, painters, and priests were tasks practiced by both genders.
- Asymmetry. Men or women were involved exclusively in one specific activity, and the other gender was excluded. Here, the gender realising the activity could have been qualified as part of the gendered identity. For example, the weaving activity and food preparation could have been activities done by women. They could contribute to their identity. Ballplayers and warriors were seen as men's duties and part of male attributes. One gender had more power and dominated the relationship. The person was dependent on the activity the other gender was doing. The relationship is, in this case, asymmetrical.
- Complementary and interdependent. Men and women are ascribed to different tasks, but no one could realise their duty without the work of the other. Both genders are needed to have a complete end product. For example, in food production, the women cook and prepare the food that the men plant, harvest, and hunt. If one gender is absent, the end product can't be done. It is an exchange of unfinished tasks. Each gender is excelling in their part of the job.

Both are influencing the result of the end product. The relationship is complementary and interdependent.

Can we still say that the dichotomy of women being inside the house and men being outside is true?

As it could be seen in this doctoral research, the dichotomy of women as present in the residences and men as present in the public spaces is not true for the Mayan civilisation. It could be supposed that the women's activities realised exclusively by them were located in the residential space, so in the households. Activities reserved for the men were located outside the household area. This view could have been taken for granted by the Spanish friars during the Conquest period and biased the reality of the gendered space organisation. The analysis and investigation of the gendered activities showed a different view. Most of the activities could have been done by both genders. Even if one gender might have been more often present or represented in the data, both genders were able to enjoy the same titles, functions, and spaces. The Maya civilisation had a gendered activity that was based on equity and complementarity. The gendered spaces are not as clearly organised as men outside the house and women inside it. Both were present in different numbers in all the spaces composing the city. For the author, this dichotomy no longer applies to the Maya civilisation.

Future research

Future research themes that could enable an increase in knowledge of the fields used in this doctoral dissertation could be as follows:

- Increase the research on the Maya human skeletal remains. It could be interesting to elaborate more on strategies for identifying activities from the bones and muscles. Which parts of the skeleton are more reliable for this kind of analysis? What could be the different methods that could be applied to it? From the bones, a lot of information can be investigated. For example, non-destructive methods can be used. They enable the analysis of biological sex,

age, injuries, diseases, funerary treatments, and activities. Moreover, destructive methods can be applied to study the isotopes, DNA, bone volume and morphology, hormones, breastfeeding time, and menstruation. Another way to give life and voice to the dead could be to reconstruct their face and how they might have looked. It brings more proximity and connection to these people for the viewer. In the Museo del Mundo Maya de Mérida, some reconstructions of people were done, and they were telling their stories and how they lived.

- It would be interesting to investigate the diet of all the well-preserved burials found in Maya sites and understand what the dynamics of food consumption between genders, social classes, and environment were. Through the isotopes present in bones and teeth, it is possible to understand what they ate and what the fauna and flora of the region were like. Some exotic goods could be indications of trade and exchange of goods coming from different environments than the ones the people lived in.
- Increase the knowledge about the spatial organisation and use. Using chemicals to detect marketplaces, for example, could be a starting point to analyse whether some other chemicals could make some evidence appear of areas used for different functions.
- It would be interesting to understand better how the periphery of the cities worked. How were they organised? Which structures were present? What was the extent of the whole city? Which activities were present at the periphery? Those questions could be answered using new technologies such as LiDAR. Another type of material could be created to detect or be sensitive when the place contains perishable material properties.
- Increase the visibility and accessibility of excavation reports and data in a collective dataset. For example, a data set only for the iconography of the Maya civilisation could be elaborated. This would allow more clarity for people looking for iconographical data. For example, the University of Bonn has an ongoing project about a data set combining the site information, image archives, glyphs, and bibliography of the published literature about the sites. This dataset will help people in the future with their research.

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