



Master's thesis

Catharina Eleonora Santasilia

Investigations of a Late Classic elite burial at the summit of
Structure B1 at the site of Cahal Pech, Belize



Academic advisor: Tove Tybjerg, secondary advisor: Inge Schjellerup

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at the site of Cahal Pech, Belize

by

Catharina Eleonora Santasilia

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Academic advisor

Tove Tybjerg

Lector at Department of Cross-Cultural and Regional Studies

Secondary advisor

Inge Schjellerup

Project senior researcher at the National Museum, Copenhagen

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Abstract / Resumen / Résumé

English:

In the summer of 2011, I supervised the excavations of an elite Maya tomb (Burial 7) at Structure B1, the middle of the Eastern Triadic structures along Plaza B, at Cahal Pech. Cahal Pech is a middle sized ancient Maya center, located in western Belize. The tomb has been dated to the transition between the Early Classic and Late Classic period (c. AD 600 – 700).

The tomb contained two complete individuals, who seem to be of foreign origin, which is indicated by different interment rituals than earlier attested elsewhere at Cahal Pech. Additionally, human remains from at least two other individuals were located within the tomb. The tomb contained a large quantity of grave goods, which testify to the trade and exchange tendencies during this period, as many of the objects origin from considerate distances. Furthermore, several of the objects indicate possible association with professions held by the elite Maya.

Based on the excavations, this thesis aims to investigate how Burial 7 can help shed light on the Maya who lived at Cahal Pech during this period. I have argued a possible sociopolitical relation and exterior influence from other ancient Maya centers.

I further discuss the social situation in Belize today, through interviews with people who have different approaches to Mayan culture, history and archaeology. I look at possible ways to increase the interest of the population in order to possibly find a better solution for preservation of the Maya culture in a diverse country like Belize.

Spanish:

En el verano del 2011 participé como supervisor en la excavación de una tumba de la elite maya (tumba 7) en el templo número 1, que queda en la mitad de los tres templos al Oriente de la plaza B en Cahal Pech. Es una ruina maya de tipo mediano en el Occidente de Belice. La tumba se puede fechar en la transición de los periodos temprano clásico y la parte última del periodo clásico (cerca DC. 600 - 700).

La tumba contenía dos personas completas, que a primera vista no pertenecían al grupo de pobladores locales, pues la tumba claramente testifico una tendencia muy diferente a las tendencias funerarias que anteriormente fueron certificadas en las excavaciones de Cahal Pech.

Fuera de eso se encontraron huesos de al menos dos otras personas. La tumba era especialmente rica en ofrendas, que atestiguan que en este periodo se desarrolló un intercambio y comercio. Cuando diferentes objetos solo se pudieron adquirir en lugares lejanos, y muchos de ellos claramente pueden asociarse con diferentes oficios.

Como punto de partida y con los antecedentes antes escritos, yo quiero con esta tesis probar e ilustrar como en la misma excavación de la tumba en el templo1 arqueológicamente ha ayudado a entender más la cultura maya en este periodo antes descrito. Al mismo tiempo argumentó por las posibles relaciones social-políticas que se hicieron valederas en este periodo y cuales probabilidades tuvieron influencias externas.

Además aclaró en mi tesis la actual situación social en Belice, y puedo documentar esto con entrevistas con personas con diferentes perspectivas al cultura maya. Con este punto de partida traté de encontrar posibles soluciones al futuro para despertar el interés de los pobladores locales para mantener las ruinas mayas y el conocimiento hacia la cultura maya.

Danish:

I sommeren 2011 deltog jeg som supervisor i udgravningen af en elite maya grav (Burial 7) i Tempel B1, som er det midterste af tre østlige templer langs Plaza B på Cahal Pech. Der er tale om en middelstor mayaruin i det vestlige Belize, og graven dateres til overgangen mellem den Tidlige Klassiske og den Sen Klassiske periode (ca. AD 600 – 700).

Graven indeholdt to komplette individer, som umiddelbart ikke har tilhørt den lokale befolkningsgruppe, idet graven tydeligt bevidnede anderledes begravelsestendenser end tidligere atteret i grave fra Cahal Pech. Herudover fandtes knogler fra mindst yderligere to personer. Graven var særdeles rig på gravgaver, som bevidner, at der i denne periode har fundet en del udveksling og handel sted, da adskillige af objekterne kun har kunnet erhverves langvejs fra, og at mange af disse tydeligt kan associeres med forskellige professioner.

Med udgangspunkt i ovenstående, vil jeg med dette speciale forsøge at belyse, hvordan selve udgravningen af grav i Tempel 1 arkæologisk har medvirket til yderligere forståelse for mayakulturen i nævnte periode. Samtidig har jeg argumenteret for mulige socialpolitiske forhold, der har gjort sig gældende i perioden, og hvilke sandsynligheder der har været for indflydelse udefra.

Derudover belyser jeg i mit speciale den sociale situation i Belize i dag, og har til understøttelse af dette, interviewet folk med forskellige synsvinkler til maya kulturen. Med dette udgangspunkt har jeg forsøgt at finde frem til fremtidige mulige løsninger for at vække lokal befolkningens interesse for bevarelse af mayaruiner samt indsigt i mayakulturen.

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Without Dr. Jaime Awe, this thesis could not have been written. I am forever indebted to him for the opportunities he has given me and his trust in me. I am grateful to Jaime, his wife, Myka Schwanke and their two children, Kellen and Kai, who have made my archaeological experience and research in Belize so enjoyable. I would like to extend my gratitude to my amazing Belizean friends, who have all contributed with hard work to the research for this thesis: Jim Puc Jr., Jim Puc Sr., Antonio Itza, Gedisa Avella, Jorge Can, and to all the crew associated with BVAR.

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I would like to dedicate my thesis to my late grandfather Kaj Ove Berend Pedersen (1943-2007) for having been the rock in my life. Thank you for always having believed in me. I wish you were here to experience my graduation.

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Chapter 1: Introduction

1.1. Introduction

This thesis is focusing on excavations conducted at the ancient Maya city, Cahal Pech, located in western Belize. Belize is a small country, located between Mexico and Guatemala in the Yucatan Peninsula, on the Caribbean Sea (fig. 1)¹.

In 2011, a tomb was uncovered at the summit of Structure B1 at Cahal Pech, designated Burial 7, and dated to the transition of the Early Classic period and to the start of the Late Classic period (AD 600-700). A large quantity of grave goods was uncovered, among which several were rather unique. My curiosity urged me to investigate the internments of the individuals within the tomb as well as how the tomb was built as the answers could help shed light on our general understanding of the Maya. This thesis is based on the interpretation of the grave goods found within Burial 7.

1.2. Aim and Objective

The specific questions my thesis will answer are:

1. How can the archaeological investigations at Structure B1 contribute to the understanding of the Late Classic Maya in the Lowlands?
2. What new light can the interments of Structure B1 at Cahal Pech shed on the Classic Maya sociopolitical situation of the elites who were buried at Structure B1 at Cahal Pech?
3. Can the grave goods uncovered from Burial 7 at Structure B1 help to reconstruct the professions of the interred as well as the interregional trade of the Late Classic period?

I will further look into the social situation of the country of Belize today and determine if archaeology can help to preserve Mayan culture and heritage.

1.3. Method and Theory:

This thesis consists of seven chapters: Chapter 1 is an introduction to the chosen topic of my thesis, and orientation of the modern environment where the main investigations took place. Chapter 2 provides background information for the reader to get a better understanding of ancient Mayan culture. Chapter 3 introduces to previous archaeological investigations conducted at the site of Cahal Pech as well as at structure B1. Chapter 4 describes the caches and Burial 7, along with a review of their contents and an analysis of the human remains. Chapter 5 analyses

¹ All figure numbers are referring to Appendix 1, unless otherwise stated

the grave goods. Chapter 6 is a discussion of the objectives of my thesis, and Chapter 7 is the conclusion.

My archaeological theoretical approach originates in postprocessual archaeology or interpretive archaeology which developed during the 1980s and 1990s with such archaeologists as the British Ian Hodder and American Mark Leone (Renfrew and Bahn 2004: 44-45, 49). Although I do not believe one single theoretical method can be used alone, and that there is no single correct interpretation, at least not when dealing with the past. I try to focus on the fact that subjectivity is unavoidable when focusing on heritage. I believe the best approach is to get the opinion of specialists, and as an archaeologist, I like to be able to confront epigraphers, ceramists, iconographers etc. on their stance on certain matters which, in return hopefully provides the optimal solution for interpretation.

Postprocessualism followed processualism, as the name indicates. Processualism had been initiated in the 1960s by the archaeologist, Lewis Binford who had finally demanded that archaeology needed to start explaining things and not only describing them, and to incorporate the philosophy of science where valid conclusion and hypothesis should be able to be tested (replacing Evolutionary Archaeology: the change through time) (Renfrew and Bahn 2004: 40-41, Sharer and Ashmore 2003: 92-93). This was a step forward to the modern conception but something was still missing: the individual – whose thoughts and actions needed to be incorporated (Renfrew and Bahn 2004: 220, 494). Ian Hodder and Mark Leone initiated the discipline where the individual was present in archaeology which opened up several sub-disciplines, for example, gender archaeology, where the role of females in history was finally addressed, who prior had been passive and weak if at all observed (Sharer and Ashmore 2003: 99). Ian Hodder prefers the term contextual archaeology to postprocessualism which he finds more accurate and postprocessualism is based on the fact that any researcher will inevitably base their questions and answers on personal experience (Sharer and Ashmore 2003: 101, 113).

A way to explain the difference between the two disciplines, and to understand why it was necessary to broaden the processualistic mind, would be with this example: processualism looks at the individual object without necessary context and would indicate that the graves in a society would show complexity. Whereas, with postprocessualism: one should look at archaeology as if it was a text. For example, it is hard to understand a word without a sentence and, therefore, context is essential. Here graves in a society would show the religious notion.

I will refrain from focusing on who created the artifacts within the tomb or built the structure but concentrate on the importance of the grave goods in association with the deceased. I

will try to identify the different artifacts, not least as the tomb contains more than one individual, which makes it difficult to designate the artifacts.

As investigations show (see Chapter 3), most of the tombs excavated at Structure B1 do not contain a fraction of what Burial 7 contained and, therefore, this opportunity of possible identification of profession is rarely possible. I interpret the grave goods as being associated with the profession of the deceased. I will try to investigate why these artifacts were chosen for this interment focusing on whether they were the essential tools which anybody within that profession would need, and it was stereotyped or if it was the deceased's personal tools he or she had been using. It also seems there might be more adornments than might have been possible to wear while alive, at least if wearing them all at once, which could indicate all precious personal belongings may have accompanied the deceased as well.

1.4. Reasons for choice of research topic

In 2011 excavations at Cahal Pech went from having in the recent past focused on minor excavations, mainly at the Plazas B and C, to commencing work on one of the largest structures in the site. Douglas Tilden, president at the NGO *Around the World with Us*², had donated sufficient funds to restore the façades of the triadic structures of Plaza B. This led Dr. Jaime Awe (Commissioner of Archaeology and Chief Archaeologist for the Government of Belize, as well as director of BVAR³) to initiate excavations at the summit of the middle triadic temple (Structure B1), before it would be sealed up due to the restoration.

I was conducting excavations in the newly defined Plaza H, investigating the Terminal Classic period of the Cahal Pech, when Jaime Awe appointed me to be the excavation supervisor of Structure B1 as well. After having exposed Burial 7 in Structure B1, Awe and I discussed the idea of writing my thesis based on the excavations of the tomb. As I am interested in the sociopolitical situation of the Maya as well as trade, this would also give me the opportunity to write about the tomb

1.5. Description of Belize and the Upper Belize Valley

Belize is a small country with a population of approximately 325.000 people all of whom come from different cultural backgrounds: Mayan, African, Hispanic, Taiwanese, the Mennonite and others which create a diverse population with a wide variety of cultures gathered in one place.

²Around the World with Us (<http://www.rtwwithus.org/>) is an organization which focuses on teenagers in communities all over the world, involving them in their own society.

³ Belize Valley Archaeological Reconnaissance project, under which my excavations are conducted

Belize is situated between Yucatan Mexico to the north, Guatemala to the west and south, and the Caribbean Sea to the east. Geologically, Belize is quite diverse with its flat limestone bed to the north and the mountains to the south, with Victoria Peak Mountain reaching a height of 1200m. The mountains consist of not only limestone but also quartzite, sandstone, and slate. In western Belize, which is often referred to as Cayo, San Ignacio is the only large city. It is in Cayo that several larger Mayan sites (fig. 2) such as Cahal Pech, Xunantunich, Baking Pot and Pacbitun are located. South of San Ignacio stretches a large area covered with pine trees and to the southeast is a large granite plateau. With as much as up to 400cm of rainfall each year, western Belize is a tropical area which consists of a large portion of dense rainforest (Willey et al. 1965:21).

There are several rivers in Belize. Two of the largest rivers, the Macal and the Mopan, both contribute to the large Belize River. The Macal River which comes from the Maya mountains merges just outside of San Ignacio with the Mopan River, which originates in Guatemala. The Belize River stretches more than 200km eastwards and empties into the Caribbean Sea. The rivers were not only a necessary mean of transportation or trade route for the ancient Maya; it further provided a large range of foods such as fish, turtle, and alligator. In addition, wild animals were found in abundance along the riverside: jaguars, spider monkeys, howler monkeys, tapirs, deer, peccary, gibbon, coatimundi, armadillo, iguana, and the birds: curassow, guan, chachalaca, and turkey (Willey et al. 1965:23, McAnany 1993: 223). The abundance of wild animals provided the Maya with proficient nourishment to enable them to settle, and, in Belize, many of the sites are located near the banks of the rivers.

The situation in Belize today is one of high crime, low education level, and widespread HIV/AIDS. According to United Nation Development Program, Belize is the country with the highest HIV occurrences in Mesoamerica, with AIDS being the main cause of death among the 15-49 years old population. Unfortunately it is difficult to prevent the HIV transmission as the country has a low education system regarding this issue.⁴

According to the homepage of the Belizean police force, the most *recent* comparison of serious crimes, from 2006 through 2007, no less than 3,171 reports were made. These crimes included murders, rape, robberies, theft, sexual conduct and burglary.⁵ My first summer in Belize

⁴ http://www.undp.org/content/belize/en/home/ourwork/hiv_aids/successstories/belize-reduces-incidence-of-hiv-aids-and-focuses-on-most-at-risk/

⁵ http://police.gov.bz/index.php?option=com_content&task=view&id=74&Itemid=26

(2010), I was a victim of robbery along with three other girl, where young men with knives and afro-combs, stole out bags.

Additionally, Belize is in the danger zone as drug cartels from both Mexico and Guatemala are shipping narcotics from South America through Belize. Narcotics are smuggled both by the coast as well as through strips cleared in the jungle for planes to land. This has caused Belize to be on the black list of the United States, which is cooperating with Belize to diminish the amount of drugs that travels through Belize. But despite the financial aid, Belize is still a poor country and not well equipped to deal with these issues.⁶

Besides from the involuntary income from drugs, Belize is highly dependent on tourism. With its long coastline along the Caribbean Sea as well as several small islands known as cayes, the country offers a large variety of cultural endeavors. Further is the *Great Blue Hole*, located some 70 kilometers from the coast of Belize, which attract a large amount of divers. In addition to the Caribbean shores, Belize offers an extensive insight into ancient Maya culture. A large number of archaeological sites are open to the public, such as Lamanai in the north, Altun Ha, close to cost, Nim Li Punit in southern Belize and, if one venture further inland; sites such as Xunantunich, Caracol, and Cahal Pech are accessible to tourist and local population alike. Should one really like an unique experience, the cave known as Actun Tunichil Muknal requires the adventurer to hike through the jungle, to cross the river several times before reaching the entrance, where it is necessary to swim approximately fifteen meters to the inside of the cave, before having to walk a careful path on which only licensed guides are allowed to take you. Several hundred meters inside awaits an enormous chamber where the ancient Maya would place offerings to the gods. These offerings are still to be found inside the chamber, where large vessels as well as human remains are to be encountered.

1.6. The importance of archaeology

The importance of archaeology at Cahal Pech is manifold. As mentioned above, Cahal Pech is located on the outskirts of modern day city of San Ignacio. This makes it easily accessible not only for tourists but also for the local population. Unfortunately the majority of the sites in Belize are not easily accessible if at all open for the public. All the restoration at Cahal

⁶http://www.washingtonpost.com/world/americas/mexican-drug-cartels-reach-into-tiny-belize/2011/09/28/gIQA4lxzBL_story.html

Pech which has been done within the last three years gives the visitor a more authentic view clarifying the life of the Maya who lived at the site more than 1,000 years ago.

Because Belize is a multicultural country with a variety of peoples, despite a population of no more than 330,000, it may seem as a problematic task to teach the Belizeans about the Maya, as a lot of the population does not feel that the heritage of the Maya is their heritage. Regardless of all their different backgrounds, they live in an area associated with the Maya, therefore it becomes an important part of society, not least as the Maya are still very much alive. So learning about the Maya I would consider being a priority, similar to learning about the Vikings would be considered a part of the inheritance in Scandinavia, despite one's cultural background.

This summer (2013), I asked a few of our local workmen if they would be interested in attending school to learn more about archaeology and Mayan heritage. I had, prior to this, discovered that there were no classes in high school about Mayan heritage, culture, or archaeology, which of course makes it hard for the population to get interested in preserving a heritage to which they are not really introduced (Jim Puc jr. and Gedisa Avella personal communication, 2013).⁷

In Belize it is not possible to learn about the ancient Maya culture until you reach university level, which not many do, and only a minority of the ones who make it to a university choose to study the ancient Maya. It is hard to blame the population when they do something like bulldozing an ancient pyramid structure (which happened as recently as in May 2013), claiming they did not know it was not just a small hill. Of course they knew, but why preserve it if their own country does not offer to show them how or why.⁸

The local workmen whom I asked if they would consider attending school to further educate themselves and learn more about what they/we are actually uncovering, sounded interested in getting such an opportunity. However, after having spoken with a few educated Belizeans (Jim Puc jr. and Gedisa Avella), I have learned that probably there will need to be more to it than just education, for example, promises of more jobs and higher pay. Many of the local workmen have years of experience working on excavations, but as the foreign archaeologists often have a lot of research and work to do after end excavation, there is rarely time to actually sit down and answer and discuss questions.

⁷ Jim and Gedisa have through my years in Belize become close friends. Jim is in University and Gedisa is a teacher in high school.

⁸Article on the episode: http://www.huffingtonpost.com/2013/05/13/mayan-pyramid-destroyed_n_3268401.html

My thoughts on teaching the workmen about ancient Maya culture started while I was working at the site of Cahal Pech, and one of our local workmen, while waiting for a ride, started asking me questions about our excavations. One of the rangers, who works at the visitor center at Cahal Pech, joined us and expressed the regret that, if he had only known while he was in high school that he could have volunteered as an archaeologist, he certainly would have been eager to learn more.

In Belize there is only one school which is concerned with teaching the population about Mayan cultures and crafts. It is a Non-Governmental Organization called Tumul K'in, in the south of Belize⁹. This is important in order to spread more awareness and introduce the culture to people who are unfamiliar with Mayan ways. But more initiatives like the Tumul K'in are needed, if it is to spread to the rest of the country. In a conversation with Jim Puc Jr., who is the son of one of the most skilled local workmen in Belize, and who has often worked with us during his summer holiday, he told me that it is the Catholic high schools (which are the majority) who are not interested in teaching Mayan history in their schools, due to religious restrictions.

I hope that in the future it will be possible to teach the population of Belize about history and archaeology and teach them the importance of heritage and context (so that, for example, artifacts found should stay in the ground until proper investigations can be completed). If some of the population could learn to do more crafts, this could be a way to support themselves economically. Belize has only few locally produced souvenirs, aside from the slate plates that many of the young teenagers make to pay for their way through high school. Belize has unearthed many beautiful artifacts and to produce replicas for the population to sell to increase their income and production of local crafted souvenirs may help Belize provide more jobs as well as an interest in Mayan culture.

In the near future Jaime Awe is working to establish a new beautiful National Museum to be opened in Belmopan, which is the capital of Belize located in the center of the country. There are several visitor centers near the archaeological sites, but due to security issues, like resources to have secure exhibition areas, as well as education of proper rangers and guards, a new proper museum is necessary, not least to finally bring the large amount of artifacts which are stored away, out for exhibition. Furthermore, many of the visitor centers are in need of being modernized, as most information provided on the Maya and the sites was done about 20 years ago, and since then the knowledge about the Maya has changed drastically.

⁹ <http://www.tumulkinbelize.org/>

I have asked a five people to participate in a questionnaire, for their opinion upon the topic of the present situation on Mayan history and culture in Belize. Each is chosen for their different backgrounds and therefore different approaches to the Maya world.

- Jim Puc Sr. who is a local Mayan workman, considered one of the best workmen/archaeologist in Belize by many who have worked with him. Puc Sr. has worked with me the last four years, and has worked on Mayan sites for more than 30 years.
- Dr. Marc Zender, an epigrapher, who I have worked with for the last three years. Marc Zender, teaches at Tulane University, and is relying on his knowledge on the Maya as part of his profession.
- Douglas Tilden, president of the organization: Around the World with Us, who the last years have donated money to the site of Cahal Pech in order to preserve it.
- Gedisa Avella, a student I met when she volunteered to work with BVAR in 2011, while she was attending Galen University, just outside San Ignacio. She was an immense help in lab, and later on became a high school teacher at Eden High School, which is located no far from Galen University.
- Jamaal Crawford, a tour guide and manager at Pacz tour company, who for a living sells trips to tourist to various Mayan sites.

1. What does archaeology mean to you?

The overall agreement seems to be that archaeology is necessary to understand the past and cultural heritage. Marc Zender noted, *“Archaeology is the only scientific way of engaging with the past material”*. The approaches and reasons are different however, but whether it is to understand who their ancestors were or to feed their intellectual curiosity, they all agree upon the fact that the past needs to be preserved.

2. What does Mayan history mean to you, and do you feel the Maya has influenced your life/way of living?

The Maya have influenced them all differently; some directly, some indirectly. Living among the present day Maya, has an influence which has been incorporated into society and has become part of who the modern population are. A diverse society which should encourage tolerance, and as Marc Zender explains: *“As an anthropologist, I feel that the more we learn about other cultures and worldviews the better able we are to*

make rational, informed decisions about the kinds of cultures/worldviews we would like to promote in the present.”

3. Do you feel the Belizeans are proud of and are respecting their Mayan heritage?

There seem to be split opinions on whether the Belizeans are being proud of their heritage or not. Marc Zender and Douglas Tilden seem to agree that there is lacking a feeling of connectivity between the Mayan segment of the population and their heritage. Gedisa Avella and Jamaal Crawford seem to agree that there used to be a time when the Maya were embarrassed of their heritage, but that it in recent years this has changed. They agree that Belize, being a complex country with such multi ethnical descendants, makes it hard for everybody to be content. Jim Puc, who is of Mayan origin and lives in a village from which most of the local workmen used in Cayo originate, does not feel that the Belizeans are not proud.

4. What do you think could be done to preserve Mayan Culture and integrate it more into society?

To preserve the Mayan heritage and get the population to see the value of Mayan heritage seems to be an immense task. As Marc Zender points out: *“There is the problem of what precisely “Mayan culture” is, since there are Yucatec, Mopan and K'eqchi' speakers in Belize and all of them have quite different cultural values and languages.”* Some suggestions for solutions are given, which with some effort could be realistic. Gedisa Avella suggests integration into the school curriculum as well as a possible series of history videos produced and shown on local Belize TV stations. The videos could add to the general knowledge and a general push for Belizeans to be proud of their entire heritage and allow the culture and knowledge to be passed on to future generation. Jim Puc would like a house on Mayan culture which he suggests could be called “The Mayan culture”, which correlates with Jamaal Crawford’s suggestion of a special Mayan day like Garifuna¹⁰ Settlement day. This will encourage new traditions and spread awareness through music, food, art and literature. Jamaal Crawford points out, though, that it will be costly and suggests support from governmental and non-governmental organizations will be needed to promote and revive Mayan heritage.

¹⁰ The Garifuna are a people with ancestry in west Africa and of the Carib people whose origin was the Lesser Antilles islands in the Caribbean Sea

Doug Tilden, who runs a NGO, explains that there are several large organizations that routinely do work in this area. Typically their approaches include 1) Site management plans including access and informational material. 2) Community outreach: formal programs to create community awareness. 3) Formal education: integrating educational material into both formal education and continuing and adult education. 4.) Economic activity: while a considerable portion of Belizean GDP (Gross domestic product) is related to the Maya; tourism, hotel, restaurant, transportation, archaeological workers; more needs to be done. Douglas Tilden acknowledges that it seems these activities are disconnected from appreciation of the cultural continuity. The answer to this is more education targeted on this segment to those whose livelihoods are related to the Mayan world.

1.7. Description of Cahal Pech Site

Cahal Pech is located at the outskirts of modern day city of San Ignacio in western Belize, in the Upper Belize Valley. Unfortunately, most of the surrounding settlement of ancient Cahal Pech has been succumbed to the growing city. Cahal Pech is located on a hilltop 166 meter above sea level, on the west bank of the Macal River, with the mountains to the south (Ball and Taschek 2001).

Cahal Pech is a medium-sized Maya Center, covering an area of more than 10.000m² with more than 34 structures shared between eight plazas, including two ballcourts. The eastern ballcourt is located within Plaza C, whereas the western ballcourt is located downhill on the western side of the acropolis. Cahal Pech is divided into two halves, with Plazas A, D and E covering the western part of the site, with limited access. The other half covers a larger area, including the last five plazas; B, C, F, G and H, which are all more open and easier to access. To enter the site, one will have to enter either from the north or the south, between Plazas B and C.

Plaza B, with the eastern triadic temples bordering to the east, is the largest plaza within the site core. It measures 50 meters from north to south, and 60 meters from east to west. Plaza B is 2 meters higher in elevation than Plaza C, and 3 meters lower in elevation than Plaza A (Awe and Campbell 1988: 19, 26).

Cahal Pech has been heavily looted, and when investigations began in 1988 by director Jaime Awe and his assistant director Mark Campbell and their large crew of students and local workmen, they identified no less than 55 looters' tunnels, trenches, and pits covering twelve different buildings. Temple A1, the tallest structure at the site core, was badly damaged by

tunnels and trenches entering from all angles (Awe and Campbell 1988:12). Structure B3 had likewise been heavily looted, needless to say that it is serendipity to us (the researchers) that Structure B1 was not looted, as the information that structure has provided has been immense and extremely important for the understanding of the site, as well as for the Maya in general within the Maya Lowlands.

Cahal Pech means “Place of Ticks” which is not an original Mayan name. The name was given in the 1950s when the first explorers reached the site and the name is based on two words from Mayan respectively: Yucatec for ‘place’ and Mopan for ‘ticks’ (Awe and Campbell 1988:1). There has not yet been found a toponym/Emblem glyph (Mayan hieroglyphic name) for the site of Cahal Pech, as hieroglyphs recovered are few and none has contained a possible site name.

Based on the research initiated by Jaime Awe, Cahal Pech has been established as having been populated as far back as 1200 BC and new evidence supports that the site was extensively used up through the Terminal Classic period (Awe and Schwanke 2005).

1.8. Brief description of archaeological research at Cahal Pech

When Cahal Pech was actually discovered is not known, but the earliest known excavations were initiated in the 1950s. But it was not until the late 1980s that extensive investigations commenced, directed by Jaime Awe. The investigations were based on collaboration with the Belize Tourism Industry Association (B.T.I.A.) and UNESCO, to preserve the history of the Maya by turning Cahal Pech into a national park (Awe 1992). Although the site had been extensively excavated, a chronology was still lacking which became one of the objectives of the investigations conducted by Awe.

The initial objectives for excavations at Cahal Pech in 1988, when Jaime Awe and his crew started their research, was to: *“1) halt further destruction of the center, 2) produce a map of the site demarcating an area to be established as a National Park, and 3) obtain the data necessary to publish a preliminary guidebook for use in schools and for promoting tourism”* (Awe and Campbell 1988:1).

Prior to Jaime Awe and his associate’s arrival in 1988, other scholars had investigated the site of Cahal Pech, but without determining the chronology of the site. Neither had much been published of the investigations conducted. Scholars like Linton Satterthwaite of the University Museum of Pennsylvania, had initiated some mapping of the site as well as a few excavations, but not published the results (Awe and Campbell 1988:4).

Peter Schmidt, Director of the Archaeological project at Chichén Itzá, has likewise excavated at Cahal Pech. In 1969 Schmidt excavated at the summit of the same temple structure (B1) where the burial 7 represented in this paper was found. The objectives for his excavations could have been many but his own thoughts on the topic have not been published. But by only excavating at the summit of one of the largest structures at the site, when barely anything else had been excavated, it would seem to me that Schmidt had an interest in investigating funerary traditions at Cahal Pech. Unfortunately, all of his notes were destroyed in a hurricane, and, therefore, his data remains unpublished (Awe personal communication, 2013).

Gordon Willey of Harvard University, however, although he did not excavate at the site, collected some information which he published in a very short paragraph. Willey briefly described the location as well as a short identification of the site and informed us that, in Plaza B, five stelae as well as one altar were found, all without engraving (Willey et al. 1965: 313).

Archaeologist, Joseph Ball and his wife Jennifer Taschek, of San Diego State University, had in the 1980s, prior to the arrival of Jaime Awe, conducted excavations around Cahal Pech and again in the 1990s. Ball and Taschek have likewise not provided any reports on their excavations, except for a drawing of Structure B1, on which evidence of four burials have been plotted. (fig. 3).

The objective of Ball's and Taschek's investigations seems to have been out of genuine interest in the site (and other sites excavated by them such as Buenavista, which is not located far from Cahal Pech). However, for whatever reason, they failed to publish any reports and in several of their attempts to restore the architecture around the site they misinterpreted the architecture, which led Jaime Awe, in 2013, to remove the restoration done by Ball and Taschek on Structure B4 in order to re-restore it. In 2014 it is the objective of BVAR along with Douglas Tilden to likewise properly restore the steps leading from Plaza B into Plaza A, which have also been improperly restored by Ball and Taschek.

The last two decades excavations at Cahal Pech have been conducted under the supervision of Jaime Awe, and several archaeological projects been involved like BVPMP (Belize Valley Preclassic Maya Project), directed by James Garber from Texas State University. But the main excavations conducted the last three years have been carried out by Jaime Awe's own project, BVAR (Belize Valley Archaeological Reconnaissance project) assisted for a few weeks each summer by AFAR (American Foreign Academic Research), which is a high school project from North Carolina.

The last three years' investigations have been extensive, (fig. 4) covering excavations at the summit of Structures B1, B3 and B4, Preclassic investigations in Plaza B, as well as minor excavations at several places around the site: Plaza H, Plaza C, Plaza G, and Plaza F. Excavations have also occurred in the periphery of the site core along with extensive surveys. Restoration of several buildings, such as the Eastern Triadic temples (B1, B2, and B3), the staircase leading from Plaza B down to Plaza C, as well as properly restoring Structure B4, as the original restoration work done on this structure by earlier archaeologists who, despite good intentions, unfortunately damaged the structure to an extent that made re-construction necessary.

1.9. Summary

This chapter has addressed my choice of topic and introduced to the methods and theory used to access my objectives. The Cahal Pech and previous research at the site has been introduced, and will be thoroughly addressed in chapter 3. The milieu and conditions of Belize has been addressed providing background of the population, necessary for understanding the need for preservations of the Mayan cultural heritage.

Chapter 2: Background -Introducing the Maya

2.1. Introduction

This chapter is an introduction to who the ancient Maya were, focusing on the traditions of the elite. The Maya were never a united people, and Maya were a diverse population, divided into groups, recognized by their different languages. Some of the larger Mayan groups are the Yukatekan and the Ch'olan just to mention a few (fig. 5). Despite the diversity, the Maya shared many characteristics. This is recognized through several attributes such as their architecture, iconography, grave goods, and certain religious practices and beliefs.

The interment on which this thesis is based, has been dated to the transition between the Early Classic and Late Classic period (c. AD 500-700), and the following introduction concerns this time period addressing: milieu, chronology, creation myths, the Maize God, the sociopolitical situation, life at court, as well their calendar and writing system.

2.2. The milieu of the Maya

In modern day Mesoamerica, at least 7.5 million Maya still live, being the descendants from the ancient Maya, who during the Late Classic period are estimated to have been eight to ten million people within the Maya lowlands area (fig. 1) (Coe 2005:11, 22). The Maya area stretches from the Yucatan peninsula, which includes Belize and parts of Guatemala, to western Honduras and El Salvador as well as parts of southern Mexico (the states of Tabasco and Chiapas). The Maya area covers an area of 324.000 km² and the Yucatan peninsula stretches 290 km from north to south, and 110 km east to west providing an ideal area for the ancient Maya, with water on three sides and mountains on the fourth. The Yucatan peninsula has four rivers (Rio Hondo, the New River, the Belize River and the Sibun) which were beneficial for trade and exchange as they covered a large area and further were easily accessible. The Maya area ecologically covers: deserts, volcanoes, lowland and highland, tropical rainforest as well as snowy areas (Coe 2005:11, 14, McAnany 1993: 213, 220, Sharer 2006: 23, Willey et al. 1965:21).

The rainy season (May-December) in Mesoamerica has less rainfall than other tropical areas across the world. The annual rainfall is approximately 178-229 cm but the actual amount of rain is very unstable (Coe 2005:17). The soil in the northern Yucatan is poor compared to the very fertile soil in the Petén area (fig. 6 and 7) from where crops were traded for exotic goods like shell, honey, and salt. The milpas (Mayan fields) exploited by the Maya needed rest and could often only be used for a few years at a time, after which the milpa would need rest for four

to seven years in the Petén area, whereas it could take up to 15-20 years for a milpa to be usable again in northern Yucatan, which created a shared trade interest between the two regions (Coe 2005:18).

The main food consumed by the Maya was the four crops: maize, beans, chili peppers, and squash. Consuming untreated maize can cause indigestion and sickness because of the high density of vitamin B, but, by adding a neutralizer, maize can be digested without problems. The Maya therefore added lime (pulverized limestone) or ash to neutralize their food (Coe 2005:13). But the Mayas sustenance was more than maize, beans, chili and squash. The Maya consumed peccary, turkey (ocellated), curassaw, guan, and deer, and even dog, spider- and howler monkey were consumed. The tapir (mountain cow) was hunted for meat as well as for its strong hide, which was so strong it was used by warriors for shields (Coe 2005:18). Salt was also necessary in their diet, which the Maya exploited for consumption and preservative (See chapter 6 for discussion on salt).

2.3 Chronology

Evidence of human activity within the Maya area has been detected as long back as to the Early Hunters period (11.000-7500 BC), identified by tools (points) made of chert used for hunting. This was followed by the Horticulturalists (Ice Age and Hunter-gatherers) (7500-2000BC), followed by the rise of the Early Preclassic period of the Maya.

It has been suggested that the beginning of Maya civilization started with the Olmec people. The Olmec were a people habituating the Gulf coast of Mexico from c. 1200-400BC. The Olmec are known for their charismatic art style with easily identifiable facial traits. The art style is presumed to have been adopted throughout Mesoamerica and it has been suggested that the Olmec site of La Venta, near the Gulf of Mexico, is where Classic Maya started their stone culture, creating figures (Reilly 2005:30, 36). Michael Coe, leading historian on the Maya, from Havard University, supports that notion and states that, despite the fact that the Maya were never a united people, it is likely that the traditions of the Maya would have originated from an earlier civilization, which could possibly be the Olmec or even earlier (Coe 2005: 14).

2.3.1. Preclassic period: (1800 BC - AD 250)¹¹

The Preclassic period is divided into three sub-periods: Early Preclassic (1800-1000 BC), Middle Preclassic (1000-300 BC), and Late Preclassic (300-100BC) with a Protoclassic period as a transition between the Preclassic and Classic period, spanning from 100 BC - AD 250.

The Late Preclassic period was the time of the rise of the Mayan civilization. The Maya had realized that burning limestone and mixing it with water created a strong building material: concrete. As the Petén had an inexhaustible supply of easily cut limestone and abundant flint for tools to work the limestone, the construction of cities and pyramid building as well as inscription on stone monuments began (Coe 2005:77).

By the end of the Preclassic period many Maya capitals had declined and been abandoned. Why this occurred is still being speculated, but new capitals with new politics emerged and the transition to the Classic period began (Sharer and Martin 2005:83).

2.3.2. Classic period: (AD 300-900)

The Classic period is like the Preclassic period, divided into three sub-periods: Early Classic (AD300-600), Late Classic (600-800), to end with the Terminal Classic (AD800-910).

The Classic period is the period where Maya civilization peaked, recognized through their divine kingship, writing and calendar system, structure building, iconography, tombs and grave goods. The Maya were never united under one ruler and during the Classic period more than 60 kingdoms were competing across the Maya area and warfare and alliances played an immense role within each kingdom (Miller and Martin 2004:17) (See Chapter 6 for the sociopolitical situation).

During the transition to the Early Classic period, the political structure in the Maya Lowlands changed and the ancient Maya cities developed into: *“a system of multiple competing polities that were linked, on an elite level, by shared cosmology, written script, system of reckoning time, stelae construction and the political institution of kingship”* (McAnany 1993: 227). Further, the infrastructure of the cities changed with the transition from Preclassic to Classic period, where the concept of plazas were introduced, with the temples and platforms arranged around an open space. However, the ancient cities did not have a stereotyped plan, and all cities had a different layout (Coe 2005: 84, 112, 115).

¹¹ There is no fixed chronology and all the dates are relative as different scholars use different figures. I base my chronology on the one used by BVAR as that is the project with which I am affiliated and the project which is responsible for the excavation of burial 7.

It is the Late Classic period that provides the best legacy of the Mayan culture, with a large amount of hieroglyphic texts as well as some of the richest tombs with astonishing grave goods. The Late Classic Maya kingdoms were” *a time when the complexity of the court, its arts, and the material wealth inside the royal palace were at their zenith*” (Kathleen Berrin 2004: in the Miller and Martin book: 13). Focusing on events that occurred during the transition between the Early Classic and Late Classic periods, these periods will be introduced further below.

The Terminal Classic period shows the decline of the Classic Maya civilization. During the Late Classic and Terminal Classic period, the population rate had peaked and there is evidence of extensive agricultural production. Calculations suggest that the population in the central lowlands, during the Late Classic period was as high as three million, which strained the environment. The so-called collapse of the Mayan civilization seems to have been inflicted by three main reasons: 1) widespread internal warfare 2) overpopulation, which led to environmental degradation (erosion of the milpas and deforestation) 3) drought. The collapse however did not occur overnight and most likely society slowly drained the resources and it is plausible that hunger caused by a series of drought episodes led to increased warfare among competing political states, starting around the sixth century AD (Coe 2005:162, Kennett et al. 2012:491, McAnany 1993:227-228). Whatever it was that finally tipped the lowland Maya over the edge, it was not something from which they were able to recover, and the sociopolitical situation as seen in the Classic period states with their divine kingship never reoccurred.

Around AD 830 most cities in the central Maya area stopped building new temples and erecting stelae, except for a few cities like Lamanai in northern Belize, and most of the large cities had been abandoned. The last Mayan inscriptions were from Tonina, in the Mexican state Chiapas, dating to AD 909, and at Itzimte in the Petén which date to January 15th 910 (Coe 2005: 26, 162, Miller and Martin 2004:21).

As the Lowland city states seemed to diminish, a new civilization flourished in northern Yucatan, particularly at the ancient city, Chichen Itza. This city had risen during the Late Classic period, and the collapse did not reach the new capital of Yucatan until AD 1050-1100 (Sharer 2006: 559). Mayapan, an ancient city c. 100 km west of Chichen Itza, was presumably the last large Mayan city and was considered the capital of Yucatan at the time of the arrival of the Spanish (Sharer 2006: 592-594).

2.3.3. Postclassic: (AD900- c. 1519)

Following the Terminal Classic period, the Postclassic period was the last phase of the Maya before the arrival of the Spanish invasion. The Postclassic period is recognized through its lack of inscriptions and monumental building and the abandonment of the city states, especially in the central area. The Maya, who seem to have as a last resort to retain their culture, changed the sociopolitical and ideological foundation of their states. But they did not manage to once more raise their civilization to the level as known from the Classic period.

2.3.4. Postcolumbian period: (1519 till present)

Hernan Cortes, the Spanish captain known to have conquered the New World, had entered Mexico City in 1519, but it was not until 1542 that the Spaniards managed to conquer the Yucatan peninsula (Coe 2005:202). The Spaniards brought along with them not only guns and horses but also diseases to which the indigenous were neither resistant nor familiar with possible treatments. The indigenous were weakened by these diseases but did not give up resistance to suppression and defended themselves with all their strength. Michael Coe argues that the Maya were the toughest of all the indigenous in Mesoamerica and that their struggle against European influence never ceased. Despite the resistance, it has been estimated that no less than 90 percent of the indigenous were killed within a hundred years after the arrival of the Spanish. This has been considered being the worst genocide in the history of men (Coe 2005:243).

The last Maya city to withstand the Spanish was the city of Tayasal, located on an island in Lake Petén, in Guatemala, where modern day city of Flores is now located. It was populated by a Mayan people known as Itza's and did not surrender till 1697, where the Spanish arrived and forced the Itza to abandon the place, which cost many Mayan lives (Jones 1998: 56, 59).

From 1820-21 onwards, Mesoamerica was no longer a Spanish colony, which for a while eased the tension between the white oppressors and the indigenous people. The Maya once again had the right to follow their ancient beliefs without prosecution and they have still to this day somewhat maintained their culture, although their culture is still viewed as inferior, and they are used as cheap labor often found working in plantations (Coe 2005:242).

In 1847 and 1860, the Yucatec Maya fought against the white oppressors and nearly managed to re-conquer the peninsula. Not until recently have the Maya surrendered to the Mexican state. However, the Maya living in Chiapas have not given up, and the Tzeltal people of the highlands of Chiapas along with the Tzotzil people, representing the Zapatista National Liberation Army, have rebelled against the Mexican authorities since 1994 (Coe 2005:203).

Rigoberta Menchú is a k'iche woman from the Guatemalan highlands who in 1980s lost most of her family in an encounter between the indigenous and the Guatemalan state. She was awarded the Nobel Prize of peace in 1992 for her having spoken out about her tragedy. She has published a biography about her life and experiences as a Mayan woman in present day Guatemala.¹² As Coe states, the situation for the Maya is still 'no dance on roses', but they are not giving up, and their restless struggle to spread awareness about the problem has led to there now being in Guatemala more than a hundred schools teaching their native languages (Coe 2005:254). The fact that Rigoberta Menchú received the Nobel Prize of peace is an acknowledgement of the conduct to which the indigenous of both of the Americas have been exposed. Hopefully this has led to the indigenous to believe in a more promising future.

2.4. The elite in the (Late) Classic period and life at court

The king/ruler in each of the Mayan states was referred to as *Ajaw* which is Mayan for *lord*. I will throughout the chapter use the term *Ajaw* to not confuse it with the west European interpretation of the word 'king'. Several other titles of royal or elite members are known: *ch'ok* which means 'sprout', and is interpreted as 'prince'. *b'aah ch'ok* meaning 'head sprout' and interpreted as 'crown prince'. *b'aah ajaw* means 'head ajaw' who is 'the foremost of secondary figures' considered the right hand of the Ajaw (Miller and Martin 2004:26).

The *Ajaw* has been described as: "*an omnipresent figure in the political imagery of Mesoamerica, surrounded by a scintillating yet diffuse mythological aura. ... The ruler is the figure most represented in that history, as much as in myths, annals, and chronicles as in art and symbols*" (Florescano 2005:17). To be the *Ajaw* was a life with many splendors as well as dangerous tasks. The ceremony when ascending to the throne was the most important and is seen portrayed countless times. Through veneration, the Ajaw was supposed to communicate with the ancestors and gods to assure, for example, a successful harvest (Florescano 2005:19).

The *Ajaw* could take multiple wives and the heir to the throne would usually be the first born son of the *Ajaw*. Should the Ajaw have no male offspring, the succession would proceed to either a brother of the Ajaw or to a female heir (albeit only few women achieved the status of Ajaw) (Miller and Martin 2004:17). From the seventh century onward, elite women had a lot more influence and wealth, whereas earlier the elite women had who had been acknowledged were usually as the mother of the *Ajaw*. This influence is particularly seen as several elite women have stone monuments dedicated in their honor (Miller and Martin 2004:93).

¹² Me llamo Rigoberta Menchú (1983)

The court of the elite had many functions and responsibilities: luxury residence, governmental office, reception center, banqueting hall, school and courts of justice, and a place of joy, elaborately decorated inside as well as on the exterior (Miller and Martin 2004:19). For the *Ajaw*, it was necessary to possess an extensive amount of exquisite regalia and costumes to emphasize his wealth. This is both depicted in the iconography as well as detected through grave goods. Furthermore, it was explicit that the Ajaw had to maintain as well as expand his kingdom, and architecture and monuments had to mirror his wealth (Bell 2005: 67).

Iconography testify that at court the *Ajaws* would smoke thin *cigarettes* and were entertained by dwarves, hunchbacks, singers, masked actors, trumpeters, drummers, waiters, dressers, and fan bearers (fig. 8) (Miller and Martin 2004: 20). To distinguish a certain *Ajaw* from one ancient city to another is not without difficulty, as the Ajaw seem to have been depicted very stereotyped in the iconography and, therefore, have no individual characteristics (physiognomy). Court scenes were the favorite topic on Mayan vases (ceramic vessels), but stereotyped iconography makes it difficult to identify one *Ajaw* from another. Fortunately these court scenes on vases are often accompanied with hieroglyphs, which often tell both the name, title, dates and possibly place-name (Miller and Martin 2004: 25, 43). Some of the court scenes depict the Ajaw receiving tribute, which could be bundles of cloth, chocolate beans, exotic marine shells, rare feathers or anything desirable, all which were accounted for by a scribe (fig. 9) (Miller and Martin 2004:20). The scribe profession plays a central role of this thesis and will be addressed in chapter 6.

2.5. Religion in the (Late) Classic period

Religion, myths and creation is very diverse among the Maya, not least as the Maya were never a united people and different versions are detected in different areas. The Maya had a large variety of gods, of which the main gods are the ones associated with maize, rain, and lightning. The Maya further had patron deities like hunters, fishers, beekeepers, tattoo artists, scribes, comedians, lovers, and of suicides (Coe 2005:217). The Mayan creation myth, the story about the Hero-twins, and the legacy of the Maize God are among the most important religious traditions and will be introduced below.

The Rain God Chaak can be traced as far back as the Olmecs, again underlining the connection to the Olmec people, and, according to Karl Taube, specialist on Mayan cosmology and iconography from Riverside University, California, Chaak is the only Mayan god still seen among the Maya today (Coe 2005:216-217).

The elite Maya had several religious rituals among which sacrifice of humans was not uncommon. The sacrificed human had the heart or head removed and offered to the gods. The ritual would demonstrate the sovereignty of the Ajaw and could be a celebration of a fight won against other Maya. Self-sacrifice also occurred among the rituals conducted by the elite, in which blood was drawn from the ears, tongue, or penis, known as bloodletting (Coe 2005:13). (See chapter 5 for further discussion).

2.6. Creation myth and the *Popol Vuh*

Despite the lack of unity among the Maya, there seem to have been a general idea of the creation myth and the origin of certain gods. The creation myth is best known from the *Popol Vuh*, which is a manuscript written in the sixteenth century by the Quiché-Maya who lived in the highlands of western Guatemala before the arrival of the Spaniards, although the manuscript was probably not finished until after their arrival (Christenson 2003: 37). According to Allen Christenson, anthropologist from Brigham Young University, Utah, the *Popol Vuh* is: “*declarations of the purpose of the world and man’s place in it*” (2003: 42).

The *Popol Vuh* introduces us to the creation myth as it was during the sixteenth century and it is summarized here based on a review by Karl Taube (1993: 55-62):

The gods wanted to create humans, which took them four attempts before they created humans as seen today. In the first attempt, the gods created animals, but, as they were not able to speak, the animals were not capable of praising the gods.

Dissatisfied with the animals, the gods tried a second time. They created humans out of clay, but this also turned out not to be a good solution. The humans were able to make sounds but could not speak and the gods received no praise.

The gods tried a third time, and, this time, they created humans out of wood. Unfortunately, this failed as well as the wooden humans had no blood or emotions and, therefore, could not praise the gods. The gods were angry and destroyed the emotionless humans with an immense flood. The surviving children of the wooden humans became the monkeys in the trees.

In their fourth attempt, the gods had finally figured out what had gone wrong previously and the gods summoned the animals and had them bring forward white and yellow maize. The gods grinded the maize out of which they created the first four men. These men were both wise and honorable and, as the gods expected, the four men praised the gods. However, the gods found that the four men resembled themselves, as the four

men had the ability to see everything. So the gods took away the powers of the four men and gave them four women in return. It is from these four couples that the lineage of the Quiché origin

Besides from the creation myth, the *Popol Vuh* also explains the story of the Hero-twins. A citation from the *Popol Vuh*, translated by Christenson, states how the half-brothers of the Hero-twins became monkeys (Christenson 2003: 141):

“A long time ago, they became animals. They became spider monkeys because of their pride, for they had abused their younger brothers according to the dictates of their hearts. Thus they were ruined. One Batz and One Chouen were lost, becoming animals. Thus their community and their home is now among the flautists and the singers.”

It is possible that the Maya considered monkeys as sacred because of their intelligence and high status as semi-humans in the animal kingdom and the hieroglyphic classifier for man is the same as for monkey (Coe 1977: 82. 346). Howler monkeys, as well as sometimes the spider monkeys, were considered the patrons of the scribes by the Maya (Stuart 1989: 435) and a citation from the *Popol Vuh* shows how the half-brothers of the Hero-twins, who were now monkeys, are related to scribes (Christenson 2003:147):

“Now One Batz and One Chouen were great flautists and singers. They had grown in greatness. They had passed through great affliction and misfortune, and thus they had become great. They were sages. They were not only flautists and singers, but they had also become writers and carvers. Everything they did was successful for them”

Although the *Popol Vuh* was written eight hundred years after the Classic period, it still gives an insight to the cosmology of the Classic Maya and the *Popol Vuh* is often depicted on Classic Maya vessels. However, during the Classic period, it was the Maize God who was the father of the Hero-twins, and he was the patron of scribes, dancers, and artisans, not his sons, the half-brothers of the Hero-twins (Taube 1993: 63).

2.7. The Maize God

The Maya had gods for several occasions and purposes, but probably the most important god was the Maize God. He was the god of agriculture, hence the name Maize God, and jade is believed to be associated with the Maize God as the green color resembles fertility. As mentioned above, the Maize God was considered the father of the Hero-twins as well as of the monkey scribes. But the Maize God himself was also considered a patron of scribes, as well as a dancer. The association between the Maize God and a dancer is based on the fact that maize in

the field always moves, even without any breeze, making it look like it dances (Miller and Martin 2004:52, 56).

The Maize God played an important role for the Classic period *Ajaw* and elite. In particular during a ritual of raising the world tree, where the sky and earth were separated by a tree, the iconography is depicted as a maize plant. During the ritual, the *Ajaw* was the agent, performing the ritual as if he was the Maize God. The Maize God was accompanied by two aged paddler gods to a special place where the Great World Tree was planted (Coe 2005:214-215, Fields and Reents-Budet 2005:24).

The Spanish documented that it was common among the Maya to place a bead of jade or greenstone in the mouth of the deceased. This was a symbol of planting maize and the deceased would be reborn as the Maize God (Miller and Martin 2004:57). In burial 10 from Structure B1 at Cahal Pech, dating to the Protoclassic period (100 BC – AD 250), the individual had a jade bead, shaped like an ear of maize, placed in his mouth. The Maize God was a very important deity, also at Cahal Pech and he is of particular interest in this thesis, as one of the interred in Burial 7 at Structure B1 is believed to be associated with the scribal profession and several of the accompanying grave goods were made of jade. In chapter 6, the Maize God and his association with scribes as well as with certain rituals will be addressed further.

2.8. The god of trade: God L

The deity, God L, served as patron of trade tribute and exchange, being wealthy, old and unsympathetic (fig. 10). God L was considered a prince of the darkness in Xibalba (underworld), and sometimes associated with the destruction of the previous humans (see creation myth above) (Miller and Martin 2004:52, 63, 83). Usually the *Ajaw* would manifest himself through the important Maize God, however, it was the luxurious God L whom the *Ajaws* would imitate in their daily lives. Although not wanting to be depicted like God L, as he looked like an old toothless cigar-smoking man, often with jaguar attributes, the *Ajaws* still associating themselves with the god of tribute and trade, who always, when presented at celestial court (in the iconography), would wrap himself in fine clothes and was occasionally seen surrounded by young beautiful women. Outside of court, God L would more resemble a merchant with a pack and a walking staff and has interestingly been acknowledged more in the western Maya area, which could indicate that there were a lot more trade routes to Central Mexico (see chapter 6). God L was known as far away as Cacaxtla, which is 800 km northwest of Palenque, where he is depicted on murals (Miller and Martin 2004:59).

There are several depictions of God L being stripped naked, deprived of his tribute and humiliated by the Maize God (fig. 11). It is possible that these scenes are associated with periods where trade and exchange failed. For instance, when Teotihuacan declined during this period, it may have been hard for God L to deliver certain goods (Miller and Martin 2004:60-61).

Every year, the Maize God dies by the end of the rainy season just to be born anew the following come of rainy season. Likewise, does God L die, by the end of the dry season. The dry season was the season for long-distance trade (as well as the season of war), so, when trade was no longer possible there was no need for God L (Miller and Martin 2004:62).

2.9. Writing, hieroglyphs and the calendar

The Maya were the only people of Mesoamerica with an extensive writing system. The Maya language is divided into ten sub-families all with provenance in Proto-Mayan believed to be dating as far back as BC 4000. In Mesoamerica today, Spanish (English in Belize) is the dominant language, but there are still more than eighty original languages (including several different Mayan) spoken among the indigenous (Justeson and Broadwell 1995:379). The decipherment of the Mayan hieroglyphs, which was initiated in the sixteenth century by a Spanish bishop, Diego de Landa, who with the help of the Maya populating the Yucatan peninsula, had a Mayan alphabet written down, corresponding to the Latin alphabet. However the real development in decipherment is considered to be ascribed to Heinrich Berlin and Tatiana Proskouriakoff, as well as Yuri V. Knorozov, who respectively, in the late 1950s discovered that Classic inscriptions were historical records and that Maya script included a phonetic component (Sharer 2006: 135-137).

To be able to read Mayan hieroglyphs and understand their written records is of immense assistance to our understanding of who the Maya were. Although not all ancient Maya elites produced hieroglyphic texts, the names and life stories of some Ajaws and their families still provide us with an important insight. Some larger centers, like Palenque, Tikal, and Copan even leave behind lengthy texts, informing about alliances, war, marriages among others, and provide information about cities which may not have their own testimony (Miller and Martin 2004:21).

Mayan hieroglyphic script is the most sophisticated writing system in the New World (Fahsen and Grube 2005:75). The Maya used c. 500 recognizable hieroglyphic signs in their writing system (Miller and Martin 2004:123). The writing system is a combination of

logographic signs (words) with syllabic signs. Most logographic signs have iconic origin, conventionally depicting real things (Fahsen and Grube 2005:76-78).

“Writing in the Maya Region began as a highly localized phenomenon, probably with various small and isolated script communities. Writing was so firmly connected to the world of the royal court that the collapse of this institution in the ninth century reduced the use of the hieroglyphic system once again to a few isolated communities of scribes”.
(Fahsen and Grube 2005:79)

It is very likely that the institution of kingship was developed before the invention of writing. Preclassic stelae depicting images of the Ajaw, with no accompanying hieroglyphs (e.g. at Cahal Pech), support this theory (Fahsen and Grube 2005:79). It is assumed that all the children of the elite had lessons in writing, and although names of women are absent among the known scribes, this does not mean that women were illiterate (Miller and Martin 2004:122). However, it was a minority of the population who could actually read and write in the Maya world. It is that possible that the writing system was too complicated and that it was a way for the elite to manipulate the commoners, as many of the hieroglyphs are placed on location not intended to be seen by the commoners but were located in the secluded elite areas. Or maybe the elaborate hieroglyphs were meant to be admired for their beauty rather than for the reader and, therefore, content were less relevant (Stuart 1995: 82-86).

Writing would occur on different types of mediums: Stelae focused mainly on the life of the Ajaw, whereas vessels focused on myths and tribute, which often included the Ajaw (Miller and Martin 2004:123). Because limestone in Mesoamerica is of a bad quality, the humid weather easily created mold on the limestone and many inscriptions have been lost (Stuart 1995:156). The many inscriptions on both bark paper and wood are lost as well. Had the Spaniards not destroyed most of the books in the early sixteenth century, it is questionable if the books could have survived the humid climate. There are four surviving books, known as codices: Dresden, Madrid, Grolier and Paris, but all are considered to have been produced just prior to or after the arrival of the Spanish (Sharer 2006: 127-130).

It is believed that between 7500-10.000 hieroglyphic texts have survived from the pre-Columbian period, which includes those on ceramic vessels of which the majority originate from the Late Classic Period (A.D. 600-850) (Houston 1996: 38). Why some cities had more inscriptions than others probably had to do with the way the different cities had individually focused on the necessity of writing. For instance, there are twice as many inscriptions at Copán than at Tikal, despite the fact that Tikal is much larger than Copán (Stuart 1995: 103-104, 123).

The Maya based their counting system on the number 20 not 10, which is seen mainly in their calendar. The Maya calendar is considered the most sophisticated of the New World and is concerned with cycles of the Sun, Moon, Venus, and Mars as well as the time periods of 9 days, 819 days (which is $7 \times 9 \times 13$) and not least the 260 days (haab year) and 365 days (tzolk'in year which was divided into 18 months of 20 days, with five days added at the end of the year, known as the Wayeb. The five days were dreaded, as they were considered 'unfortunate' as they did not fit in with the rest of the cycles). All the cycles recorded by the Maya could be included into the Long Count of the calendar. The Long Count was the initial date which would indicate to the reader of a hieroglyphic text in which year and on which date this particular count started and onto which more days and years may be added. The calendar was split into five sections: days (k'in) 20 days (winal) 360 days (tun) 20×360 days (katun) and 400×360 days (baktun) (Coe 2005:211, 225, Miller and Martin 2004:125) So, for example, the date 19th of November 2013 would be: 13.0.0.16.11¹³

The Maya calendar started with the Long Count cycle from which all dates were recorded. It supposedly started on the thirteenth baktun (13.0.0.0.0) which was August 13th 3114 BC (although no records have been detected so far back) and a complete cycle which took 5125.25 years would occur on the following thirteenth baktun, which was December 23rd 2012. This symbolized the same as when our modern day calendar (Gregorian) turned into the new millennia. Prior to the Long Count which started in August BC 3114, the Maya talk of a time where the world had been in turmoil and close to destruction, where rivers flooded and the sky fell upon earth, and there was no light (Coe 2005:213, Miller and Martin 2004:125).

2.10. Summary

The background of the ancient Maya has been briefly reviewed, focusing on topics which are of interest to the questions I address in this thesis. The chronology sets a perspective of what happened prior and subsequent to the Late Classic period, from which Burial 7 at Cahal Pech has been dated. Mayan cosmology, including the creation myths, mention of the Hero-twin, the Maize God, and God L are presented to address the association with the scribal profession and trade. Life at court has been described, indicating the importance of being the *Ajaw*, and what it encompassed to be part of the elite.

¹³ Calculations of dates either from Mayan to Gregorian or reverse, or even Julian can be processed here: <http://www.pauhtun.org/cgi-bin/gregmaya.py>

Chapter 3: Investigations at Cahal Pech

3.1. Description of the Eastern Triadic temples at Cahal Pech

Burial 7 was uncovered at the summit of the middle and largest of the Eastern Triadic temples: Structure B1. The Eastern Triadic temples at Cahal Pech are located bordering Plaza B, which is the largest plaza within the site core (fig. 4). The temples consist of one large (12m tall) center structure (pyramid shaped) and two smaller structures flanking to the north and south (fig. 3.). Plaza C is located on the eastern side of the temples, two meters lower elevated than Plaza B, which makes the temple appear even larger when looking upon the eastern façade.

The pyramidal shape of the temples represents a naturalistic mountain. The function of the pyramidal-shaped temples was religious endeavors, bringing the actors closer to the gods who live in the heavens as well as to enshrine the royal and elite members of society. Thus the pyramids were incorporated into the religious rituals of worship of the ancestors. Worship of the ancestors was not exclusively for the elite. The common people, who also wanted their ancestors near, would bury the deceased underneath the floor in their houses (Miller and Martin 2004:19, Valdés 2005: 58).

Extensive renovation have been undergoing on all three structures since 2011. Several excavation units have been necessary to investigate the structures prior to restoration and sealing up the architecture. These units revealed a large number of burials, six alone in Structure B1, as well as one in Structure B3. Excavations at the eastern façade of Structure B1 indicate the possibility of a staircase. Future excavations will reveal if the steps uncovered at the base, continue to the top of the structure and not just a few steps.

Structure B2 (northern flanking temple) was investigated in 1988 by Jaime Awe and his crew as part of the initial investigations of the site. The temple was chosen as it had not been looted or excavated earlier and, therefore, could ensure better condition for investigation. Structure B3 on the contrary had been heavily looted, both at the summit and on the western façade (Awe and Campbell 1988:20). Despite the heavy looting of Structure B3, excavations in 2012 still revealed a cache containing nineteen obsidian eccentrics as well as a tomb which contained the human remains of a female.

3.2. History of Archaeological Investigation on Structure B1

Excavation conducted at Structure B1 begun in 1969 where Peter Schmidt excavated the eastern side of the summit. Here he discovered two burials: Burial 1 and Burial 2. Burial 1 was an intrusive Terminal Classic burial (AD 800-910), which had contained the human remains of

one individual along with five vessels (fig. 12). Among the vessels were two special incense burners. One of the incense burners has elaborate decoration: with nubbins and slits on the side and a head on top. The second incense burner only has the slits but indications that it likewise should have had an attached head.

Burial 2, a Late Classic tomb (AD 600-800), contained eight vessels (fig. 13). Several other artifacts were uncovered, including a remarkable jade mask, as well as jade celts and bar pectorals (fig. 14). A large number of ceramic mosaics possibly for a second mask were uncovered as well.

Excavations in 2012, conducted by BVAR and myself, focused on re-investigating the area at the summit where Schmidt had worked, in order to get measurements of the extent of the excavations and hopefully to get some answers concerning the two burials which had been excavated by Schmidt.

Removing the backfill during excavations, everything was sifted through a ¼ inch screen. In the backfill a large amount of chipped chert was collected, which would indicate the tomb of Burial 2 had, like Burial 7, been covered with a layer of chipped chert. Further investigation revealed that the baulks created by Schmidt's excavations likely had narrowed the further down he went, as a vessel was found against the eastern baulk of the 2012 excavation, possibly associated with Burial 2. The vessel was broken and was placed on top of turtle bone which has been identified by the zooarchaeologist of the project, Norbert Stanchly (personal communication, 2013), as being part of the upper (dorsal) carapace of an American freshwater turtle (or slider).

Several of the turtle bone pieces were inscribed with hieroglyphs. These were transliterated and translated by Marc Zender (see Appendix 3 for report on hieroglyphs), who despite the fragmented pieces, managed to conclude the following reading sequence:

ujuchi(li) aku AJ... for *ujuuch(il) ahk Aj...*, or 'It is the turtle-shell of Aj ...'

Burial 2 has been dated to belong to the same period as Burial 7, albeit Burial 7 being slightly earlier. The dates are based on the ceramic vessels and dates to c. AD 600-700 (transition between Early Classic and Late Classic period). At least two of the vessels found in Burial 2 are similar with vessels found in Burial 7: vessel #5 of Burial 7 and vessel #1 of Burial 2 are both tall fluted vases, in the same dark grey-brown color. Vessel #7 of Burial 7 and vessel #8 of Burial 2 are both basal flange vessels, with the exact same pattern (fig. 13 and 31).

Unfortunately several questions remain unanswered which could help shed light on a possible relation between Burial 7 and Burial 2. As the only surviving drawing from Burial 2

(fig. 15) has no north arrow, it is impossible to know if the individual (male or female) had the head to the north or to the south: in case the head was to the north, it could associate the individual with the two upper individuals from Burial 7 who likewise had the head to the north (See chapter 4 for description the individuals from Burial 7). Neither do we know if the individual was interred in a crypt since no indication of capstones was found when excavating the backfill and none are represented on the drawing done by Schmidt.

In the 1990s Joseph Ball and his wife Jennifer Taschek excavated at the western base of Structure B1. Here they state to have found four burials (Burial 3, Burial 4, Burial 5 and Burial 6). The main evidence of these burials is a plan view of Structure B1 provided by Ball where burials have been plotted in. I have added them to the plan view started in 2012 by BVAR where the rest of the burials have been added as well (fig. 13). However, there are no reports of these excavations and the artifacts seem to have disappeared and, therefore, are not accessible for analysis.

Since Burial 7 was uncovered in 2011, several other burials have been found in structure B1: The excavation of 2012 revealed a deep shaft right at the center of the structure, discovered after the removal of the backfill from Schmidt's excavations. The shaft revealed two Protoclassic burials (dating to c. AD 0-100); each burial contained one individual, both with the head pointing to the south. The upper burial (Burial 8) had collapsed and was only partly articulated. The individual (male) had four vessels with him as well as two jade beads (fig. 16). The lower burial (Burial 10) was in an elaborate tomb, which as walled crypt and covered with cap-stones that had collapsed into the crypt. The individual (male) had been placed extended on top of four vessels. A small jade pendant was found near the neck, as well as a jade bead shaped like a ear of corn which was found near the mouth. A few pieces of pyrite and a large amount of pigment (green and red) were found near the pelvic area (fig. 17) (Santasilia 2012).

In 2012 an intrusive burial (Burial 9), dating to the Terminal Classic period, was excavated at the western façade, close to the summit. It had been discovered from the inside of the baulk created when excavating Burial 7, but, due to safety reasons, it was necessary to approach Burial 9 from the outside. Burial 9 was excavated by Reiko Ishihara-Brito (see BVAR publication 2013) who further excavated what turned out to be a stair block on the western staircase façade which contained yet another burial (Burial 11). Burial 11, dating to the Early Classic period (AD 250-600), contained a male, oriented with head to the south. He had with him just a single vessel, along with four jade block-beads, a stingray spine, and a jade bead (fig. 18).

In 2013 excavations were conducted midway on the western staircase just in front of the aforementioned stair block. Here Burial 12 was uncovered. It was in a crypt covered by small capstones. The tomb contained one individual (male) with the head pointing to the south. The grave goods associated with this tomb included a very well preserved vessel, which resembles vessel 4 from Burial 7. The vessel is likewise decorated with a captive/ancestor on the side (fig. 19 and 20) (Marc Zender personal communication, 2013). The vessel had a lid with a peccary head attached on top, as well as a similar anthropomorphic individual decorating the lid. The tomb, based on the vessel, has been dated to c. AD 450.

Another very special artifact was uncovered in Burial 12: a beautifully engraved oyster shell with an elaborate image which was only visible after it had been carefully cleaned and viewed in the right light. The image was identified as the rain god Chaac by Marc Zender (personal communication, 2013). Michael Coe (personal communication, 2013) suggests that the individual could also be GI (Palenque Triad) as he has certain similar characteristics to which he adds that GI and Chaac are hard to distinguish and argues that GI usually has a spondylus shell over his ear whereas this individual has a jade ears flare. The shell was intended to have inlays of jade in all of the small incisions, but only five small fragments were recovered (fig. 19).

3.3. Objectives and Research Orientation of investigation in 2011

In 2011, the objective of the excavations at Structure B1 was to investigate the terminal architecture at the summit (excavation unit B1-1) as well as investigate the interior of the structure (excavation unit B1-2). Although Structure B1 had been excavated prior to 2011, little was known about the large structure as the excavations of both Schmidt and Ball were neither published nor available.

3.4. Unit B1-2

Unit B1-2 started out as a 200 cm by 200 cm unit but had to be extended as well as divided several times as the composite of the structure changed, for example divided east-west, as the soil towards west was clearly different from the soil in the eastern part. Eventually the unit where Burial 7 was uncovered was designated B1-2BX. In 2012, excavations on the eastern part of the summit, were initiated as B1-4, but later changed to B1-2East and the western side including B1-2BX was re-designated as B1-2West for further reference on the same area of the structure. Unit B1-2(West) turned out to contain not only three caches but also one of the richest tombs to be unearthed at Cahal Pech with more than a hundred special finds.

3.5. Summary

The Eastern Triadic temples have been described, focusing on the excavations of Structure B1, which have provided a rich insight to the funerary traditions of Cahal Pech. Previous investigations have been addressed, and the objective and method for the 2011 excavations states.

Chapter 4: Description of caches and Burial 7

4.1. Caches: Description and contents

Excavation in 2011 at the summit of Structure B1 revealed three caches before reaching Burial 7. Definition by W. R. Coe (1959:77): “*Caches refers to one or more objects found together, but apart from burials, whose grouping and situation point to intentional interment as an offering*”

The first cache discovered was a double pointed biface made of a white transparent chert. It was found close to the surface near the western façade. However, excavations from 2012, just a bit further west on the summit of the structure revealed two similar double pointed chert bifaces in the same white transparent color. It is probable that they could have been from the same cache as an offering to the individual (Burial 9) which was found at the top of the western staircase of the structure but, due interference caused by erosion and roots from trees, had been displaced. According to Jaime Awe (personal communication, 2011), chert bifaces as well as celts are known to be found in threes.

The second cache had two unslipped lip-to-lip vessels which were both Belize Red (see Gifford 1976: 255-257). The vessels were empty and showed no evidence of organic material. The upper vessel, which had small nubbin feet, was very well preserved and only broken into two large pieces. The lower vessel was heavily eroded and was broken into many pieces. This cache was found in the southern end of the unit not far above the chert layer, covering the tomb and it is likely to have been associated with Burial 7.

The third cache was found eastward of where Burial 7 was found. Here lay seven vessels broken and spread out extending c. 2 meters from north to south. All the vessels are Dolphin Head Red (Gifford 1976: 227-230) in different variations: Five vessels were bowls, one was an almost complete dish, and the last vessel was an egg-shaped vase. Whether this cache is associated with the Burial 7 or not is speculative. The cache is not directly associated with the tomb but, given the abundance of material in the tomb, it is possible that the Maya who were responsible for the burials/maintenance/construction on Structure B1 at a later time offered seven vessels when next phase of architecture was constructed.

4.2. Burial 7: Description and Contents

Definition of the burial is based on the description given by A. Ledyard Smith, focusing on his excavations at Alter de Sacrificios (1972: 212): “*The term burial includes everything connected with an interment: grave, skeletal, material and associated objects. The term grave is*

used as a general heading for various types of resting places for the dead: simple, cist and crypt.”

Simple: unlined hole in the ground or inclusion of a body in the fill during construction

Cist: grave with definite outlines, either the sides of an excavation into structural fill or stone walls –no capstones

Crypt: more carefully walled grave, more elaborate, and always with either capstones or wooden beams

Grave type: Crypt, elaborate walled with capstones above

Location: Structure B1, Plaza B, Cahal Pech, Excavated c. 200 cm below surface

Condition: Good

Sex and age: Three, possibly four individuals: one male, one female, one unidentifiable (only the feet) and other remains indicating: female. The male and female: adults over age 30 (See Appendix 2 for report on the human remains by Anna Novotny)

Position: Male and female: articulated, fully extended, supine. Third individual: feet to the north. Other remains found in and above vessel #4, vessel #7 and vessel #8.

Orientation: Male and female; head to the north. The 3rd individual: feet to the north.

Inventory: A Chank (conch) shell inkpot, eight ceramic vessels, two jade pectoral pendants, one jade figurine pendant, three antler rings (two engraved with hieroglyphs), four conch shell pendants with obsidian and spondylus inlays, three green stone celts, six jade ear flares (four front, two back), eight styluses with cinnabar, one hand-shaped bone spatula with cinnabar, three obsidian blades, seven spindle whorls (limestone and quartzite), six jade beads, two jade pearls, a large amount of both spondylus and conch mosaic pieces, shell ornaments, large pacific spondylus shells, large atlantic spondylus shells, one carved jaguar tooth, 3,290 perforated animal teeth (which is a total of (MNI) 398 dogs, one peccary and one jaguar), carved pins/needles, stingray spine, perforated (for hanging) jaguar femur, jaguar humerus and deer antler, pyrite fragments, grey fox mandible with cinnabar, several counters, two ceramic adorns, and one pin fragment with glyphs. Immediately above the cap stones a large amount of chipped chert had been disposed across the tomb. 120 kg of chert was removed.

Date: Carbon dating and strontium analysis is still in process. The ceramics indicate that the vessels are from late Early Classic till early Late Classic (600-700 AD)

Discussion: After the removal of the chipped chert and the six cap stones, of which three had collapsed into the chamber and three had remained in situ, the first vessel (see Chapter 5 for

analysis of the vessels) was revealed in the southern end. It was a polychrome stucco vase (vessel #1), adjoining it was a large red dish (vessel #2), and hidden behind vessel #2 was a smaller dish (vessel #3). In the northern end vessel #4 was revealed, a beautiful polychrome basal flange dish, which was broken into five large pieces and stood partly upright, containing both human remains and the first of the three green stone celts. West of vessel #4, a tall fluted cylinder vase was exposed (vessel #5). East, below vessel #4, a small cream polychrome dish (vessel #6) was located. Between the tall fluted vase (vessel #5) and the cream dish (vessel #6), immediately below the polychrome basal flange, another two vessels were located. A smaller basal flange dish (vessel #7) was situated inside a larger red dish (vessel #8), both standing somewhat upright.

Among the vessels in the northern end, several other artifacts were uncovered (the only artifacts found among the vessels at the southern end were seven spindle whorls). Sporadic human remains were uncovered which had been placed inside and on top of vessel #4 and vessel #7 and vessel #8, the bones have been identified being female. The greenstone celts were uncovered among the vessels in the northern end as well as the deer antler. Several jade ear flares were uncovered: on the first individual, the ear flares were still in situ, placed by the ears as if the deceased had worn them into the grave. Most of the artifacts were recovered from the northern half of the tomb had been placed on the torso of the deceased or above the head.

The distribution of artifacts is challenging (see Chapter 5, where I discuss the artifacts) and, although most of the grave goods seem to belong to the upper two individuals, it is not unlikely that artifacts were reused from the first interment. And, therefore, some of the artifacts belonged to the third and lowest individual. However, a large number of the artifacts uncovered appear to have been personal to the upper two individuals.

Scattered around the north end, a large amount of perforated dog teeth were uncovered appearing to be divided into three smaller areas. Neither the two jade bar pectorals nor the jade figurine pendant were placed as if hanging off the neck; all were found above the head of the deceased as in a cluster of adornments along with the three bone rings. Bone pins and styluses were found mainly around the center of the tomb; interestingly many of them were covered with cinnabar as were several other artifacts, such as the hand-shaped spatula and the perforated jaguar humerus. Hematite/cinnabar was detected on the skull of the second individual. I suggest that the second individual and his belongings were covered with cinnabar before the upper individual was interred (see Chapter 5 for analysis).

The four conch shell pendants with loose obsidian and spondylus inlays were likewise spread over the northern area. A total of four was found, but only one was found still containing the inlays in situ although inlays for the rest were uncovered as well as spare inlays. The conch shell inkpot was found placed upside down. This was likely to protect it and its color contents, having remnants of blue, red, black, and, possibly, white, yellow or water in the last compartment.

Three obsidian blades of which one appears to be a bloodletter, as well as several jade beads, pyrite fragments, a grey fox mandible with cinnabar, several stone counters (small pebbles), and two ceramic ornaments were uncovered in the northeastern area. Seven spindle whorls (limestone and quartzite) were found near the torso area. A large number of both spondylus and conch mosaic pieces, shell ornaments, large pacific spondylus shells, and large atlantic spondylus shell was found all over the tomb.

Carved pins/needles and stingray spine were found near the eastern baulk as well as near the area of the skull. A small pin fragment found in the northern end was not discovered to contain engraved hieroglyphs until it was cleaned. The jaguar femur and jaguar humerus had been placed against the eastern baulk. Near the southern end of the eastern baulk, a small area displayed burnt marks as the area was partly covered with charcoal pieces and soot stains. Samples were taken and are still being processed. As the results are still awaited, the result unfortunately cannot be ready in time to be incorporated here. Neither can the soil samples, but should the soil samples reveal any positive results about the contents of the vessels; they will be published in the 2014 BVAR publication by Angie Perrotti.

The tomb contained two complete individuals, articulated, extended and supine (see Appendix 2 for report on human remains). The first individual (upper) was a female, poorly preserved, and, according to Anna Novotny (2012), *“No pathologies, evidence of trauma, or culturally motivated body modification were observed.”* The second individual was a male, likewise poorly preserved. Albeit articulated, his lower leg bones were disturbed (shifted around 180 degrees) as was the skull which was located further east. Novotny (2012) states: *“The individual suffered traumatic injuries to his left elbow and left ankle – both likely disarticulations of the joints. Neither joint healed well; the individual suffered from severe osteoarthritis secondary to the trauma. Movement of the elbow and ankle were almost certainly impeded.”* Furthermore, feet bones of a third individual were found in the north-west area of the tomb below the two other individuals, lying close to the floor of the tomb. Several random spare bones

were found in and among the vessels in the northern end of the tomb. The analysis of the bones shows that they belong to at least one female.

It is from the Late Classic period in the Maya lowlands that most references are to rites and rituals concerning interments. Most important was the preparation leading up to the interment and there are a few references describing a lapse of time between death and of the actual interment of the *Ajaw*: three to nine days have been detected at Mayan centers like Piedras Negras, Copan, and Dos Pilas (Fitzsimmons 2009: 60, 62). Ancestry played an important role among the elite, with both religious and political concepts expressed in ceremonies and rituals, like accession or birthdays and deceased *Ajaws* would witness these ceremonies. Another ceremony performed by the elite was for the living to seek contact with their ancestors through re-entry of a tomb and obtaining the human remains of a deceased *Ajaw*. This ceremony could involve interment and alteration of the tomb as well as activities which could be performed within the tomb including (re)moving the human remains (Fitzsimmons 2009: 142). To re-enter a tomb it was necessary to remove masonry as well as possibly the capstones. Here the ceremony involving alteration such as burning incense or torches could be performed within the tomb; the sprinkling of red pigment and possibly rearranging the human remains would occur. Following the ceremonial ritual, the tomb would be sealed, either permanently or temporary (Fitzsimmons 2009: 142, 164).

Re-entry has occurred at Burial 7 where the human remains from the primary interment, which had the head oriented to the south, had been almost completely removed. Burial 7 also show evidence of a burned area at the southern end of the tomb as well as red pigment detected on several of the artifacts along with the skull of the second individual. Furthermore, re-entry has occurred on probably at least two occasions as the two upper interred seems to have been interred within an unknown interval but presumably long enough for the lower individual to have decomposed in order to shift around his leg.

The possibility exists regarding the primary interment in Burial 7, as only the feet bones were found, that the deceased ancestor had been re-arranged. The bones found among the vessels in the northern end of the tomb are those of a female. Should these bones be the original re-arranged bones (which we will never find out) would suggest that this elaborate crypt, in the largest of the triadic temples, could have been built for a female. The two flanking temples both contained burials (Structures B2 and B3). Excavations on Structure B2 (northern temple) was excavated by Jaime Awe in 1988, and had contained two burials. The sex of the individuals is unknown due to poor conservation within the structure. Structure B3 (southern temple),

however, albeit heavily looted, contained one burial excavated in 2012 (see Conlon BVAR publication, 2013). This burial contained the human remains of a female, with just a few grave goods enclosed. But the presence of a female in the flanking temple further established that the triadic temples were not exclusively for males, and the crypt which contained Burial 7 could originally have been built for a female. Or re-arranging of the bone, had meant to completely remove the remains of the primary interred, and the female remains could be associated with another ancestral ritual, or possibly have been part of an offering.

I believe the tomb was temporarily sealed during the Late Classic re-entry where the male individual was interred. I doubt the chert could have been placed on top of a sealed tomb containing the second individual (male) and then being reopened to enter the first individual (female). Instead, the tomb would have been left unsealed, and, later on, when the female had passed on, the tomb was finally permanently sealed and the chert deposit distributed above the capstones.

As indicated above, the two upper individuals from Burial 7 were oriented with the head to the north. According to Jaime Awe, Burial 7 is the only burial at Cahal Pech to contain individuals in a supine position with the head to the north. Jaime Awe (2013: 43) states that: *“both practices depart from the Belize Valley burial pattern of prone (face down) and head to the south orientation”*. There can be several reasons for this, and as Jaime Awe (2013:43) postulates, it is possible that it simply was an error on the part of those responsible for burying them. But this does not seem likely. Jaime Awe continues to argue that it is likely based on the time period, (c. AD 600-700) that Cahal Pech could have been influenced by larger cities like Caracol a large ancient city, located within the Mountain Pine Ridge (for map, see fig. 1.2).

The explanation I find most probable is that the individuals were not local and, therefore, had different traditions. This is not necessarily because the heads were towards north, as they conveniently seem to have reused the tomb, but because they had to choose either head to the north or head to the south. Strontium analysis is being conducted on the individuals, the results are still pending and therefore cannot be taken into consideration here.

4.3. Summary

Location and contents of the three caches as well as of Burial 7 has been introduced and the individuals of the burial have been discussed. The probability of re-entry and foreign origin of the interred has been addressed.

Chapter 5: Artifact Analysis

5.1. Introduction

This chapter describes the different artifacts associated with Burial 7 excavated at the summit of Structure B1. I will analyze the artifacts as well as give an interpretation function of the given object. As a large number of special finds were uncovered, several of the artifacts may be analyzed as a group, rather than as a single object, as for instance shell mosaic pieces or jade beads.

As Burial 7 contained two complete individuals as well as part of one or two other individuals, assigning the artifacts to any of the individuals, may prove to be difficult, and there is no way to know if grave goods was borrowed from the primary interment (of whom only the feet remain). However as most of the grave goods were found near the two upper individuals, it is likely they are associated with the deceased of the second interment. Several of the artifacts may be attributed to certain professions as well as being gender related.

Based on the analysis, by myself and Jaime Awe, of the vessels found in the Burial 7, the tomb can be dated to the end of the Early Classic period and start of the Late Classic period (AD 600-700), probably leaning closer to the Late Classic period.

All ceramic vessel analysis is based on the book by archaeologist, James C. Gifford *Prehistoric pottery analysis and the ceramics of Barton Ramie in the Belize Valley* from 1976. This is the only book available with a thorough analysis of ceramic vessels. Although not up to date, no other book seems to be able to replace it. Dates and phases referred to in brackets are based on the analysis by Gifford. The phases associated with Uaxactun are based on the excavations conducted by Robert E. Smith, who collaborated with Gifford and Smith (fig. 21).

5.2. The Cache Artifacts

There were three caches associated with the excavations of Structure B1 at Cahal Pech in 2011. The probability that the content of the caches is associated with Burial 7 will be discussed below.

5.2.1. Cache 1

Cache 1 (fig. 22 and 23) contained a double pointed biface in a whitish transparent chert: weight: 108 g, length 16.6 cm, width: 5.5 cm and thickness: 1.2 cm. As I have already proposed, it could be part of a set of three double pointed bifaces, as two more were found during excavations in 2012. Whether the three bifaces are part of one or several offerings is speculative,

however being located stratigraphically close to the surface of the structure would suggest an offering placed much later in time than Burial 7, and could, therefore, likely to be an offering to any of the buried within the temple, where so far 12 burials have been excavated, or they could be an offering to the gods.

5.2.2. Cache 2

Cache two (fig. 24-26) , containing vessel 1 and 2, is stratigraphically more likely to be associated with Burial 7 as the cache with all likelihood was placed there, after the sealing of the tomb, as the two vessels were found in the fill placed on top of the layer of the chipped chert covering the burial. The vessels, however, show no resemblance to the elaborate vessels found inside the tomb, and are therefore possibly a later offering.

Vessel 1 (rim diameter: 20.9 cm, height: 7.5 cm) and vessel 2 (rim diameter: 22.8 cm height: 7.5 cm) are both Belize Red vessels, dating to the Spanish Lookout phase (AD 700-1000) (Gifford 1976: 255-257). Their form, however is similar to small bowls with small tripod feet like those of Xunantunich Black-on-Orange (Gifford 1976 fig. 172 and Benque Viejo Polychrome (Gifford 1976: fig. 173 l-m; Thompson 1939: plate 13b1-2) has similar vessels that he calls Vinaceous tawny tripod bowls.

5.2.3. Cache 3

Cache 3 (fig. 27- 30) was a set of seven broken vessels (#3-9) located east of the tomb as well as above. Whether they were deliberately broken or broke due to the pressure of the construction fill placed on top is uncertain. The vessels do not seem to be associated stratigraphically and, like cache 2, these vessels do not seem to resemble the style of the vessels found among the grave goods from Burial 7. Based on location I would rather think the vessels were associated with an offering prior to adding a new phase of construction to structure B1. As Burial 7 is considered to be associated with the third phase of construction, cache 2 would have been an offering placed as the second phase of construction was added to Structure B1.

Vessel 3 (rim diameter: 22.9 cm, height: 8cm), vessel 4 (rim diameter: 23.3 cm, height: 7.5 cm), vessel 5 (rim diameter: 22.5 cm, height: 6.7 cm), vessel 8 (rim diameter: c. 22 cm, height: 8.4 cm) and vessel 9 (rim diameter: 22.1 cm, height: 8.1 cm) are all Dolphin Head Red bowls with a red slip and no alternate decoration (Gifford 1976: 227, 230, fig. 137-138).

Vessel 6 (rim diameter: 14.2 cm, height: 21.6 cm) is a red bowl with incisions/grooves that bears resemblance to an Orange Walk Incised in form but not in paste (see Gifford 1976: 213 fig. 128g). It is more likely related to the Rossario Incised of the Mount Pleasant Group

(Gifford 1976: 196-197 fig. 111a-h, j-m) based on the paste, slip, plus other decorative features. Vessel 6 also bears resemblance to Cameron Incised from Uaxactun (Smith 1955, fig. 50a, II Smith & Gifford 1966: 145).

Vessel 7 (rim diameter: 47.6 cm, height: 12.4 cm) is a Dolphin Head Red vessel, dating to AD 700-1000 (Spanish Lookout phase) and is a fragmented large dish, (Gifford 1976: 227, 230, fig. 137-138).

5.3. The Ceramic Artifacts

Besides the eight vessels found in Burial 7, two small ceramic ornaments were found.

5.3.1. Vessels of Burial 7

Vessel 1 (fig. 31) (rim diameter: 19.7 cm, height: 17 cm) is a stucco vase dating to AD 500-600 (the Tzakol 3 / Tepeu 1 phases) (see Smith 1955: II fig. 1 a, b, e, f). Preliminary analysis of the design indicates that it represents a monstrous serpent (Marc Zender personal communication 2013). The stucco is in beautiful colors all very well preserved: light blue-green, yellow, light red and white. It has not been possible to clearly identify the type of vessel, as so far no other identical vessel seems to have been found. However, vessels of this appearance suggest it could reflect the central Mexican style used by the people of Teotihuacan, which could indicate certain influence or trade (Smith 1955: 55 I). Vessels with similar stucco and colors have been found at the site of Kaminaljuyu in Guatemala and have been dated to c. AD 400-500, the vessels are similar vases but on tripod feet. Vessels similar to those from Kaminaljuyu, also with tripod feet, stucco and bright colors have been found at the site of Copan in Honduras, dated to AD 525, and represents evidence of interaction with Teotihuacan. One of the vessels from Copan is decorated with a possible monstrous serpent (Fields and Reents-Budet 2005: 224, 230). It seems evident that vessel 1 from Burial 7 is representing interaction with Teotihuacan.

Vessel 2 (fig. 31-32) (rim diameter: 38.8 cm, height: 10.4 cm) is a red dish resembling the Mount Pleasant Red group and has been classified as such, dating to AD 600-700 (Tiger Run phase) (Gifford 1976: 193-195).

Vessel 3 (fig. 31, 33) (rim diameter: 27.7 cm, height: 8.3 cm) is orange with red bands on the side. It shares the modal and decorative similarities with vessels from the Mayan site of Uaxactun in Guatemala (the Tepeu 2-3 phases AD 600-850) (See fig. 37b 1-3 Smith 1955). However, the Uaxactun vessels are Vinaceous Tawny ware whereas the Cahal Pech vessel seems more confidently placed in Petén Gloss ware types of the early Classic Period. This is equally true of its temper (calcite), paste and slip characteristics. This vessel also shares considerable

characteristics with Dos Hermanos Red: Variety unspecified, of the Hermitage Complex at Barton Ramie (Gifford 1976: 160). Gifford notes that Dos Hermanos Red vessels include flaring-side bowls with nubbin feet. Vessel 3 further show similarities with the black tripod flaring-side dish: Achole black (fig. 10t from Smith: 1955).

Vessel 4 (fig. 31, 34) (rim diameter: 30 cm, height: 11 cm) is a basal flanged polychrome ring base vessel, identified as a Dos Arroyos Orange Polychrome dating to the late Early Classic period c. AD 450 (the Tzakol 2 phase) (See Smith:1955 vol. 2 fig. 3e, fig. 28, a9 fig. 76b5). Gifford (1976:175 fig. H) places it within the Hermitage complex phase (AD 300-600) (See also Thompson 1939 fig. 45).

After vessel 1, vessel 4 is the most extraordinary. The image on the side is typically identified with ancestors or captives (Marc Zender personal communication 2013). A few other vessels with this image have been found at the site of Cahal Pech: a large sherd was found associated with a Terminal Classic intrusive child burial in a bench in Plaza A (Jaime Awe personal communication 2013). Furthermore, the 2013 season uncovered another such vessel in a tomb at Structure B1, dating to c. AD 400-500 (designated as Burial 12, see future 2014 BVAR publication). On top of the vessel from Burial 12 was a lid with an attached ceramic peccary head, presumably used as a handle (fig. 19). Along the sides of the vessels as well on the lid were depictions of a similar captive/ancestor figure as on vessel 4 from Burial 7. At the Mayan site of Dos Hombres, in northern Belize, a tomb (in Structure B-16) was excavated in 1997, the tomb contained a similar vessel and lid which both were adorned with depictions of an anthropomorphic figure, recognized as the ancestor/captive (Houk and Valdez 2010: 155).

Vessel 5 (fig. 31, 35) (rim diameter: 9.5 cm, height: 23.5 cm) is a dark brown fluted vase, likely a Gallinero fluted vessel (Gifford 1976:262-265 fig. 166 d-g) with resemblance to the Silkgrass fluted (Sortero group) from the Tiger Run Complex, AD 600-700 (Gifford 1976:211-212, fig. 127 j-k). Similar vessels have also been found at Tikal, dating to AD 700-850 (Culbert 1993: fig. 91a-b).

Vessel 6 (fig. 31, 36) (rim diameter: 18.6 cm, height: 5 cm) is a cream polychrome vessel with red and black pattern on the exterior. Possibly a Caldero Buff polychrome (Gifford 1976:179-181, fig. 10, Smith 1955:76-86) or possible a Sibal Buff polychrome (Tiger Run Complex) (Gifford 1976: 209-210; Smith 155; fig. 2, i-n) dating to AD 600-700 (the Tepeu 1 phase)

Vessel 7 (fig. 31) (rim diameter: 24.5 cm, height: 9.5 cm) is a basal flanged ring base dish, like vessel 4, identified as a Dos Arroyos Orange Polychrome (Hermitage complex phase)

(See Gifford 1976:173-179, Thompson 1939: fig. 45 a,c-d). This vessel is practically identical in form and decoration to fig. 211a-e from Willey et al. (1965: 352) which they identify as a Basal Flanged bowl of Actuncan Orange-Polychrome, c. AD 400-500 (Hermitage Complex phase). In 2012 I excavated an identical vessel which has been identified as belonging to Burial 2 (which was excavated in 1969 by Peter Schmidt) just to the east of Burial 7, although Burial 2 was closer to structure surface (See photo).

Vessel 8 (fig. 31) (rim diameter: 30.5 cm, height: 7.4 cm) a red dish, Mount Pleasant Red group, dating to the Tiger Run phase (AD 600-700) (Gifford 1976: 193-195).

Many of the vessels are dated to the Late Classic period, which establishes the date of the latest interment. As a few of the vessels (1, 4 and 7) are dated to the Early Classic period, it is possible that these vessels had been re-used from the primary interment. The primary interment could be dated to the Early Classic period (AD 250-600) as the crypt, albeit more elaborately executed, resembles in style the crypts of Burial 11 and Burial 12, which both date to the Early Classic period.

5.3.2. Ceramic ornaments

Two small ceramic ornaments (fig. 37h) were found in the northern end of the tomb. They do not seem to be associated with any of the other artifacts, and a possible usage is uncertain. Excavations from Tikal, in Petén report of similar ornaments. The two similar ornaments found at Tikal are dated to the Early Preclassic period, and are made of grey limestone and white shell respectively (Moholy-Nagy 2008: fig. 144d and 145c). These two small ornaments are not able to inform us much about the profession of the interred as the usage is unknown. However, as similar ornaments have been found at Tikal, this could indicate that the shape is not a coincidence, and there must have been interaction between either Tikal and Cahal Pech, or a third location, where the ornaments could have been produced.

5.4. The polished stone artifacts

Burial 7 contained a somewhat large amount of polished stone artifacts, mainly made of jadeite (commonly known as jade, as which it will be referred to here) or serpentine (a type of green stone)¹⁴. The Jade found at Cahal Pech originates from the Motagua River approximately 300 kilometers away in Guatemala and is not easily accessible, which makes jade an exotic object almost exclusively associated with the elite (McAnany 1993: 220). Moreover, jade was the first

¹⁴ There are two kinds of jade, the nephrite and jadeite, but it is only the jadeite which can be found in Mesoamerica, and the green color is caused by the presence of sodium, aluminum, iron and chromium.

medium on which hieroglyphs were inscribed during Preclassic period (Fahsen and Grube 2005:76-77).

Burial 7 also contained obsidian, which is volcanic glass. The main obsidian source is the approximately 500 kilometers away in the Guatemalan highlands near El Chaya where the obsidian is a black /dark (transparent) variation, which is the predominant variety used in Belize. Besides from the black obsidian, green obsidian is found in central Mexico (near Pueblo and Pachuca) but it is rarely encountered within the Mayan Lowland (McAnany 1993: 220). Obsidian is like jade, considered an exotic good praised by the elite, but not exclusive to the elite, and obsidian has been regularly found during excavations among the common people (not only associated with burials). Obsidian gets extremely sharp and was used for cutting. Therefore, it was of high value among the Maya, especially as metal tools were not available until the arrival of the Spanish.

5.4.1. Jade bar pectorals

Two jade bar pectorals (fig. 38f) used for adornment, were uncovered: the first one was 5.1 cm long with a diameter of c. 1.8 cm, the second one was 15.3 cm long and with a radius of c. 2.5 cm. Both pectorals were in a dark green jade, elaborately carved, and perforated from end to end. The jade bar pectorals were found in the northern area of the tomb, near the head and neck area of the deceased, and were probably placed somewhat articulated. Jade bar pectorals are common among grave goods of the elite. The individual interred in Burial 2 had one jade bar pectoral, but in a different style (fig. 14). Similar jade bar pectorals, dated to AD 400-500 are also detected at Teotihuacan along with ear flares similar to those found in Burial 7, but in this case strontium analysis has indicated that the interred originated from the highlands of Guatemala

5.4.2. Jade figurine

The jade figurine (fig. 38e), which was found at the neck area of the second individual, is 5.6 cm long, 3.4cm where it is widest and 1.8 cm where it is thickest. It is a clear green jade and perforated sideways through the upper part. It is elaborately carved and depicts an anthropomorphic figure, holding the hands folded in front of the abdomen. A strikingly similar jade figurine, dated to the Early Classic period, has been found at Tikal Apart from the hairdo, it appears to have the hands in the same folded way and of same size (Moholy-Nagy 2008: fig. 108b). This could indicate that a stereotyped form was used across the lowlands or that the figurine found in Burial 7 was imported, either from Tikal or that both had been imported from

the same place, it is certainly peculiar if it is coincidental that the two figurines are so similar (fig. 39).

5.4.3. Jade celts

Three jade celts (fig. 38g) were found in Burial 7. The three celts are of a dark green color, and all three are c. 16cm long, 4-5cm wide and 1-1.4cm thick. All three of the celts were found in and around the vessels 4, 7 and 8, located in the northern end, and were not found near either of the individuals. Celts resemble the head of an ax, thus the name, and are ceremonial plates supposed to hang off a belt around the waist. Celts have furthermore been associated with stelae based on their shape (Taube 1996: 50). In Burial 2, likewise dated to the Late Classic period, and located just east of Burial 7, among the grave goods of the interred, three jade celts had been found, located by the left femur. Burial 2 contained several similar artifacts with Burial 7, along with the celt and a jade bar pectorals, a few similar vessels (vessel 5 and vessel 7) were found. It is not unreasonable to believe that the celts could have belonged to one of the two upper individuals, as the two tombs are dated to be relatively close, maybe just 50-100 years apart.

5.4.4. Jade ear flares

Burial 7 contained six jade ear flares, (fig. 38h) all c. 3.5 cm in diameter. One set which was plain (no decoration), in a clear green color, was found by the skull of the second individual and had remnants of hematite/cinnabar on it (See below for the importance of hematite/cinnabar). The other four ear flares, which were found in the northern end, were likewise a clear green color naturally containing mica (a white/silver mineral) in it. The four ear flares are two separate set, where one set resembles a flower and one set has a countersunk line.

Ear flares are often found within elite burials. At Tikal (Burial 196 dated to the Late Classic period) 12 similar flares were found, the flares were used as a diadem, and not as ear flares. Two flower shaped disks had been at the rear of the diadem and two with countersunk lines had been the front of the diadem, and four plain flares on each side (Moholy-Nagy 2008: fig. 115e) (fig. 40).

The number of flares found at Cahal Pech, is not enough to create a diadem, do we know and at least one set belonged to the second individual as they were found by the skull. The two other sets of flares however could have been placed on some organic material providing decoration for a headdress, which had it been placed within the tomb and since decomposed. They may simply be ear flares, but as they are just like the ones from Tikal I, dating to the same period, I believe it is possible they could have been ornaments worn differently for different occasions.

5.4.5. Jade beads

Several jade beads (fig. 38a-d) in various shapes were obtained from Burial 7. Like so many of the other artifacts, it is difficult to associate the beads with one of the individuals as well as to know whether they belonged to one necklace or several. 15 beads in total were found: two beads shaped like cacao beans (although not identical), 11 beads in different round shapes, as well as two oval pearl-shaped beads. All were in a clear dark green color, all found in the northern end of the tomb above the head. The beads resembling cacao beans are likely to represent the importance of cacao, as cacao seeds/beans often were used as a way of payment (See Chapter 6).

5.4.6. Obsidian blades

Three obsidian blades (fig. 37i-k) were obtained from Burial 7, of which one was a 7.9 cm prismatic blade, also known as a bloodletter, one was a 6.8 cm blade, and one was a 2.4 cm blade fragment. The bloodletter had remnants of hematite/cinnabar (mineral of red coloring), of which several of the artifacts have shown evidence. Obsidian blades are commonly found in burials, not least at Cahal Pech where both Burial 2 and Burial 12 at Structure B1, as well as Burial H1, from Plaza H, all contained obsidian blades.

Bloodletting was used in a ritual for veneration and summoning of the ancestors. Bloodletting was caused by piercing the tongue, ear or penis with a sharp tool, like an obsidian blade or a stingray spine. This ritual has been depicted often in the iconography, for instance in the Late Classic lintel 24 from Yaxchilan in Mexico, where a female is depicted piercing her tongue with a thorn-lined rope (fig. 41). Bloodletting and veneration of the ancestors was possibly a way for the elite to sanction power and authority, a ritual which has been detected as far back as to the Preclassic period (Davletshin 2003: 1, McAnany 1995: 126-127).

5.5 The Chipped Stone Artifacts

The only chert found associated with the tomb was the immense amount of chipped chert removed from above the capstones of the tomb. When the chipped stone was reached, the probability of a burial below was high, as chipped stone deposits above burials have been detected on various occasions, like at Burial 116 from Tikal, which had a similar deposit of chipped chert and obsidian above the burial. Chipped stone deposits are considered distinctive among burial practices in the Petén area (Triak 1963: 3).

Above the capstones, which were placed as a roof over the tomb chamber, no less than 120 kg of chert was carried away, all ranging in size from fairly large (including cores) to tiny pieces.

It has been proposed by Rosemary Joyce that different artifacts uncovered in larger deposits may resemble different layers of cosmos (Joyce 1992:498). Joyce suggests that a layer of chipped chert would represent the human world (as opposed to the underworld and the heavens). On what Joyce bases her hypothesis that chert should represent the human world is unclear. But 120 kg of chert removed from the tomb roof must surely represent some kind of ritual, and cosmological connotations is not unlikely. Another reference to earth (the human world) is represented by the metaphor of turtles and crocodiles as being the earth floating in a primordial sea, to which one could argue that green stones (jade or serpentine) rather than chert would make more sense to represent the human world (Fitzsimmons 2009: 18).

5.6 The worked shell artifacts

Burial 7 contained quite a few astonishing shell artifacts: for example the conch shell inkpot with remnants of paint. Dr. Michael Coe, one of the leading scholars on Mayan culture and author of several books concerning Mayan art and the kingship institution, including the profession of scribes, called the find *fabulous*, as inkpots never have been found with three or four colors until now. Further it is an inkpot found in full context (personal communication 2012). The conch shell inkpot strongly indicates the possibility that one of the individuals may have been a scribe who was interred with some of his tools.

Four shell pendants made of conch shell, with red shell and obsidian inlays were also found within Burial 7 in the northern end. During my investigation of Burial 7, I have not come across other such artifacts within the Maya area. Other small ornament made of shell was uncovered as well as shell mosaic pieces, which could have belonged to a mask.

5.6.1. Conch shell inkpot

A white west Indian chank shell (found in the Caribbean) often referred to as conch shell, cut in half, was turned into this unique inkpot (fig. 42b) with its natural compartments perfect for containing paint. Found upside down, it was an astonishing moment when it was removed and turned around to reveal the spectacular colors: red, black, blue, and white/yellow/water. This is the only inkpot ever found within the Maya area with remnants of more than just red color. The inkpot measures: 15.9 cm long, 7.7 cm wide, 3.5 cm height, and weighs: 109 g.

Inkpots are considered one of the most important artifacts, when it comes to recognizing a scribe or artist, as mentioned above, and the discovery of the inkpot at Cahal Pech is important to gain further knowledge about the profession of scribes, as it is possible to compare it with other grave goods of the interred. So far only a few inkpots have been found and even less has been found in situ. One shell inkpot found, provenance probably within the lowlands, dated to AD 600-900, today located at Princeton University, is adorned with hieroglyphs on the exterior side, with remnants of red paint in its compartments. A second shell inkpot, likewise with provenance probably in the lowlands, and dated to AD 600-900, is shaped like a hand (Reents-Budet 1994: 317). A third example of an inkpot is an inkpot made of ceramic, shaped like a conch shell and found inside Burial 116 inside Temple 1 at Tikal, dated to the Late Classic period. Today it is located in the adjoining museum by the entrance to Tikal. The individual interred in Burial 116 has not been identified as a scribe however. The inkpot shows no evidence of remnants of paint but is decorated with a large hieroglyph at the center, which has been identified as the glyph for *container* or *place for liquid*. (Reents-Budet 1994:317, Trik 1963:9) (fig. 43).

The reason why the interred at Burial 116 at Temple 1 in Tikal had for having a ceramic vessel resembling a conch shell inkpot possibly had to do with not having had access to conch shells at this particular time, and conch shells were difficult to come by as the sea is several hundred kilometers from Tikal. A ceramic inkpot was made to resemblance the conch shell, underlining the importance of this particular good. However, Burial 116 at Tikal has not been identified as a tomb of a scribe, but rather of an elite who, with all probability was literate, as he had no less than 180 pieces of worked jade found among his grave goods, signaling his status as being an *Ajaw* (Reents-Budet 1994:317, Trik 1963).

5.6.2. Shell pendants

Four white round shell pendants (fig. 42a) were found, all measuring: height: c. 4 cm, width: 3.8 cm and thickness 0.35 cm. They are made of conch shell with red spondylus shell and black obsidian inlays. Only one of the pendants was found with the inlays in situ. Spare inlays were found, and it was possible to figure out which inlays fit which pendant, as the empty spaces were perfectly shaped to fit the matching inlays, with two perforated holes at the top to be used for either hanging or attachment.

5.6.3. Ornaments

Several small shell ornaments, (fig. 42d-f) with usage unknown, were uncovered. Most noteworthy were: a little quadrafoil which contained a small separate nubbin inlay placed in the center of the ornament. This artifact has not been disturbed during interment as otherwise the nubbin would have been lost. It is possible the nubbin was attached with some organic glue, which later decomposed. Besides from the quadrafoil, a small star-shaped as well as a small flower-shaped ornament were found. The usage of these ornaments is uncertain, but excavations at Tikal have revealed similar ornaments which have been dated to the Early Late Classic, Late Late Classic, and Late Classic respectively, which is around the same time period as Burial 7 (Moholy-Nagy 2008: fig. 145h, 145m, 145o). As suggested the jade figurine from Burial 7, which bears striking resemblance to one excavated in Tikal, I do not believe the striking resemblance of these artifacts, can be a coincidence, whether they were produced at the same location, maybe even at Cahal Pech, or whether there was a stereotype among ornaments, which would not be unlikely considering depictions of Ajaws throughout the Maya area, are almost identically depicted in the iconography (fig. 44).

5.6.4. Mask mosaic

A large amount of small shell mosaics were uncovered but no artifact was recovered to which they could have been attached. Several of the mosaics are common mask attributes and it is possible they could all be assembled into a mask. I did not attempt to assemble them as it would be an impossible puzzle and would surely be assembled incorrect, not least as they may in fact not be part of a mask. Burial 2 excavated by Peter Schmidt in 1969 had contained a large quantity of shell mosaic pieces, which Schmidt assembled into two masks but with plenty of pieces to spare (fig. 42c). The use of mosaic masks covering the face of the deceased has been detected in the Central Petén, dating as far back as the Preclassic period, probably for both decorative as well as religious reasons (Fitzsimmons 2009: 92).

5.7 The worked bone artifacts

A large amount of artifacts made of animal bone were found in Burial 7. Two, presumably finger rings, engraved with hieroglyphs were among the most spectacular finds of the tomb. However several different pins and styluses further help to identify possible professions of the individuals, which will be further discussed in Chapter 6. Perforated long bones of a jaguar as well as perforated deer antler may tell us about religious rituals in which the individuals could have been involved.

5.7.1. Engraved bone rings

Three rings were found, two engraved (fig. 45b-c) with hieroglyphs and one without engraving. Only one of the rings was complete except for a small chip missing. The rings were probably made of antler and the one that is not broken measures: 1.64 cm height, radius of 1.86 cm, and 0.14 cm thick. Marc Zender has analyzed the hieroglyphs on the rings (fig. 46) (see Appendix 3 for report on the glyphs), stating that: “*the name is already attested as that of a mid-8th century king of Dos Pilas, Guatemala, though here it must be that of a namesake.*”

I find it interesting that one of the rings contain a reference to the lightening god K’awiil, as the perforated jaguar long bones (discussed below), also may be associated with K’awiil. This makes the artifacts likely to be connected, as these artifacts are both associated with K’awiil and could further be associated with the female individual. Maya queens were (at least in the Late Classic period) involved with religious rituals (Miller and Martin 2004:102) (see Chapter 6). Whether the rings were worn or not, and whether they were worn as finger rings is uncertain due to the small size. Although the female may have had smaller fingers than me, the rings could also have been worn hanging from a necklace, and could have belonged to both individuals.

5.7.2. Perforated long bones and antler

Three remarkable artifacts were encountered among the grave goods: (1). A perforated jaguar humerus (left) identified to have a so called cat hole (septal perforation), 21.5 cm long. (2) A perforated jaguar femur (right) with red hematite/cinnabar at ends and black pigment at center of the tube, 23.5 cm long. (3). A perforated deer antler from a white tail deer, 10.5 cm. Indicated by the perforations in each end of all the three artifacts, it appears that all three have hung around the neck on an individual (fig. 47a-c). See Chapter 6 for analysis of rituals involving long-bones, and for a possible distribution between the interred.

5.7.3. Pins and styluses

Burial 7 contained no less than eight styluses, one hand shaped spatula, one small fragment with glyphs (analyzed in 5.8.2.), three large pin fragments as well as three small pin fragments.

The so-called styluses are all but one very fragmented (fig. 45a). They appear to be identical and none has any engraving or decoration, besides red paint. The least fragmented was restored enough for photographs and measurements and is 24.4 cm long. It was found near the left leg of the second individual (male), and these are considered as being scribal tools used for writing or engraving. However, Burial 116 from Tikal, which contained the above mentioned

ceramic vessel shaped like a conch shell inkpot, likewise contained several pins, which have been identified as perforators and bloodletters, used for the bloodletting ritual (see below ###) (Triak 1963: 15, Fitzsimmons 2009: 89).

The small hand-shaped spatula, composed of two pieces, a tube bone which has been elaborately carved (6.1 cm), shaped in a one end like a hand, with fingers bend and spread as if something was supposed to be able to fit between the ring- and middle finger, and with an elaborate wrist decoration (fig. 45d). The other end of the tube was supposed to have been attached to a thin *spatula* (7 cm) which purpose is unknown but had broken off. The artifact is made of bone and has been analyzed by Norbert Stanchly, who states that the hand-tube part originates from a large mammal and the spatula most originates likely from a large bird, possible turkey, but undefinable.

In Burial 116 from Tikal, a similar hand-shaped artifact was found, however, this was a pin and not a spatula, and the position of the fingers is somewhat different, but the elaborate wrist decoration appears to be similar (fig. 48).

The three large pins and three small fragments of pins (fig. 47d-f), found in Burial 7, could be either associated with the pens of a scribe or possibly with the spindle whorls (see below), or even as described above, possible perforation pins, used for the bloodletting ritual. Two of the pins are decorated in one end and pointy in the other end, ranging between 10 and 16.5cm in length. The uncertainty of the usage of these pins is based on similar pins which have been found elsewhere, which all have been argued to have different usages. I have incorporated the different notions, as all are possible. However, as I am certain the male interred is associated with the scribal profession, I believe the several of the pins were meant as scribal tools. But as Burial 7 uncovered a large number of pins, it is possible they could be divided into all three usages: scribal, pick for spindle whorls as well as used as perforators in a bloodletting ritual.

The pens used by the Mayan scribes have been widely discussed as of which material they were made of. Most likely the scribes have had several pens made of different materials, which were used on different mediums (for example vessels, bark paper books, stelae). Pens made of for example feathers or other organic material are not likely to have been preserved in the humid environment in most of the Maya area. So far no archaeological evidence has been found, but the iconography show extensive evidence of pens made of both feathers and pens made of organic material (Coe 1997: 92).

Thus is it hard to say if the pens found in Burial 7 would actually be usable as scribal tool, as no feathers or pens of organic material were found. Possibly some of the bone pins were

substitutes for the organic material and were symbolic replicas of scribal tools. Or possibly the pens were merely decorative items used as an adornment and could have been placed in the hair or as part of a headdress.

5.7.4. Stingray spine

Two stingray spines were found in Burial 7, one fragmented (fig. 47j) into three pieces measuring a total of 7.8 cm in length and another stingray spine fragment measuring 2.1 cm. Stingray spines are associated with bloodletting, which were used in connection with ancestor veneration rituals and are often placed within elite and royal burials. Along with the stingray spine, obsidian blades and bone pins are often found together as all considered necessary tools by the Maya to perform the bloodletting rituals. Based on the Burial 7 containing both obsidian blades, as well as stingray spine and bone pins (the latter could have been scribal tools), it must be reasonable to conclude that at least one of the interred was involved with bloodletting rituals. The Late Classic burial Tomb 2 from Yaxhilan in Mexico had over hundred stingray spines and bone needles and, often when stingray spines are found in tombs, they were placed either in the hand of the deceased or near the pelvic area of the male, possibly due to the bloodletting ritual that can involve piercing of the penis (Fitzsimmons 2009:88).

5.8 Miscellaneous Objects

Some of the grave goods cannot be included in the above mentioned categories and need to be addressed separately. Included here are the different animal teeth found in Burial 7. Seven spindle whorls, the large shells, which has no indication of being worked on, as well as the few small pieces of pyrite and three counters/rounded pebbles.

5.8.1. Dog teeth

A total of 3,290 perforated dog teeth of various sizes (fig. 47h) were found in the northern end of the tomb, shattered around the northern area. Analysis done by Norbert Stanchly indicates that no less than mni (minimal number of individuals) 398 dogs (based on incisors and canines mainly) must have been used to provide the large amount of 3,290 teeth.

Stanchly, who is the primary zooarchaeologist within western Belize, has analyzed the teeth from several other tombs and states that: *“This appears to represent the largest single occurrence of perforated dog teeth found in a Late Classic tomb.”* (Personal communication, 2013).

All of the teeth had been perforated, which indicate they had been part of some large adornment, possibly a necklace. Domestication of dogs was not uncommon, and the presence of dog teeth in tombs in the Maya area is not unfamiliar. The Maya also ate dogs, and some vessels are known to have scenes depicting dog being stewed (Miller and Martin 2004:95).

At Cahal Pech, a Terminal Classic burial (Burial H1) located in Structure H1, in Plaza H, found in 2006, dated to the Terminal Classic period, likewise had dog teeth offerings. The tomb contained 481 teeth, which Stanchly has analyzed to add up to the amount of mni 52 dogs (based on molars and premolar mainly). Apparently the tradition of perforated dog teeth was strong at Cahal Pech, as only few other sites are known to have larger amounts of dog teeth utilized. The site of Actun Polbilche, a cave in Belize, had approximately 500 teeth, which added up to mni 140 dogs (Norbert Stanchly personal communication 2013). Perforated dog teeth, as well as peccary teeth, have been attested Tikal, dating to the transition between the Protoclassic and the Early Classic period, but the actual amount is unknown (Moholy-Nagy 2008: fig. 213).

Another large tooth (fig. 47g), not perforated but carved, was found in Burial 7. Norbert Stanchly has identified it as a large jaguar canine. Although it is fragile and broken into several pieces, it is clear that the carvings resemble the head of some unknown anthropomorphic figure.

Further, the left part of a grey fox mandible (fig. 47i), identified by Norbert Stanchly (personal communication, 2013), and was uncovered within Burial 7 and shows evidence of remnants of cinnabar/hematite.

5.8.2. Spindle whorls

Seven spindle (fig. 37a-b) whorls were uncovered: six of them made of limestone were found underneath vessel #2 and #3, and were the only artifacts found in the southern end, aside from the three vessels. They are all small and weigh a total of 30 g. The seventh spindle whorl, which was found in the center of the tomb, is made of quartzite and weighs 15 g.

Spindle whorls were used to spin cotton and wool, which was necessary to weave cloth, used to make clothes, mats and headdresses among other things. The elite Maya women, who lived within the walls of the royal court, also worked. Among the tasks which have been recognized, one task for which the elite women were responsible was weaving. To weave, the women would use spindle whorls and bone pins along with wool and cotton (Miller and Martin 2004:94). Having found seven spindle whorls in Burial 7, we may postulate that they belonged to the female individual, as females at court have been attested as being responsible for producing cloth.

Some of the elaborate bone pins found in the tomb could very well belong with the spindle whorls. Such bone pins have been found at several sites, inscribed with: upuutz' b'aak = *the weaving bone of...* followed by the name of the royal wife (Miller and Martin 2004:54).

In Burial 7, one inscribed fragment of a bone pin was identified, which could possibly fit the above description. It has been analyzed by Marc Zender, who has transcribed the hieroglyphs (Appendix 3): “**ubaki**, ubaak, ‘his/her bone’. ...*the possessed noun would have been followed by the name of the needle's owner.*”

5.8.3. Spondylus

Several large shells were found within Burial 7. Norbert Stanchly (personal communication, 2013) has identified these shells as being possibly the left and right of a Pacific spondylus and possibly the left and right of an Atlantic spondylus (fig. e-f).

Spondylus (oyster) shells have often been shown in the iconography as being represented near the genitalia of a female. Spondylus has been suggested to be associated with a female's vagina, which is a resemblance made when the shell is opened while still alive and must have been a reference to fertility for the Maya (Miller and Martin 2004:97). In Chapter 6, I will discuss further the association between oyster shells and females.

5.8.4. Pyrite

In Burial 7, five very small thin pieces as well as one small cubed piece of pyrite (fig. 37c) were uncovered. There is not enough to provide a large mirror, which could be actually used by an individual, and neither was something uncovered providing an obvious back for a mirror. But most likely the shiny pyrite found within Burial 7 is present to represent a symbolic mirror, associated with the god K'awiil (see Chapter 6).

The Maya loved mirrors and would wear them around the neck. Mirrors are often found in graves and are made of mosaic pieces of either pyrite, which gives a shiny surface, or from hematite (silver variety), which gives a darker reflection. The pyrite or hematite was then glued onto a back of a certain medium, which has been identified as being made of ceramic, slate and even turtle carapace. (fig. 49). The fact that the Maya used turtle carapace is interesting as the Maya sometimes saw the world as being built up as a large cosmic turtle, out of which the Maize God emerged as being reborn once a year (Miller and Martin 2004:25). This would suggest that the Maya would associate themselves with the Maize God whenever they looked into the mirror.

5.8.5. Cinnabar / Hematite

In Burial 7, several of the artifacts as well as the skull of the second individual have remnants of either hematite or cinnabar. This has occurred at several other elite burials in the Maya lowlands, where there is evidence that the interred were either painted or sprinkled with red color, made of hematite or cinnabar. There are several suggestions as to what the purpose of the color is: to make the deceased appear more lifelike, or to keep away bugs, or the more plausible hypothesis, that the red paint sprinkled over the deceased was to help with resurrection, as red is associated with the rising sun in the east, as well as with childbirth (Fitzsimmons 2009:81-82).

5.9. Summary

The grave goods of Burial 7 have been analyzed and, when possible, compared to similar artifacts found across the Maya Lowlands. Several of the artifacts have indication of possibly being attributed to a certain profession or ritual and I have tried to identify them when there seems to be enough evidence. Several of the artifacts show remnants of hematite or cinnabar, which was likewise associated with the skull of the second individual (male).

The grave goods found within Burial 7 show extensive evidence of interregional exchange, since many of the artifacts were made of materials that could only be obtained from certain places in Mesoamerica. The spondylus (oyster) shells are evidence of that the elite at Cahal Pech had access to not only shells from the Caribbean which is several hundred kilometers away, but also spondylus shells from the Pacific Ocean which is at least 600 kilometers away- Vessel 1 from inside Burial 7, which shows similarities with vessels found in both Kaminaljuyu and Copan, have in both instances been associated with the city of Teotihuacan, which could indicate trade or exchange, or even alliances. Further, several of the artifacts share similarities with artifacts obtained elsewhere, particularly from Tikal, where several of the artifacts show evidence of very close similarity.

Chapter 6: Discussion

6.1. Introduction:

Based on the analysis in Chapter 5, I will discuss the sociopolitical situation addressing the interaction between larger centers in the vicinity of Cahal Pech and the possible impact, as well as the economic situation focusing on trade and exchange which occurred within the Maya area, based on the necessity of the elite to express status through certain exotic (grave) goods. Finally I will also discuss the probability of assigning a profession to one or both of the upper two individuals from Burial 7, based on the grave goods. As already stated, it is somewhat difficult to attribute certain grave good objects to a certain individual, therefore this discussion remains speculative.

6.2. The sociopolitical situation in the (Late) Classic period

The political structure among the Maya has always been competing states and the Maya were never united under one Ajaw. It appears that despite the large number of states, there were dominating states that suppressed smaller states which were turned into vassals, who had to pay tribute to their new suppressor. The states were all entangled in a complex hierarchical relationship dominated mainly by Tikal and Calakmul (fig 2.3.) (McAnany 1993: 213, Sharer and Martin 2005:84).

Fig. 50 is a schema which shows the political landscape in the Classic period, with the names in bold as the dominating cities. The schema demonstrates the interactions between the different ancient cities. Evidence of the interactions is based on inscriptions by the *Ajaws* who would make sure to document such events as their victories, who they had captured, who they had married, as well as painting scenes showing the tribute received. Unfortunately it was not very often that the alliances between states was documented, which gives a biased view on the idea of Classic Mayan interaction (Martin and Grube 2008: 21).

A way for states to stress their importance and influence is through so-called Emblem Glyphs, which are hieroglyphs representing the name of the respective city. Many ancient cities' Emblem Glyphs still need to be discovered, like the Emblem Glyph of Cahal Pech which has not been detected so far. The Emblem Glyphs expressed status among the elite, and was frequently used by the *Ajaw*, to stress his or hers importance (Helmke and Awe 2010: 6).

During the Classic period in the Belize Valley, the hieroglyphs, albeit limited amounts have been recovered, provide enough information to testify to the sociopolitical situation throughout the Valley. Influence by both Naranjo and Caracol have been detected. Naranjo, a

large Mayan center located in Guatemala by the Mopan River, approximately 25 km from Cahal Pechnot, was a rival with Caracol, an equally large Mayan center located within the Mountain Pine Ridge in Belize, south of Cahal Pech. These two major centers strived to gain supremacy in the Belize Valley from AD 626 onwards, with victories occurring on each side for the next fifty years, with the last strike in AD 680, with Caracol defeating the royal line of Naranjo (Martin and Grube 2008:72-74).

After the defeat of the old Naranjo line on August 27th AD 682, a new royal line was started installing a female known as Lady Six Sky, daughter of the *Ajaw* known as Bajlaj Chan K'awiil from Dos Pilas in Guatemala. She became known as a warrior queen, and, in AD 693, she set out declaring war on Bital, a city assumed to be located somewhere between Naranjo and Caracol, and, in AD 695, she declared war on Tikal. Throughout her rule there is evidence of many more wars, prior to her death in AD 741 (Martin and Grube 2008: 76).

After the defeat of Naranjo in AD 680, Caracol seem to have lost power, or may have been suppressed by Tikal and Naranjo, as Calakmul, located in northern Petén, the ally of Caracol, had declined. Not until AD 798 does Caracol recover from what they may have suffered, and the city seemed to once again flourish (Martin and Grube 2008: 95-96).

Tikal was one of the largest Maya cities within the ancient Maya world, located in the center of the Petén and thus in the center of the whole Maya area. In AD 553, the *Ajaw* of Tikal, Wak Chan K'awiil (Double Bird), tried to aid Caracol by helping install a new *Ajaw*. Meantime Naranjo and Calakmul had forced alliances, and, in AD 562, there was war between Calakmul and Tikal, which eventually led Tikal to suffer decline, and it would be another 130 years before a dated monument was erected at Tikal (Martin and Grube 39-40). Tikal shows extensive sign of connection with Teotihuacan (located more than 1000 km away) since the 3rd century until the decline of Teotihuacan around AD 600 and it is possible that the decline of Teotihuacan had an impact on Tikal (Martin and Grube 2008: 29).

Naranjo and Caracol are of significant interest because Cahal Pech is located more or less midway between these two major city states. Not only does the ruler of Naranjo during around AD 700 show signs of connection to Dos Pilas and Tikal, but it is a female who is the *Ajaw* of Naranjo, which indicates a strong presence of females on the scene during this period. Chapter 5 and 6 will discuss the possible relation between Cahal Pech and other ancient cities further.

Moreover, hieroglyphic writing/graffito with reference to Naranjo has been found at Cahal Pech (fig. 51). The hieroglyphs were located above the throne on the northern wall of

Room 2 at Structure A1, dating to c. AD 700-800.¹⁵ The hieroglyphs were written in a graffito style, which has been attested at other ancient cities, such as Tikal and Nakum. Unfortunately many of the hieroglyphs were too eroded to be read, but Christophe Helmke, epigrapher from University of Copenhagen, has identified several of the hieroglyphs. A calendar round date as well as part of a reference to Naranjo has been attested, and Helmke states: “...*the text refers to an individual of Naranjo, though the context and type of reference remains unknown. This reference to Naranjo is all the more intriguing since the ... graffito refers to a royal accession..., presumably that of the local Cahal Pech lord.*” (Helmke and Awe 2010: 9). However, epigrapher Stanley Guenter (personal communication, 2013) is skeptical and does not believe the inscription is either sufficiently preserved or legible enough to read, and does not see any recognizable reference to Naranjo in this inscription.

6.3. Trade, exchange and economy

In Chapter 5, the analysis of the grave goods from Burial 7 at Cahal Pech has given an insight into exotic prestige objects, valued by the elite. This section will focus on objects which could have been produced for exchange and trade. Jade, obsidian, and shell were addressed in Chapter 5, but there are other goods which were traded and exchanged during the Classic period. Most likely, if objects are made of organic material, they will not be found among grave goods, as likelihood of having been preserved is small. By introducing the topic of trade and exchange, we will get a better understanding of the wealth of the interred and of the importance of the extensive trading network occupying the Maya area in the Classic period.

Certain exotic goods became symbols of status within hierarchical cultural societies, like the Maya, and access to exotic goods was necessary. These goods could enhance power and it was necessary for the elite to prevent that the goods were not easily distributed as the object would lose its value (Bradley 1993:132). The most important exotic products necessary for the elite Maya to signal their high status were jade, shell, amber, obsidian, and special feathers, especially from the quetzal bird. The feathers were most likely obtained from Alta Verapaz and Sierra de las Minas in central Guatemala, as well as from Chiapas and Honduras. As the Maya did not domesticate the quetzal bird, which provided the majority of the feathers, it was close to extinction by the arrival of the Spaniards. But goods did not have to be exotic to express status. For example a locally produced polychrome vessel could be as important as a jade figurine, at

¹⁵ Unfortunately the plastered wall upon where the hieroglyphs were placed was sabotaged, and the drawing of the hieroglyphs is based on photographs by Jaime Awe and on field sketches.

least in the Late Classic period when exotic goods were harder to secure (Coe 2005: 23, McAnany 1993: 213).

There has been evidence of long-distance trade as early on as the Middle Preclassic period (BC 1000-300), but not until the Late Preclassic period (BC 300-100) was traded goods, such as shell, jade, and obsidian, considered important among the elite symbolizing status. The necessity of the exotic goods initiated a large network of trade and tribute which linked the Maya with the rest of Mesoamerica (McAnany 1993: 226). Trade network was critical to the growth of Mayan states, although trade network based on an interest in exotic goods, did not necessarily lead to the development of a state. Alliances' between states also provided certain goods. *“One of the more predictable attributes of complex social and political systems, therefore, is the emergence of a sector that is involved with the extractions, transport, and production of these status-enhancing items.”* (McAnany 1993: 229-231).

Rivers played an immense role for the trading network and routes. Two main trading routes (fig. 52) have been identified stretching from the inland of the central Maya lowlands to the Caribbean Sea. Running parallel, the two routes seem to have been competing during the Classic period (AD 250-900). The northern route associated with Tikal and the Hondo and Azul rivers, and the southern route associated with Caracol and the Mopan River. The northern route, however, did not pass through the Belize Valley (Chase and Chase 2012: 10) and other routes have existed between Maya centers where rivers were not present. As addressed in Chapter 5, jade and obsidian has provenance in the Mayan highlands of Guatemala, such goods may very well have found their way to Cahal Pech through the southern route, being transported by the Mopan River.

It is possible that the transition between the Classic and the Postclassic periods created a fundamental restructuring of the Maya economic system which eventually led to a decentralization of control over long distance exchange of goods as, for example, obsidian, cotton, and cacao which were typical trade items (McAnany 1993: 215). This opened up for more coastal exchange and trade, although there is a record that coastal trade had been common throughout the Classic period as well (McAnany 1993: 216). The size of the Mayan cities as well as the location had an influence on the involvement in the trade for example coastal (maritime) trade compared to internal trade (cacao) (fig. 6) (Jones 1989: 120).

6.3.1. Cacao

The Maya lowlands are located on bedrock consistent of sedimentary limestone from the Cenozoic era (BP 65 million - today). Near the rivers in the Maya lowlands, a layer of alluvial soil covers the limestone which provides optimal conditions for the growth of cacao trees (McAnany 1993: 220). The cacao flower and its large fruits grow directly on the trunk or branch and the seeds (beans) of the cacao tree fruit can be eaten fresh, although the Maya preferred to roast the beans and then ground them with chili and mix with water and honey. This beverage likely made the Maya addicted to the stimulating sweet drink, which could cause obesity due to the large number of calories (Miller and Martin 2004:62). Cacao was valuable, not only as it was favored by the elite as a sustenance, but because the cacao bean was also used as medium for payment: *“a single cacao bean could buy a tomato or a tamale, whereas 100 beans, which was the standard wage of a worker could pay for a rabbit or turkey”* (Miller and Martin 2004:62).

Cacao trees (unlike maize, which can grow everywhere, lowland as well as highland) can only grow under the right conditions and thrives in the humid tropical rainforest with lots of moisture, which the central Petén did not have as it has no rivers and the soil is poor. The Maya living in areas like central Petén, where cacao could not grow, were dependent on getting supplies from elsewhere. This was possible through either trade or having control over subjects who would tribute the crop. The area of Dzuhunicob (Northwestern Belize) had extensive fields of alluvial soil, and produced cacao in abundance which made the area target of both trade and suppression (Jones 1989: 102-103). Western Belize was enriched by several rivers, which made the cities located near the banks strategically located for trade.

6.3.2. Salt

Salt was necessary for the ancient Maya just like it is for humans today. Salt is found in meat, but the Maya who were mainly farmers rather than hunters, needed to consume extra salt as lack of consumption of salt could be fatal (Andrews 1983:1, 8-9).

Salt is not difficult to exploit, and the Maya traded salt for more than 2000 years. The greatest salt resource is located along the lagoons on the north coast of Yucatan and archaeologists have identified the areas of salt exploitation as well as production tools, but the containers used for transporting salt have not been identified and the routes for trade remain unknown. By the time of the arrival of the Spanish in Yucatan, the Spaniards witnessed the large salt industry maintained by the population of the peninsula and it was noted that the people of

northern Yucatan exported salt as far away as to Río Pánuco in northern Veracruz (Andrews 1983: 1, 3, Coe 2005:22).

The amount of salt necessary to consume varies from person to person, on the level of physical activity, as well as on the surrounding climate. Based on an average consumption of the Maya living in Tikal during the Late Classic period, calculations have estimated the amount consumed yearly. Based on Tikal having had a population of 45.000 people each consuming 8 grams a day, the demand would add up to more than 131 tons of salt a year. All this needed to be transported from the distant shores, to the inland city. Further, estimated calculations even suggest that around AD 800, the Maya lowlands had a population of approximately five million (possibly more) Using the same calculation, the demand would add up to no less than 14.600 tons of salt a year, and this is only the salt used for consumption as salt was also used as a preservative (Andrews 1983:10). It has been suggested that salt was used as a kind of payment method, not to be confused with money, and was used for just small purchases. This has also been the case with cacao beans and other goods, documented by the Spanish (Andrews 1983:14).

The figures mentioned above are, of course, relative and speculative. The trade of such an amount of salt would occupy a large percentage of the population, but it is more or less impossible to quantify archaeologically, as opposed to jade, obsidian, or shell. Salt containers along with elaborate goods made of organic material have often not survived the tropical environment and, therefore, cannot be incorporated into the analysis as the only evidence of certain goods are through iconography (for example feather-work, bark paper, and cotton textile) (McAnany 1993: 230). Therefore, when looking at the sociopolitical and economic situation it cannot be based solemnly on the present exotic goods, as the evidence of both salt and most organic goods are not existent. However, assuming the hypothesis on salt consumption is correct, the trade network among the ancient Maya must have been substantial.

6.3.3. Teotihuacan

Teotihuacan was a large city in central Mexico, located north-east of modern day capital of Mexico. The city is known for its very large pyramids, and Teotihuacan seems to have had extensive influence throughout Mesoamerica, peaking around AD 450, but eventually declined, presumably around AD 600, and little is known about the lost civilization. They mastered writing in form of hieroglyphs, but these are still in the initial phase of being deciphered. The presence of Teotihuacan culture within the Maya area has been viewed with different levels of skepticism,

and scholars does not seem to agree on just how much influence Teotihuacan may have had on Mayan culture.

Nonetheless, the exchange which occurred between the Maya and Teotihuacan gives an insight to the economic system of the Early Classic period. The main evidence of the presence of Teotihuacan in the Maya area is found in archaeology, iconography and architecture, and sparse evidence through epigraphy, and it is presumed that there must have been economic and political reasons for the interaction, of which there seem to be evidence at Tikal (Sharer and Martin 2005:81-82).

Teotihuacan peaked during the Early Classic period in the Maya lowlands and has been suggested as being found inspirational to the Maya who may deliberately have adopted certain teotihuacanan symbolism like those associated with war to legitimize their military power (Sharer and Martin 2005:88).

The evidence of trade and exchange between Teotihuacan and the Maya is not only seen in influence on architecture (at Teotihuacan a particular structure adorning attribute called talud-tablero was used, which has been imitated few places around the Maya area, for instance at Tikal), trade and exchange is also seen through certain exotic goods, that each area could contribute, based on different resources. The Ajaw increased power through control of trade routes which enhanced the economy as well as giving access to the large variety of exotic goods.

Teotihuacan could provide green obsidian which was found near the areas of Pachuca and Zapagoza both located in the vicinity of Teotihuacan. Teotihuacan had different style and quality of ceramic, for example stuccoed vessels. Teotihuacan had the different talud-tablero facades adorning the structures, as mentioned above. The Maya could in return offer different goods based on their resources, for instance jade and black obsidian found in the Guatemalan highlands, and the alluvial plains of the lowlands provided cacao and rubber (Sharer and Martin 2005:88).

By AD 500, there were several large well established Mayan centers of which none show any sign of influence by Teotihuacan. The main evidence of Teotihuacan influence is seen at Tikal and Uaxactun, as well as Yaxha just south of Tikal. Vivid scenes of correspondence and interaction have been found at these sites, and the decline of Teotihuacan must have affected the economy of the area (Coe 2005:102).

6.3.4. Final remark

As seen in Chapter 5, Cahal Pech has had access to a large variety of exotic goods. My theoretical notion on the excavations of Burial 7 at Cahal Pech is that it not only tells us that the Maya seem to have used Eastern Triadic temples as mortuary temples. the sole function of these mortuary structures were to signal wealth of the kingship possibly to the commoners who would have had access to this part of the city, but more importantly to the gods, as pyramids were reaching in the infinity towards the heavens. The selections of grave goods were to assure resurrection and insure the safe passage of the deceased to the underworld where the deceased would live on along with their possessions. The expense of the grave goods is difficult to measure, not least as it has been argued that the interred of this particular tomb may not be local. This means that the grave goods may not have been obtained by means provided by the population of Cahal Pech as, if it is the case that they are in fact foreigners, these things would have been brought with them, and it would then represent the wealth of another city. Nonetheless, if they were local and had obtained this amount of grave goods, we would be able to conclude differently on the sociopolitical as well as the economic situation of the city as this quantity of grave goods would have been expensive and required certain means. The inhabitants of Cahal Pech would most likely earn their means through crops, like cacao, cloth, or if they obtained the rights to some of the natural resources located nearby, for example, slate from the Maya Mountains located south of the city.

As Cahal Pech is strategically located close to the two large rivers (Macal and Mopan), it is possible to postulate that Cahal Pech required some kind of tax money for people passing their banks. Although numerous ancient cities are located near the river banks, if transporters of goods had to pay tax each time they passed a new city, the amount they should have brought with them when transporting goods must have been large, assuming the goods were used for paying tax. Another possibility is that Cahal Pech gained part of their wealth through tribute and alliances. Being a somewhat medium-sized center, Cahal Pech did not extend itself into a large center like Naranjo, Caracol or Tikal, but through an alliance with one of the large centers, it is possible they earned the means to access through the goods others needed.

6.4. The profession of the male interred in Burial 7

The grave goods analyzed in Chapter 5 indicate that one of the interred was related to the scribal profession. As be discussed below, I believe it to be the interred male. I will discuss different aspects about Mayan scribes, such as identification in the iconography and epigraphy,

the tasks of scribes as well as possible risks associated with the profession. This information serves as basis for understanding the profession of scribes and from where they come, which will help to clarify their roles and help to establish if the male interred may have possessed this profession.

According to Michael Coe, most evidence of the scribal profession available is from the last part of the Classic Period (AD 600-900). The Mayan scribes seem to have had a large variety of responsibilities, such as to read and write, take notes in books/codices, paint and decorate on any possible medium, writeable, paintable as well as engrave-able. Therefore scribes were often referred to with the following titles: scribes, artists, painters, calligraphers and other similar references (Coe 1977: 331, Coe 1997: 90).

In the iconography scribes are usually recognizable through several attributes (See below), although some depictions including scribes can only be identified from accompanying hieroglyphic texts, providing scribal titles. Literacy among the Maya was low, and, unless you belonged to the elite, you would not be trained in literacy and possibly become a scribe. Besides the scribal patrons mentioned in Chapter 2, one of the Hero-twins (Hunahpu) has also been associated as a scribal patronage, and Hunahpu has been identified as bearer of the *its'at* scribal title (see below for more on titles) (Coe 1997: 108). But during the Classic period (AD 250-900) the Maize God was the primary deity who was considered a patron among scribes. Besides the Maize God, a few other gods have been associated with the scribal profession: the gods Itzamná, also known as god D, and Pawahtún, also known as the God N (Reent-Budet 1994: 43). Itzamná is the Supreme Deity and is often depicted as an aged deity, seated on a celestial throne. Itzamná was identified for the first time as a scribe patron from the Terminal Classic site of Xcalumkin in Campeche, Mexico, where he is seen with the title *ah ts'ib* 'he of the writing' and is considered the inventor of reading and writing (Coe 1997: 100).

Despite the apparent high status of scribes, it has been suggested that the elite had an ambivalent relation to scribes, being that their supernatural patrons were monkey gods, which one would find little flattering, considering monkeys were the previous attempt of the gods to create humans. This would indicate monkeys as being a failed version of humankind (Miller and Martin 2004:122).

6.4.3. Titles

Titles for Mayan scribes have been identified; *Ah tz'ib* 'he who writes or paints' was the main title for the scribe/artist/calligrapher. *Itz'aat* is another scribal title meaning wise one,

which could suggest scribes were considered as bureaucrats, accountants, and legal officials. Only one title has been attributed to females, the *na' ts'ib* title meaning Lady scribe (Coe 1997:90, Reents-Budet 1994: 48),

It was possible to have multiple titles, and it has been suggested that the author of the *Popol Vuh* also carried the title *nim chokoj* 'master of ceremonies' as well as the regular title of scribe *Ah tz'ib* (Coe 1997: 94). On the Late Classic stela 12 from Piedras Negras, there is a depiction of an individual with the hieroglyphic phrase on his leg; *ba che-b(u)*; which has been interpreted as First Cheb or First scribe/pen user (Coe 1997:98).

6.4.4. Tombs and monuments

Only a few other tombs have been found in the Maya area with indications that they were related to scribes. At the ancient city of Copán, Honduras, an elite tomb (10-L-26) has revealed spectacular finds: a pot with remnants of pigment/paint and a bowl depicting a man wearing a headdress that show a patron god of scribes holding two brushes in his mouth (Fasquelle et al. 1989:486).

The north-eastern area of the so-called Sepultura group at Copán, group 9N-8, has shown extensive evidence as having been a scribal quarter, also known as the House of Bacabs (bacabs is a Mayan word for officials) (Stuart 1989: 502). The largest building (9N-82) belonged to an elite scribe. Once, ten life-size figures with elaborate headdresses had adorned the facade, now fragmented and eroded (Stuart 1989: 502). Two of these were anthropomorphic figures emerging from what appears to be the jaws of a serpent. One of the figures carries a conch shell inkpot in his left hand (fig. 53). It has been suggested that the serpent could represent an incarnation of the god Itzamná (Coe 1997: 100). In Burial 116 at Temple 1 at Tikal, an awl like artifact shows a similar depiction with the hand of a scribe emerging from the jaws of a serpent (Trik 1963: 16). Excavations in the scribe quarters at Copán have revealed a similar but smaller statue holding a conch shell inkpot in his left hand and in his right hand he is carrying a paint brush and depicted with a hint of a monkey face (Fash 1991a:120).

Apparently the last scribe, who lived in the scribal quarters at Copan, inscribed a long hieroglyphic text in honor of not only the ruler but also honoring his own ancestry. Some of the hieroglyphs have been deciphered as *Ajaw Kin* meaning Lord Day, which has been interpreted as the scribe was a specialist on astronomy and calendars (Coe 1997: 101, Fash 1991a: 136, Fash 1991b: 76).

During the late ninth century, Aguateca, a twin city to Dos Pilas in Guatemala, burned to the ground. This most likely caused the inhabitants to flee and leave behind most of their household goods and other belongings. Excavations have revealed that preservation of the city was astonishing, due to the fire and ash, possibly comparing it to the preservation of Herculaneum and Pompeii, Italy, which was preserved by a layer of ash caused by the eruption of a volcano (Vesuvius). In the center of Aguateca, in a three-roomed house (Structure M8-10), excavations revealed that it must have been the home of a scribe. This is indicated by the fact that several inkpots were found as well as stone pestles and rectangular mortar which was used to grind paint. Equally spectacular was the findings of a human skull with incised hieroglyphs with the name of the ruler and a shell ornament with depictions of the name and title (*its'at*) of a scribe. It is possible that the scribe was an important person, most likely a prince (Coe 1997: 101).

6.4.5. Iconography

None of the vessels found in Burial 7 have depictions of scribes, to support the idea of the male individual being a scribe. Neither was any scribal title obtained, and, although female scribes have been detected, the depictions on the large number of vessels uncovered in the Maya area indicate the profession as being primarily occupied by men. The iconography can further inform us of the attributes associated with male scribes and many vessels depict scenes where scribes are posed as being in the act of writing. Justin and Barbara Kerr, two Mayanists, have created an online database¹⁶ where a large selection of decorated vessels found within the Maya area can be viewed. When searching through the database, at least 55 vessels appear to have scenes of scribes at work, whether they work on masks, codices or something else; some of them are depicting scribes who sit with their inkpots (e.g. K2994, K4010, K4550, K5012, K5352, K9162). Several scribes are depicted with their codices, either writing in them or having the codex tucked under their arm (e.g. K760, K1565, K5184, K5824, K7715). K1185 depicts the Maize god as a scribe. There is also a large number of vessels with scribes undertaking artistic work (e.g. K3639, K5348, K5373, K5597, K7447, K8457) and a few depicting scribes as monkeys (e.g. K1225, K3413, K5744).

One of the vessels from Kerr's database has been analyzed by independent scholar Erik Boot: Kerr No. 0717, (fig. 54). Along the upper rim of the vessel, the Standard Dedicatory Formula (SDF)/Primary Standard Sequence (PSS) is found. SDF/PSS is a standard text which

¹⁶ <http://research.mayavase.com/kerrmaya.html>

often functions as a name tag, providing either the name of the owner of the vessel or the name of the scribe/artists who decorated the vessel (Kettunen & Helmke 2010: 28).

The vessel displays a scribe located upon a platform. Scribes are often identified by the fact that they are wearing elaborate headdresses and carry a bundle of quills or feather pens. The scribe on Kerr No. 0717 has been illustrated with a red body, while he on his face has a row of four black dots. He has marks on his left arm and leg which have been recognized as godly markings that identifies the scribe as being of supernatural nature and is also wearing a jeweled skirt that connects the scribe to the Maize God, who is associated with jade and shells jewels, as mentioned in Chapter 2 (Boot 2006: 4). The red cinnabar/hematite pigment found in Burial 7, can possibly be associated with the red color with which the scribe is depicted in Kerr No. 0717. Although scribes are also depicted without the red color, red pigment (cinnabar/hematite) occurs in elite and royal tombs and is not associated with scribes.

At the lower part of vessel K0717, an anthropomorphic figure is shown seated on a floor. He is wearing a vulture mask and also wearing the headdress which identifies him as a scribe. The vulture mask is probably associating the scribe with the god Itzamná. There are different headdresses which are associated with scribes. There are two most common headdresses. the first is a simple head-cloth tied with a large knot, where bundles of pens could be tucked in under. The large knot has been identified with the hieroglyph logogram for *hun* which has been deciphered as ‘book’ (Coe 1997: 92). The other headdress is associated with Pawahtún; the netted headdress (1997: 104). In his left hand the anthropomorphic figure is holding a pen and is leaning slightly forward towards an inkpot which is located in front of him (Boot 2006: 4).

Iconography also introduces certain risks associated the scribal profession. Quite a few images depict what is presumed to be scenes of high ranking scribes and artists having been taken as captives, and possibly scribes were sought out as targets by the enemy (Coe 1997: 97).

Scribes have been depicted standing or kneeling with folded arms across the chest, which is part of a capitulation and humiliation ritual, followed by disfigurement, and finally being sacrificed (Johnston 2001¹⁷). Scribes were captured, tortured, and sacrificed by the enemy as a way to hurt the opponent. It is believed scribes were often related to the *Ajaw*, possibly a younger son of the *Ajaw*, who entered the profession as a scribe (Williams L. Fash 1991a) Spanish records make notions of the second son of *rulers* often becoming priests (probably scribes were mistaken as priests by the Spaniards) (Fasquelle et al. 1989). Should it be the case that the scribe was, in fact related to the *Ajaw* of an opponent, most likely the conqueror could

¹⁷ As I accessed the article online, it was not possible to include page numbers.

not rely on the captivated scribe to record loyal documents, and the scribe most likely would face death warrant (Johnston 2001).

6.5. The profession of the female interred in Burial 7

As seen in Chapter 5, several of the grave goods found in Burial 7 seem to be associated with the female individual, particularly the large oyster shells (spondylus shells), the spindle whorls and some of the jade objects. Oyster shells and jade are characteristic Maize God regalia, especially when worn by women (Miller and Martin 2004:119). The roles changed significantly as women gained more influence during the Late Classic period, and as will be discussed below, the interred female of Burial 7 seems to have played a main role in performing religious rituals.

As mentioned in Chapter 5, oyster shells are considered to be associated with the female genitalia. On a stela, which will be analyzed below, there is a depiction of an elite female who is wearing an oyster shell over the pelvic area and it is very likely that the oyster shells found in Burial 7 could be associated with the female individual. Although the oyster shells were found around the (northern) center of the crypt and as the human remains seem to be more or less undisturbed, the spondylus found in Burial 7 do not appear to have been placed near the female's genitalia, but near her torso and head. (fig. 55-57).

The spindle whorls addressed in Chapter 5 are believed to be associated with weaving, which was not considered a profession but an occupation for elite women, along with other roles that the Maya attributed to females, such as cooking, and being a mother as well as a nurse. The task of weaving was important as it contributed to the economy as cloth and clothing was used for gifts, tribute, and trade (Miller and Martin 2004: 94).

The god K'awiil, also known as God K, is the god of lightening. The Maya believed that where the a lightning bolt had once split open a mountain, was the spot where maize originated, thus K'awiil and the Maize God are often associated (Miller and Martin 2004: 102). K'awiil is often depicted emerging from a serpent, with a mirror on his forehead, with a torch or a cigar emerging from the mirror (Miller and Martin 2004: 293). Women are often depicted associated with serpents in the iconography and, thus, associated with the god K'awiil. For instance vessel K5164¹⁸ depicts a woman intertwined with a serpent, which emerges from the foot of the god K'awiil (fig. 58). K'awiil associated with a female is also depicted on a stela, known as the San Francisco stela, of unknown provenance (fig. 59), which shows a female wearing a net overskirt

¹⁸ referring to the online database, mayavase.com

and shark-and-shell belt ornament as well as an oversized femur hanging across her chest, from which a serpent emerges through the hollow core of the bone. Out of the mouth of the serpent emerges the god K'awiil depicted with some of his lightening attributes such as a flaming torch. The belt with which the female is depicted associates her with the Maize God, and symbolizes her as growing maize from where the lightning struck her. Despite the stela being of unknown origin, the name of the female, identified as an *Ajaw*, has been deciphered as *Ix Mutal Ahaw*, which has been suggested as a royal line originating from either Tikal or Dos Pilas (Miller and Martin 2004: 102).

Noteworthy is it that the rings found in Burial 7 provided the name *K'awiil Chan K'inich* analyzed and identified by Marc Zender, who states that (see appendix XX for full report on the glyphs): *"The name is a compound deity name common in Mayan inscriptions, meaning something like 'the Sun God (K'inich) is like Lightning (K'awiil) in the Sky (Chan)'. And the name is already attested as that of a mid-8th century king of Dos Pilas, Guatemala, though here it must be that of a namesake."* Names containing references to K'awil are common and do not testify to a female relation. Although the namesake from Dos Pilas is of later origin than the rings found in Burial 7 at Cahal Pech, it is possible that the inscribed bone rings could address a person with connection to Dos Pilas, especially if there is a connection between the interred and Naranjo, as Naranjo, during this time period, shows sign of a relationship to Dos Pilas. Should there be a connection, it is possible the *Ajaw* of Dos Pilas arrived after the owner of this ring. Elaboration on this is all speculation and unfortunately not likely to ever be solved, although the pending strontium analysis of the interred in Burial 7 may shed light on the matter.

Furthermore, although impossible to say which of the grave goods made of jade should be associated with the female, I believe it is possible that the jade bar pectorals, besides from being a symbol of status, could be associated with the long bones as depicted on the San Francisco stela, from where the serpent as well as K'awiil emerges. As green is associated with maize, and the agent of the ritual seems to be representing a coalition between lightening and maize, I find it likely that the purpose of the bar pectorals is to represent a ritual where K'awiil is summoned and the agent performing the ritual is representing the Maize God.

The fact that K'awiil is often depicted with a mirror on his forehead could indicate that the few pieces of pyrite found in Burial 7 could be associated with K'awiil and the rituals concerning him, especially as not enough pieces were found to provide an actual usable mirror.

The profession of the interred upper female is uncertain. But her role appears to be that of an important elite woman whose profession may not be anything different from the tasks of other

elite women: to perform certain daily chores as well as being involved with different rituals. But as discussed in Chapter 2, it is often the queen (female *Ajaw*) who is associated with the rituals, and it is possible this female was the queen of Cahal Pech.

As mentioned above, the male who is assumed to be a scribe, may have been the author of the writing at Structure A1 at Cahal Pech, and there is a possible connection between the interred and Naranjo. Although many of the artifacts from Burial 7 indicate a connection to Tikal, the goods could have been imported from anywhere, and it is possible Tikal had likewise imported goods from the same source. Should the interpretation of the hieroglyphs at Structure A1, refer to Naranjo, which is uncertain, I will not speculate that the interred is the queen of Naranjo, Lady Six Sky, just because her tomb still remains to be found. But based on the dating of the tomb (c. AD 700), the reference to Naranjo in Plaza A (restricted elite area), above the throne, on Structure A1 at Cahal Pech, as well as at least one of the interred in Burial 7 seems to have been literate (little evidence of writing/literacy in general at Cahal Pech, as opposed to at Naranjo), I strongly believe there could be a connection to the reign of Lady Six Sky, possibly the interred could be a daughter or a sister, as well as a connection between the scribe in Burial 7 and the hieroglyphs on Structure A1.

6.6. Summary

This chapter has discussed several aspects of the compilation of grave goods found within Burial 7. The sociopolitical as well as the economic situation, stating the necessity for trade to obtain such goods has been addressed. The sociopolitical situation is stressed through the possibility of the interred being foreigners, and, should such a relationship be true, the economic situation would likewise change. Foreign relationships have been argued, based on the orientation of the interred, but also through a possible assumed literacy which has rarely been detected at Cahal Pech, prior to this period, and the production of goods used for trade and exchange at Cahal Pech have been argued for.

The professions of the two interred have been discussed and, based on the grave goods analyzed in Chapter 5, examples have been given on possible usage and distribution. Based on this the female has been suggested to be a possible queen of Cahal Pech who was involved with religious rituals associated with the gods. The male interred is assumed to be a scribe and the possible author of the hieroglyphic inscription once found on Structure A1.

Chapter 7: Conclusion

The archaeological investigations at Structure B1 have helped enhance our knowledge of the Maya living in the lowlands during the Late Classic period (AD 600-800). The grave goods, particularly from Burial 7, have revealed 1) extensive evidence of trade and exchange, 2) introduced new possible relations between Mayan centers, indicating a new the sociopolitical structure, and 3) provided insight, beyond the assumed *Ajaw* status, into the possible professions of the interred and their possible roles in life. This knowledge could not have been obtained had the objects not been found within this ideal context. Based on my theoretical approach, I have sought to include various disciplines to get a better understanding of the archaeological evidence: besides from references to books, I have included answers from a questionnaire and as well as personal communication with several specialists to provide a more detailed analysis in this thesis.

The archaeological investigations of Structure B1, in particular Burial 7, have provided a large number of the grave goods with exotic origin, which all have provenance either in the distant Maya highlands, the Caribbean Sea and even the Pacific Ocean. During the Late Classic period, exchange of goods was possible through a series of trade routes, linking not only the Maya lowlands, but all of Mesoamerica. The importance of trade has been stressed, as it was necessary for the *Ajaw* and the elite to signal their status through exclusive exotic goods.

Many of the grave goods from Burial 7 show resemblance to artifacts found at other Mayan centers, which suggests the probability of relations between sites, or a general tendency among the Maya for stereotyped goods. The latter alternative is likely to be assumed as Maya iconography generally appears to be stereotyped. General funerary traditions also seem to have occurred within certain areas identified through such rituals as a layer of chipped chert deposited above Late Classic burials, detected both at Tikal and at Cahal Pech. The probability of a relationship between Tikal and the interred in Burial 7 possibly existed, as evidence like such artifacts as the jade figurines and hand-shaped pins show striking similarities. But it is possible that the goods were created by the same vendor or that the similarities are a coincidence.

Although the many similarities between the artifacts found at Cahal Pech and at Tikal could indicate a relationship between the two centers. Tikal is known to have had relations with Teotihuacan, and it is possible that the grave goods at Burial 7 at Cahal Pech could contain a Teotihuacan style vessel, based on the interactions between Tikal and Teotihuacan and not between Cahal Pech and Teotihuacan.

Speculatively, it is possible that vessel 1 belonged to the third individual of Burial 7; this would instead indicate that Cahal Pech likely interacted with Teotihuacan. Among the grave goods found in Burial 7, a few are dated to the Early Classic period; this could indicate a possibility that the primary burial (the third individual, from which only the feet bones remained) was associated with this time period. This is not unlikely as both Burial 11 and Burial 12, which are both located nearby on the western staircase, are dated to the Early Classic period. During the Early Classic period, Teotihuacan was still a large powerful city, whose influence has been detected throughout the Maya area. Thus vessel 1 could belong to any of the interred.

It seems more reasonable to assume vessel 4 belonged with the third individual, as this type of decorated vessel usually has been associated with Early Classic burials, for instance Burial 12. It is difficult to definitely know the provenience of most of the goods but the extensiveness of the wealth associating the grave goods from Burial 7 do not deny the possibility that the two upper individuals had access to vessels dated to the Early Classic period. This possibility could be argued as Burial 2, the other Late Classic burial from Structure B1, which shows no indication of re-entry, contained an Early Classic vessel, almost identical to vessel 7 from Burial 7.

Prior to the Late Classic period, the number of grave goods found in interments within Structure B1 was limited to a few artifacts; such as a few vessels, a few pieces of jade, and possibly an obsidian blade. A few interments had unique exotic objects (such as the elaborately engraved shell from Burial 12 or stingray spines). The large number of grave goods from Burial 7 testifies to new wealth within the elite at Cahal Pech, which has not been previously observed.

The grave goods of Burial 7 indicate that at least one of the interred was familiar with literacy as well as the scribal profession. The two bone rings with engraved hieroglyphs would testify to the probability of literacy among the interred. The conch inkpot with remnants of paint as well as several pens and a spatula are tools used by scribes and at Aguateca and Copan the inkpots and paint as well as inscribed names and titles clarifying the presence of male scribes. It seems most likely that it was the male who held the profession, although females have been attested to hold the profession as well. The iconography indicates that the profession was held by men and that scribes are easily recognized through several attributes, among others, the presence of inkpots and pens. There is no doubt the profession of scribes was highly valued which is particularly seen in Copan, where the scribes had their own quarters and elaborate statues. Although the individual could have been trained in the scribal art and was literate, it is possible that the

interred could also have possessed the status of *Ajaw*, as being interred into Structure B1 signals high status.

Moreover does several of the grave goods show evidences of hematite/cinnabar pigment, which were detected on the skull of the second individual, the male. As mentioned in Chapter 5, the red pigment could have been sprinkled over the deceased as part of a ritual. When the tomb was reopened, it is not unlikely to believe that the artifacts showing traces of red pigment were in the tomb with him prior to the interment of the female. One of the artifacts is that of a small peculiar hand-shaped spatula, which has remnants of red pigment on it, and, due to the above mentioned, likely to have belonged to the male. This spatula could have been used for paint, possibly for mixing or applying paint.

Burial 7 contained a large number of jade artifacts. As jade is known to symbolize the Maize God, it not unlikely several of the jade objects belonged to the male, as the Maize God during this period was the patron of scribes.

The profession of the female has likewise been accounted for, based on my interpretation of the grave goods. I believe she was associated with religious rituals, especially related to the Maize God and the god K'awiil. It has been argued that in the Late Classic period, females involved with religious rituals were often queens, and the female of Burial 7 would appear to be royal. I have also discussed the possibility of the female being related to the famous Lady Six Sky from Naranjo (see below). Although the relationship to Naranjo, based on the hieroglyphic inscriptions, seems to be uncertain, it is not unreasonable to assume a foreign relationship to the site as it is located just up the Mopan River, close to Cahal Pech.

The interments of Structure B1 sheds light on the sociopolitical situation, as there are several indications of foreign inhabitants living at Cahal Pech during the Late Classic period. This is indicated as the interred of Burial 7 were oriented with the head towards north as opposed to the head to the south, which was the tendency at Structure B1 prior to Burial 7 (with exception of Burial 2 also dated to the Late Classic period with orientation unfortunately unknown). But as there seem to be evidence of a relation between Burial 2 and Burial 7, it is possible that the interred of Burial 2 also had the head oriented towards north. Both burials contained hieroglyphic inscriptions (bone rings and turtle bone respectively) as well as almost identical vessels (the tall fluted vases and basal flange vessels with same decorative pattern on the exterior) and a few similar jade artifacts. It would be ideal to establish the connection between the two burials as this information could confirm of a possible period of a foreign rule and give

us a better understanding of the sociopolitical situation of Cahal Pech. The pending strontium analysis results will be able to determine the origin of the interred.

The evidence of hieroglyphic writing prior to the Late Classic period at Cahal Pech is more or less non-existent, compared to the Late Classic period, signifying a change at Cahal Pech. The inscribed bone rings and turtle bone found in Burial 7 do not alone testify to literacy as they could have been imported or exchanged. But the hieroglyphic writing on the northern wall of Structure A1, dated to the Late Classic period, located within restricted elite area, testifies to the presence of a scribe. Furthermore, it is possible the hieroglyphic text refers to Naranjo, a large Maya center known for numerous inscriptions. This could confirm a possible relationship, as speculated above, and I am convinced there is enough evidence to conclude foreign influence at Cahal Pech during this period, possibly from Naranjo or Tikal, and that among the foreigners, at least one was literate, who was the author of the inscription on Structure A1, and possibly of the inscribed bone artifacts, and that he may be the scribe interred in Burial 7.

The social situation of the country of Belize today is based on a diverse population and is a country without many means and is thus often dependent on foreign funding when preserving archaeological sites. The large interest showed in Mayan culture and heritage within the last twenty to thirty years by people from all over the world helps bring awareness to Maya culture. The large number of archaeologist (foreign and local alike) who each year expose more and more of the ancient culture helps our understanding who were the ancient Maya.

The responses from the five people interviewed, show that they all share the opinion that there seem to be some awareness among the population, who have realized there are certain benefits associated with tourism, but that there still is a long way to go. Among their replies, several solutions were proposed to spread more awareness, hopefully leading to a genuine interest among the population to preserve the Mayan culture: A Mayan national day with celebrations, making the population aware of the Maya, and with possible activities introducing Mayan culture. Another suggestion was local TV programs addressing the topic with documentaries on Mayan culture.

The great number of artifacts uncovered will hopefully lead to larger museums and modernized visitor centers, which will attract people to visit the sites. I believe preserved and restored archaeological sites, easily accessible, with an accommodating visitor center providing an insight to the history of the ancient city, will attract as well as educate visitors. Cahal Pech is approaching that goal, as the site has gone through extensive renovation the last few years, and

the amount of artifacts uncovered at the site are impressive and will attract visitors once they are exhibited in a museum.

Several of the grave goods from Burial 7 (the shell inkpot, vessel 1, the intact bone ring with engraved hieroglyphs, the jade figurine and the best preserved of the styluses), along with other precious finds from all over Belize, have since the middle of 2013 been exhibited in the United States¹⁹. Hopefully these exhibits will this help promote the ancient Maya as well as Belize and maybe even Cahal Pech and, hopefully, by the time these artifacts return, they will be ready for exhibition in Belize.

¹⁹ http://www.twincities.com/ci_23506976/ancient-cities-gaudy-pyramids-exhibit-brings-maya-minnesota

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Appendix 1: Figures

All photographs are by C. Santasilia, unless otherwise stated

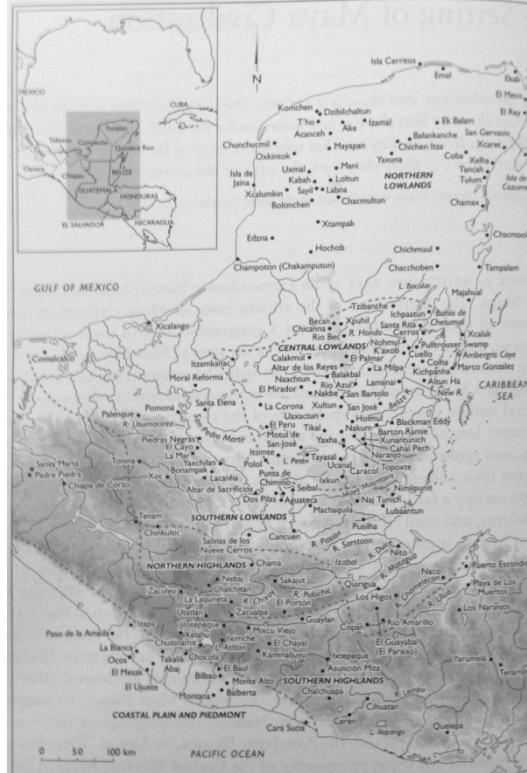


Figure 1 - Map of the Maya area (Sharer 2006: 24)

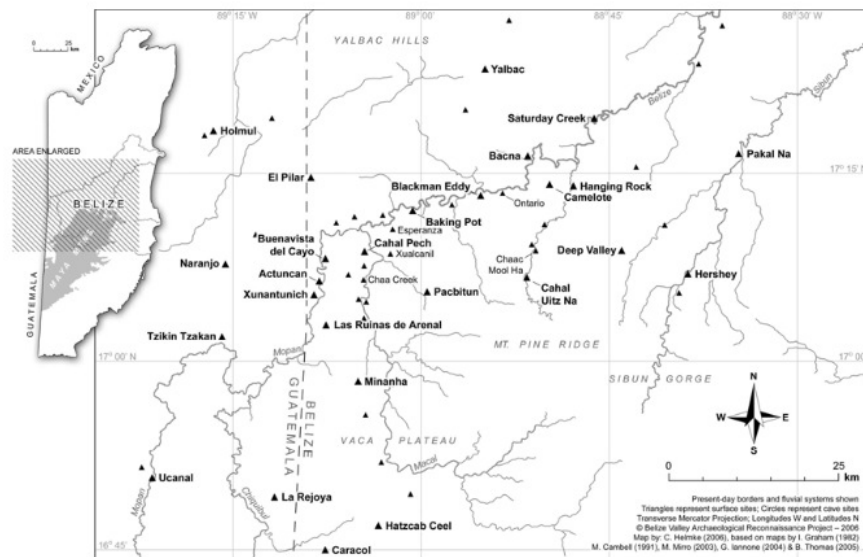


Figure 2 - Map of the geographic distribution of the Maya centers in the Belize Valley (Helmke and Awe 2010: 19)



Figure 3 – profile of Structure B1 indicating the location of the burials

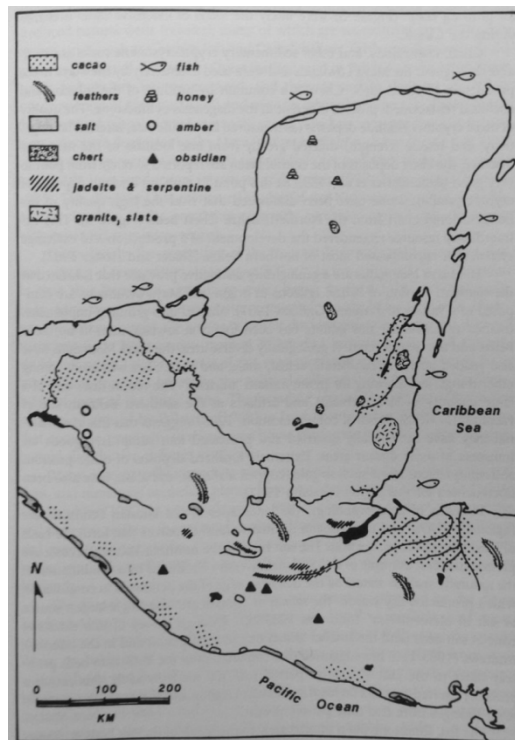


Figure 6 - Map, indicating resource origin (McAnany 1993:221).

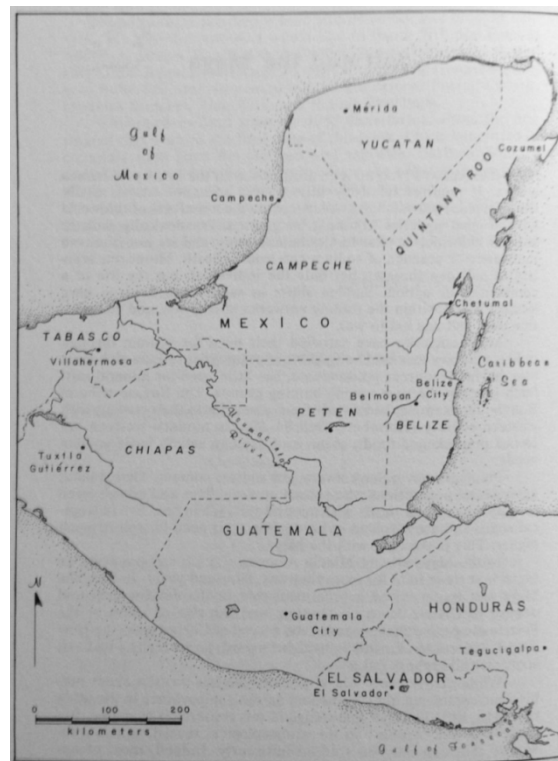


Figure 7 - Map of the geographic distribution of the Maya regions (Andrews 1983: 2)



Figure 8 - Court scene with the *Ajaw* seated on a throne before entertainers (Miller and Martin 2004: 43 vessel of unknown provenience dated c. AD 600-800)



Figure 9 – Court scene, presenting tribute, with scribe accounting (Miller and Martin 2004: 35)



Figure 10 – God L (Miller and Martin 2004: 53)



Figure 11 – Maize God and a dwarf humiliating God L (Miller and Martin 2004: 60)

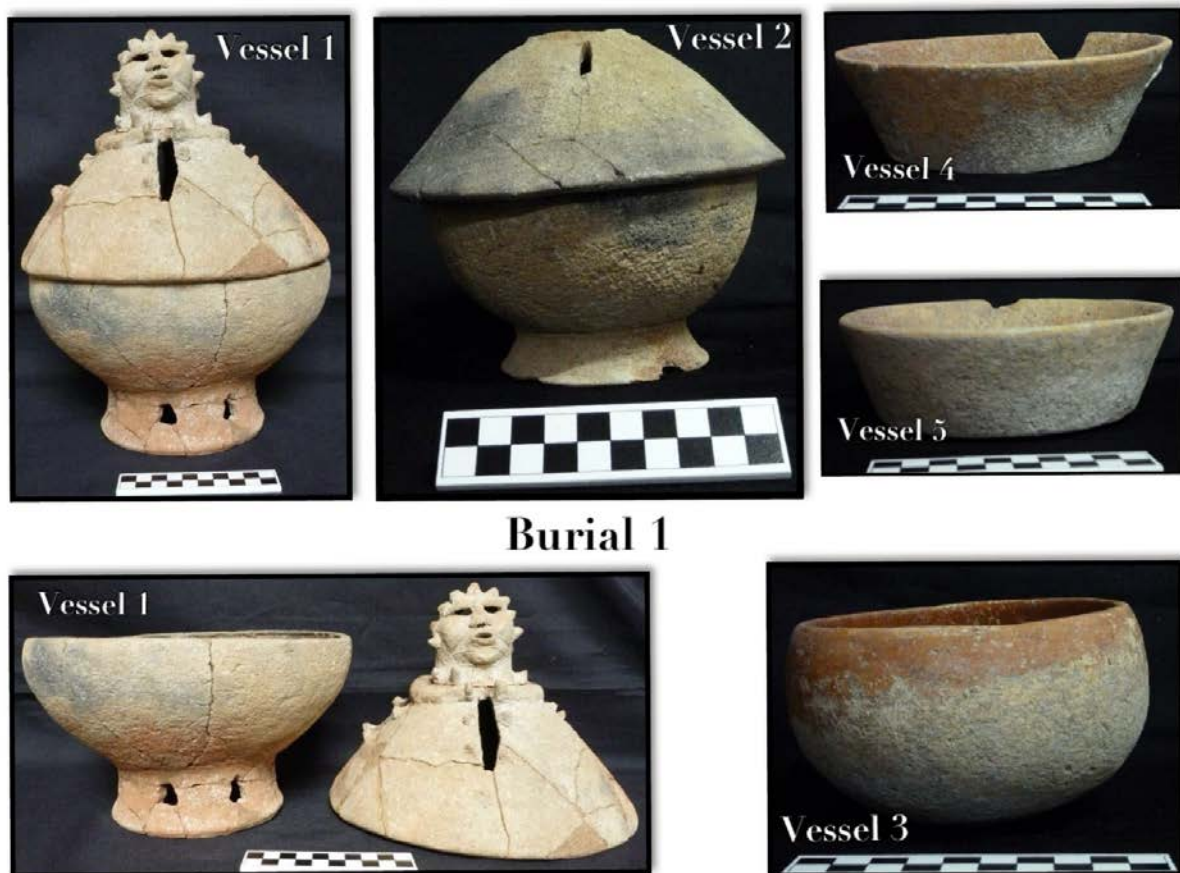


Figure 12 – The five vessels from Burial 1



Figure 13 – The eight vessels from Burial 2



Figure 14 – Grave goods from Burial 2

Schmidt 1969



CHP-B1-BU1

1. Mosaic mask
2. Miniature mosaic mask
3. Jade earplug, left
4. Jade earplug, right
5. Red paint
6. Obsidian blade
7. 3 obsidian blades
8. ???
9. Jade pendant
10. Jade pendant
11. Jade pendant
12. Tubular jade bead
13. Pottery vessel (black fluted)
14. Pottery vessel, red tripod
15. Pottery vessel, polychrome
16. Pottery vessel, polychrome
17. Pottery vessel, polychrome
18. Pottery vessel, polychrome
19. Pottery vessel, polychrome
20. 2 jade beads
21. 2 jade beads
22. 1 pearl and 1 shell
23. 2 bone earplug elements
24. 2 jade earplug elements
25. Perforated animal tooth
26. Bone disk
27. Cowrie shell
28. Animal tooth necklace (?)
29. Turtle carapace
30. Shell bead (stray find)

By: P. Schmidt, C. Santasilia, J. Awe

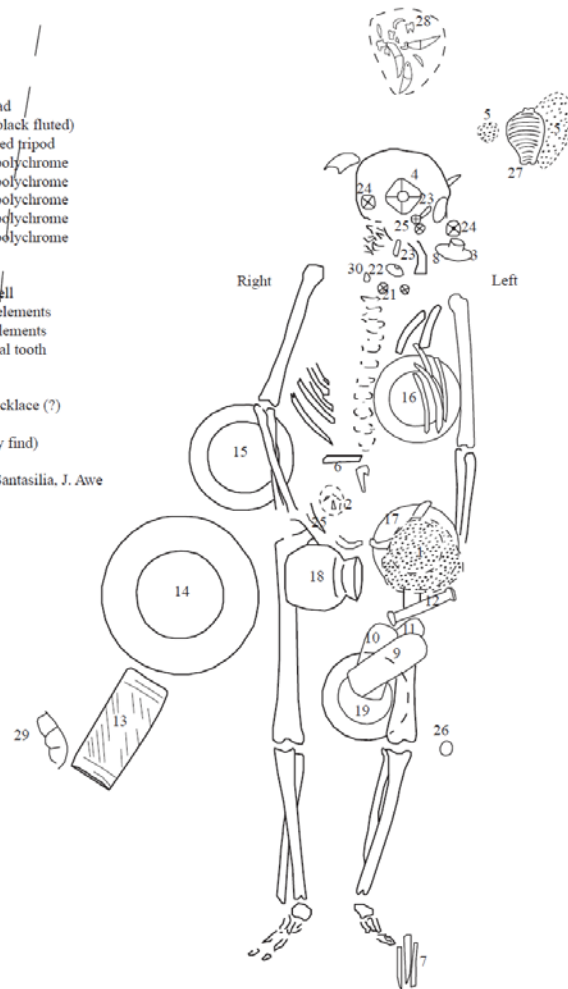


Figure 15 – plan view of Burial 2 (by P. Schmidt, C. Santasilia and J. Awe)



Burial 8



Figure 16 – The grave goods from Burial 8



Burial 10



Figure 17 – The grave goods from Burial 10



Figure 18 – The grave goods from Burial 11

Burial 12



Figure 19 –The grave goods from Burial 12



Figure 20 –The grave goods from Burial 12

The Petén		Belize	
MAXACTUN	TIME	BARTON RAMIE	
(ABANDONMENT ?-)	POSTCLASSIC LATE MAYA DATES	(ABANDONMENT ?-)	
TEPEU 3	1000-900 (A.D. 800)	NEW TOWN	
TEPEU 2	900-800 (A.D. 800)	SPANISH LOOKOUT	
TEPEU 1	800-700 (A.D. 800)	TIGER RUN	
TZAKOL 3	700-600 (A.D. 800)	HERMITAGE	
TZAKOL 2	600-500 (A.D. 800)		
TZAKOL 1	500-400 (A.D. 800)		
MATZANEL	CLASSIC LATE 8-10-0-0 (A.D. 800)	FLORAL PARK	HERMITAGE
	AD B.C.		MOUNT HOPE
	PRECLASSIC LATE	MOUNT HOPE	
CHICANEL		BARTON CREEK	
		JENNEY CREEK	
MAMOM	MIDDLE	JENNEY CREEK (EARLY ASPECT)	

Figure 21 - List of the phases referred to for ceramic analysis (Willey et al. 1965:26)

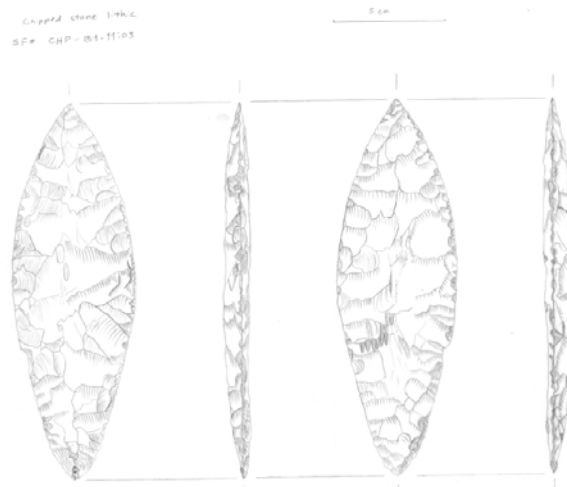


Figure 22 – Cache 1, chert biface (by T. Bower)



Figure 23 – Cache 1, chert biface

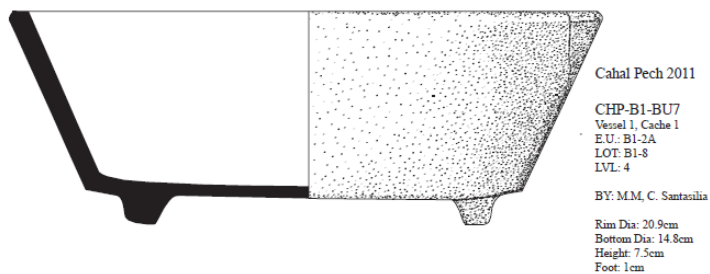


Figure 24 – Cache 2, vessel 1 (by M. Oropeza and C. Santasilia)

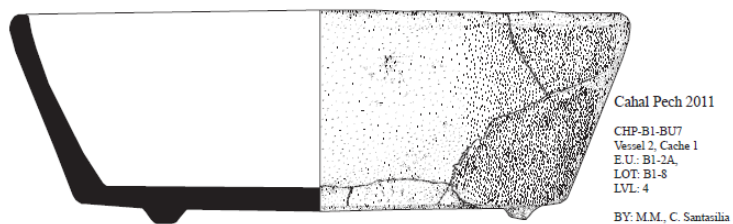


Figure 25 – Cache 2, vessel 2 (by M. Oropeza and C. Santasilia)



Figure 26 – Cache 2, vessels 1 and 2



Figure 27 – Vessel 5, cache 3, (representing five similar vessels) (by B. Bol and C. Santasilia)

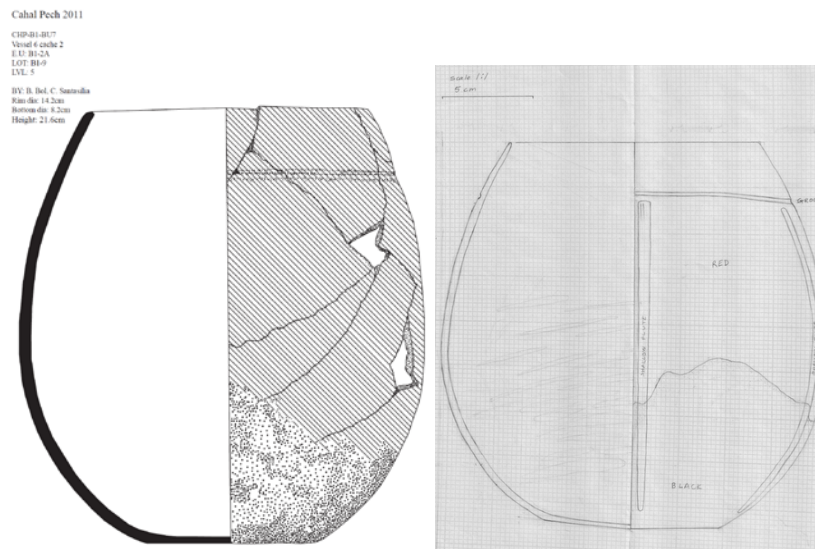


Figure 28 – Vessel 6, cache 3 (by, B. Bol, T. Bower and C. Santasilia)

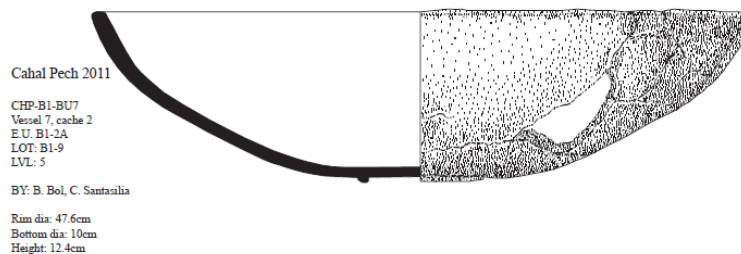


Figure 29 – Vessel 7, cache 3 (by B. Bol and C. Santasilia)



Figure 30 – The seven vessels of cache 3



BURIAL 7



Figure 31 – The eight vessels of Burial 7

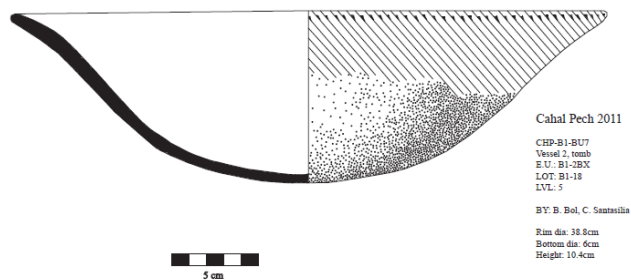


Figure 32 – Vessel 2 from Burial 7 (by B. Bol and C. Santasilia)

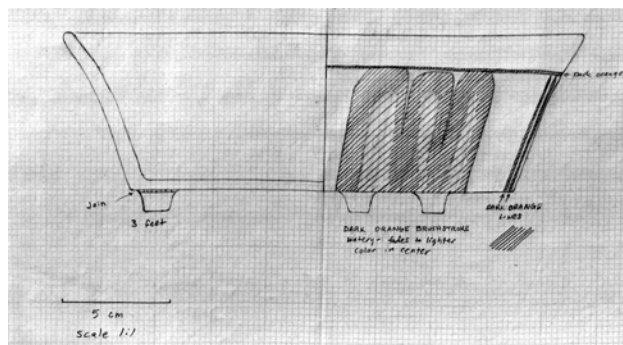


Figure 33 – Vessel 3 from Burial 7 (by T. Bower)

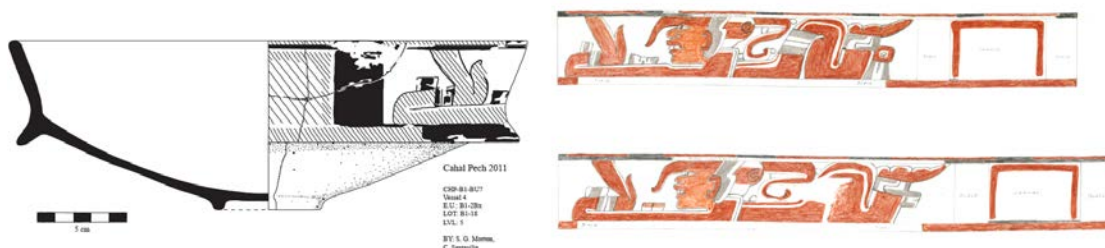


Figure 34 – Vessel 4 from Burial 4 (by S. Morton and T. Bower)



Figure 35 – Vessel 5 from Burial 7 (by B. Bol and C. Santasilia)



Figure 36 – Vessel 6 from Burial 7 (by M. Oropeza and C. Santasilia)



Figure 37 – Shell, spindle whorls, obsidian, ceramic ornaments, pyrite and pebbles from Burial 7



Figure 38 – Jade from Burial 7



Figure 39 – Jade figurine from Tikal (Moholy-Nagy 2008: figure 108b)

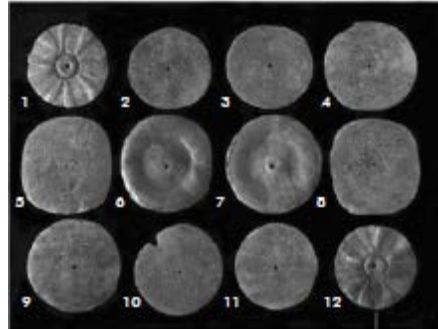


Figure 40 – Jade flares from Tikal (Moholy-Nagy 2008: figure 115e:)



Figure 41 - Lintel 24 from Yaxchilan, Mexico²⁰

²⁰ <https://www.peabody.harvard.edu/CMHI/detail.php?num=24&site=Yaxchilan&type=Lintel>



Figure 42 – Shell from Burial 7



Figure 43 - Ceramic inkpot from Tikal burial 116 (Reents-Budet 1994: 43)



Figure 44 – Three small Late Classic ornaments (Moholy-Nagy 2008: fig. 145h, 145m, 145o).

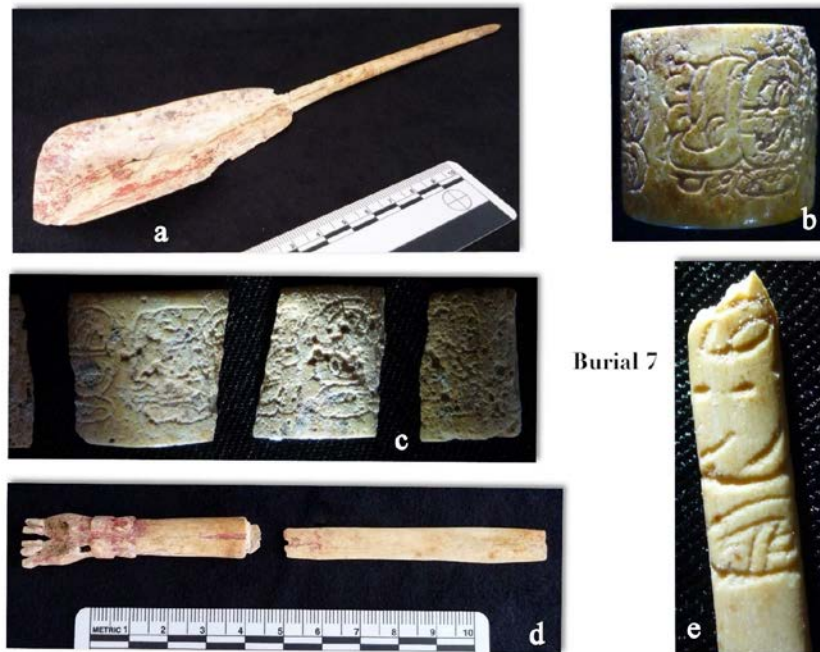


Figure 45 – Bone artifacts from Burial 7



yo-?-bi K'AWIIL-la-CHAN-na K'IN-ni-chi K'AN-na-?-wa-BAHLAM
y-o...-ib K'awiil Chan K'inich, K'an ... Bahlam
The ring(?) of K'awiil Chan K'inich, K'an ? Bahlam



yo-?-bi K'AWIIL-la-CHAN-na K'INICH K'AN-na-?-wa-BAHLAM
y-o...-ib K'awiil Chan K'inich, K'an ... Bahlam
The ring(?) of K'awiil Chan K'inich, K'an ? Bahlam

Figure 46 – hieroglyphic inscription on rings (courtesy by M. Zender)

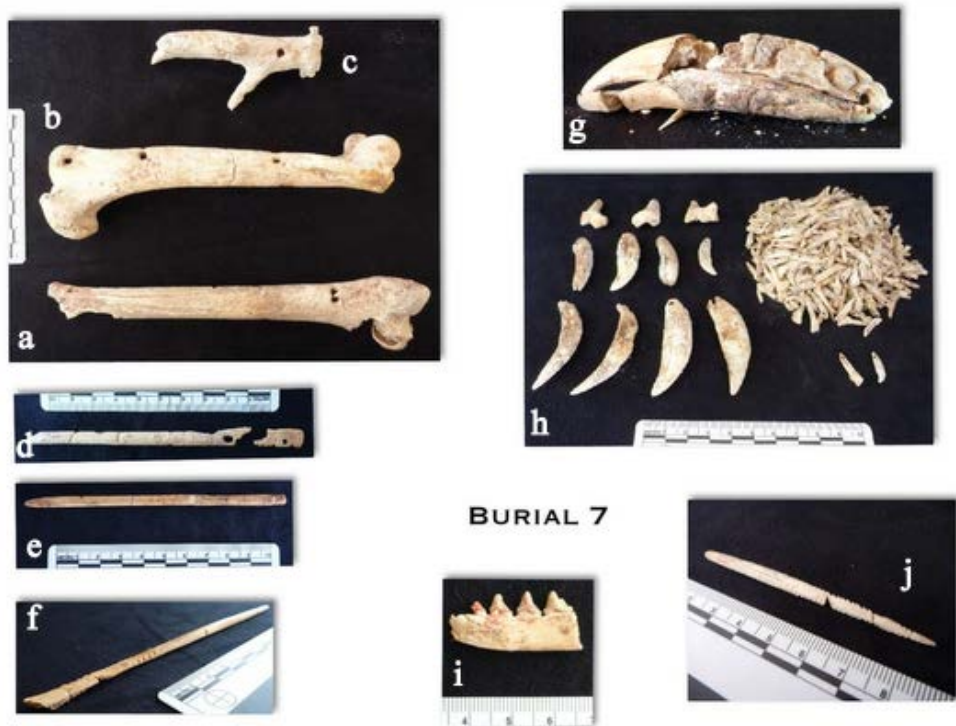


Figure 47 – Bone artifacts and faunal remains from Burial 7

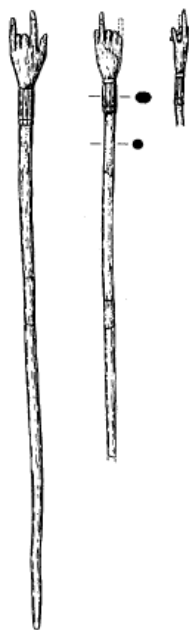


Figure 48 – Pin shaped like a hand (Moholy-Nagy 2008: figure 2006d, from Burial 116, Tikal)



Figure 49 – The Maize God emerging from a turtle carapace (Miller and Martin 2004: 56)

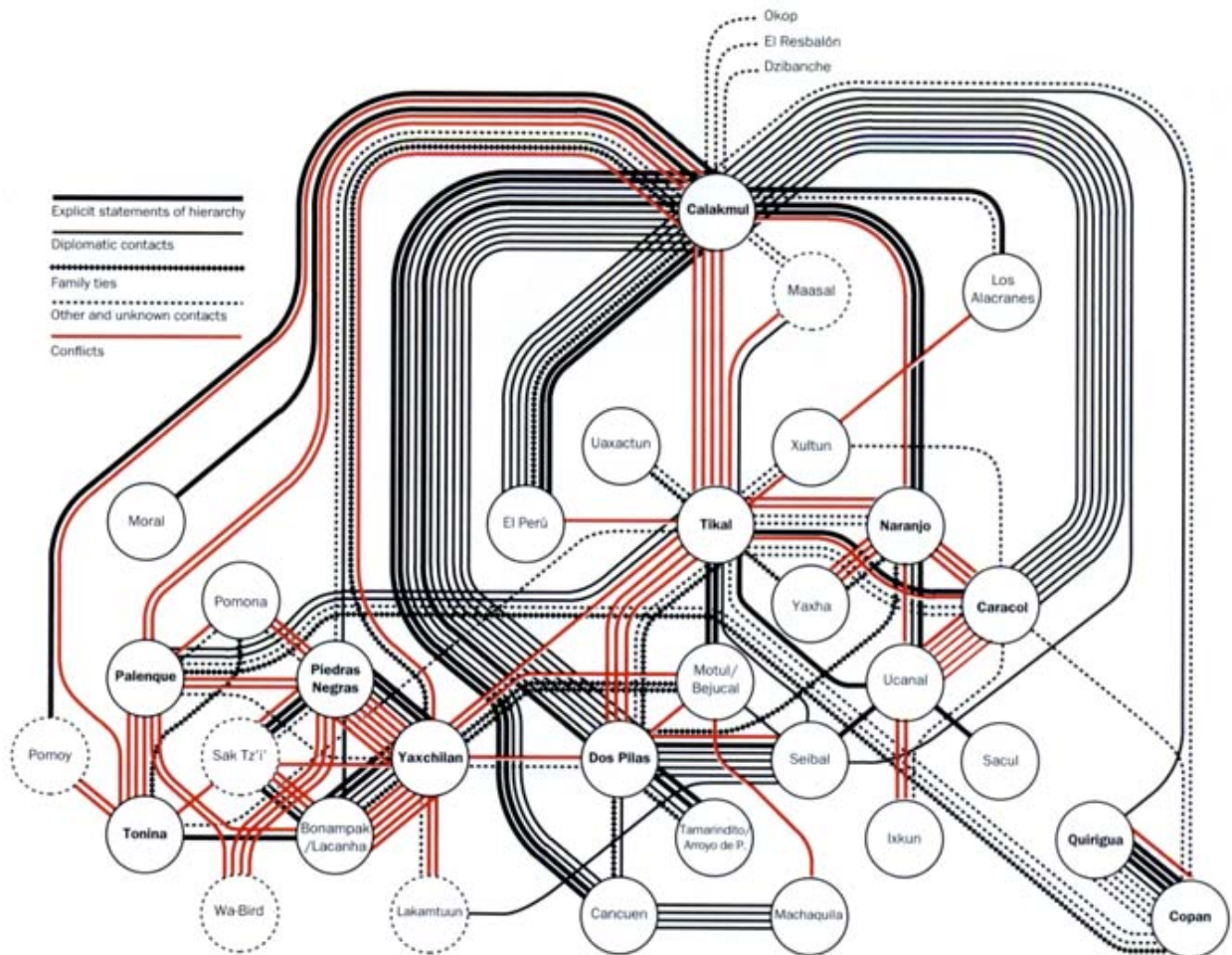


Figure 50 - The political landscape during the Classic Maya period (Martin and Grube 2008: 21)

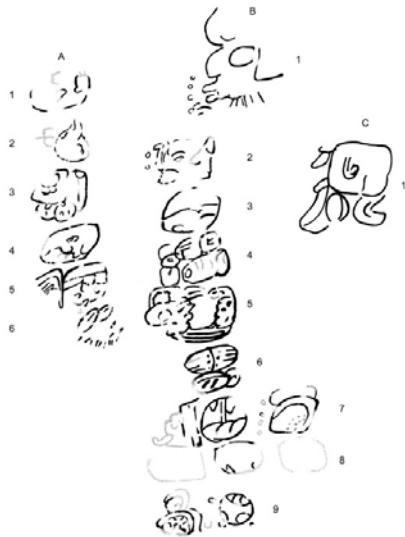


Figure 51 - Hieroglyphs from the northern wall at Structure A1, Cahal Pech (Helmke and Awe 2010:28).



Figure 52 - The northern (blue) and southern (yellow) trade routes (Chase and Chase 2012: 10).

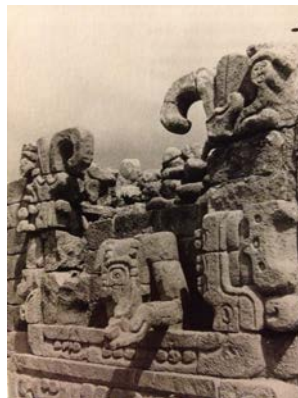


Figure 53 - Facade of structure 9N-82 C (Fash 1991: 118)



Figure 54 – Scene with scribes (Mayavase.com K0717)

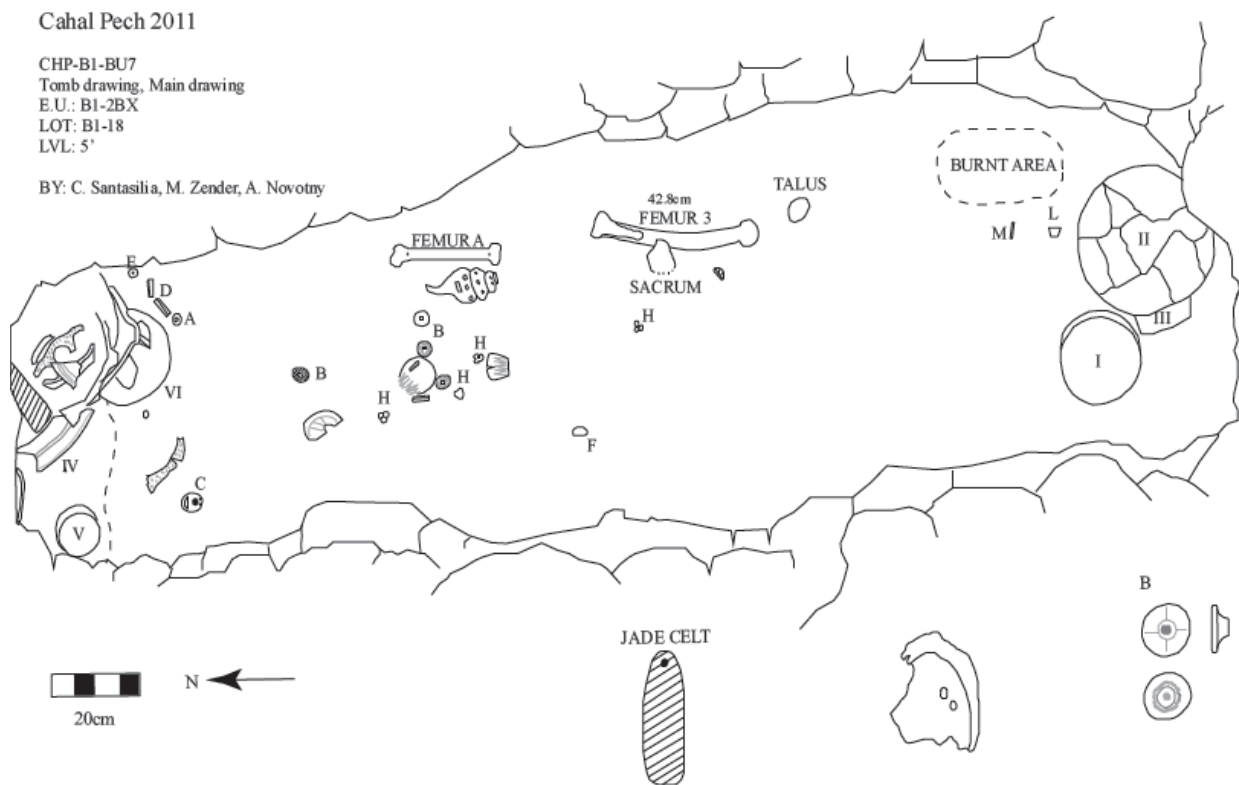


Figure 55 – Burial 7 –the tomb and location of artifacts (By C. Santasilia, M.Zender and A. Novotny)

Cahal Pech 2011

CHP-B1-BU7
Tomb drawing/vl 2
E.U.: B1-2BX
LOT: B1-18
LVL: 5

BY: C. Santasilia, A. Novotny, M. Zender

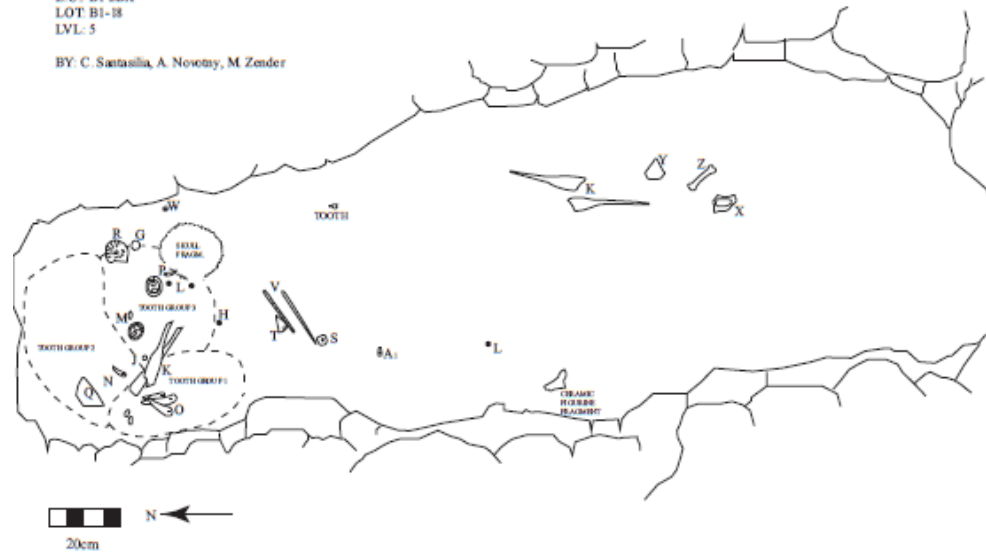


Figure 56 - Burial 7 –the tomb and location of artifacts (By C. Santasilia, M.Zender and A. Novotny)

Cahal Pech 2011

CHP-B1-BU7
Tomb Drawing, upper body
E.U.: B1-2BX
LOT: B1-18
LVL: 5

BY: C. Santasilia, M. Zender, A. Novotny

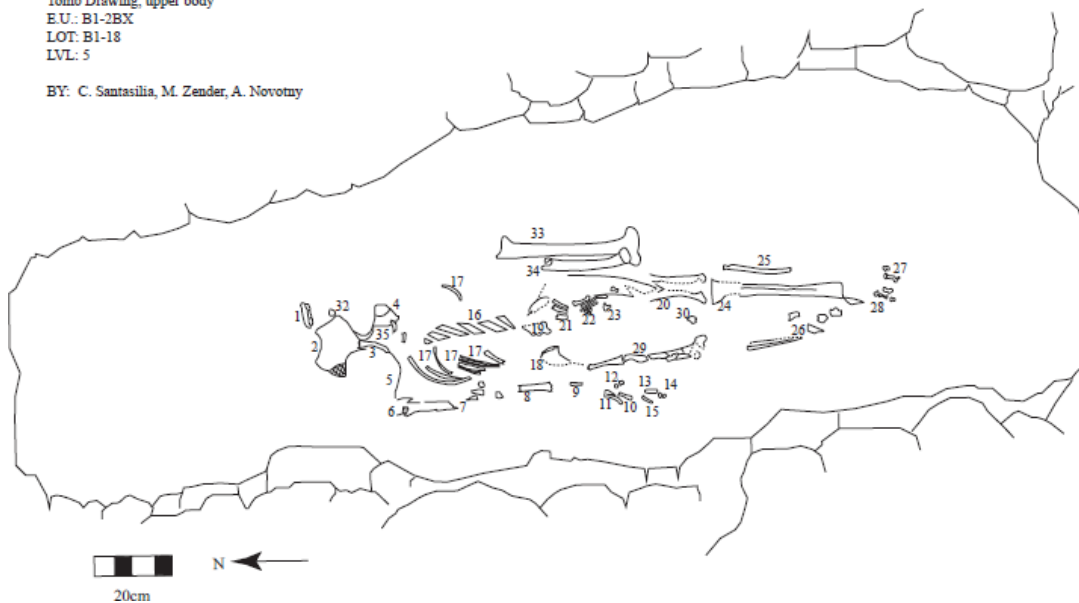


Figure 57 - Burial 7 –the tomb and location of artifacts (By C. Santasilia, M.Zender and A. Novotny)



Figure 58 - Vessel K5164: woman intertwined with a snake with K'awiil on the left (from mayavase.com)

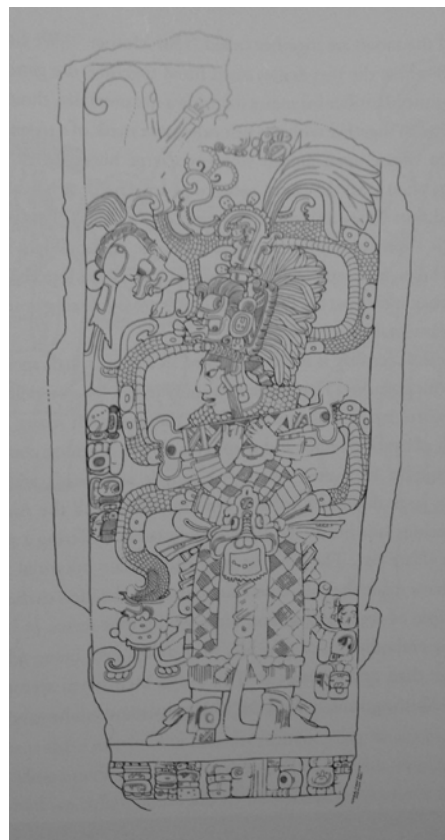


Figure 59 – San Francisco Stela: Queen Ix Mutal Ajaw (Miller and Martin 2004: 98)

Appendix: Skeletal analysis

All analysis of the human remains was done by Anna Novotny from Arizona State University. This appendix is based on Anna's report from 2011, but with certain alterations (BVAR publication 2012).

METHODOLOGY

All skeletal data were collected in accordance with the Standards for Collection of Data from Human Skeletal Remains (Buikstra and Ubelaker 1994). Standards is a compilation of techniques used in osteological analysis which outlines methods for determining age, sex, pathological conditions, and cultural body modifications. As much of these data were collected for each individual as possible. Age was estimated for most skeletons by dental wear and dental eruption, although where preservation was adequate epiphyseal closure, cranial sutures, and pelvic morphology were also used. Sex was determined by skeletal development and carpal measurements.

FIRST INDIVIDUAL

Element	Side	Completeness
Femur	Left	75%
Patella	Left	75%
Tibia	Right	25%
Humerus	Right	25%
Rib Fragments	---	>25%
Sacrum	---	>25%
Pelvis Fragments	---	>25%
Vertebral Fragments	---	>25%
Scapula	Right	25%
Cervical 1	---	>25%%
Fibula	Left	5%
Metacarpal Fragments	Left	5%
Cranial Fragments	---	25%
Femur	Right	25%
Trapezoid	Right	100%
Scaphoid	Right	50%
Hamate	Right	25%
Hand Phalanges	---	25%
Metacarpals	Right	75%

Patella	---	50%
Cuneiform1	Right	50%
Cuboid	Right	50%
Metatarsals	---	25%
Pedal Phalanges	---	100%
Tibia	Right	25%
Fibula	Right	25%

Table 1: Skeletal inventory, CHP-B1-BU7, first individual.

RM3	RM2	RM1	RP4	RP3	RC	RI2	RI1	LI1	LI2	LC	LP3	LP4	LM1	LM2	LM3
	X				X?				X	X			X?		
		X			X	X	X						X		
RM3	RM2	RM1	RP4	RP3	RC	RI2	RI1	LI1	LI2	LC	LP3	LP4	LM1	LM2	LM3

Table 2: Dental inventory, CHP-B1-BU7, first individual.

Conclusion

Although the skeletal remains of Individual 1 were poorly preserved, information on age, sex, and mortuary ritual were attained. The body was that of an adult female who was laid in an extended, supine position with head to the north. No pathologies, evidence of trauma, or culturally motivated body modification were observed.

SECOND INDIVIDUAL

Element	Side	Completeness
Maxilla	Left	25%
Zygomatic	Left	25%
Maxilla	Right	25%
Temporal (TMJ)	Right	25%
Occipital	---	10%
Parietal/Frontal Fragments	---	>25%
Temporal	Left	>25%
Zygomatic	Right	50%
Humerus	Right	50%
Ulna	Right	25%
Radius	Right	50%
Humerus	Left	>25%
Radius	Left	50%
Ulna	Left	50%
Scapula	Right	>25%

Clavicle	Right	>25%
Capitate	Left	<75%
Scaphoid	Left	25%
Metatarsal 1	Left	50%
Hand Phalanges	---	25%
Metacarpal Fragments	---	---
Ilium	---	25%
Rib Fragments	Left/Right	>25%
Fibula	Left	75%
Tibia	Left	75%
Patella	Right	>25%
Lumbar Vertebra	----	50%
Tibia	Right	25%
Femur (head only)	---	>25%
Fibula	Right	25%
Calcaneus	---	>25%
Talus	---	>25%
Metatarsal Fragments	---	>25% each
Pedal Fragments	---	25%

Table 3: Skeletal inventory, CHP-B1-BU7, second individual.

RM3	RM2	RM1	RP4	RP3	RC	RI2	RI1	LI1	LI2	LC	LP3	LP4	LM1	LM2	LM3
	X	X	X	X		X			X	X	X		X		
			X	X	X	X	X		X	X		X	X		
RM3	RM2	RM1	RP4	RP3	RC	RI2	RI1	LI1	LI2	LC	LP3	LP4	LM1	LM2	LM3

Table 4: Dental inventory, CHP-B1-BU7, second individual.

Conclusion

Individual 2 was the primary interment of an adult male laid in an extended, supine position with head oriented to the north. Several parts of the body were disturbed after its initial interment. The left leg was found disarticulated from the body but lying next to it, and the right leg was found to be rotated extremely to the right. The cranium was also disturbed and had been placed just above the left shoulder. Traces of red pigment were found on the skull. The individual suffered traumatic injuries to his left elbow and left ankle – both likely disarticulations of the joints. Neither joint healed well; the individual suffered from severe osteoarthritis secondary to the trauma. Movement of the elbow and ankle were almost certainly impeded. The ostentatious grave goods, the traces of red

pigment on the skull, and the secondary treatment indicate he was probably a person of some importance in the Cahal Pech community.

THIRD INDIVIDUAL

A group of foot bones were recovered immediately beneath the second individual, in the northwest corner of the Tomb. The deposit consisted entirely of foot bones, and possibly fragments of lower limb bones such as the fibula. The bones were extremely fragmented and turned to dust upon excavation. These bones were surrounded by an organic matrix, which was tinged red. Some of the red color transferred to the bone's surfaces. The bones all seemed to be in articulation, in situ. The presence of a talus from the left and right sides suggests that they are the feet of one individual. The rest of the body was not recovered.

Two scenarios explain the deposit. First, the feet are the remains of a primary burial that was removed for interment of the second individual. They may have belonged to the individual whose isolated remains were found in the vessels at the north end of the tomb, although there is no way to know for sure. Second, the feet were deposited as part of the interment of the second individual and were taken from a primary burial that was disturbed during construction of the tomb or whose feet were exhumed for special interment with the second individual in the tomb.

Element	Side	Completeness
Talus	Left	75%
Sesamoid	---	100%
Metatarsal Fragments	---	>25%
Cuboid	---	50%
Cuneiform	---	50%
Pedal Phalanges	---	100%
Calcaneus Fragments	---	>25%
Talus	Right	>25%
Calcaneus Fragments	---	>25%

Table 5: Skeletal inventory, CHP-B1-BU7, third individual.

ISOLATED HUMAN REMAINS FROM BURIAL 7

Beneath the capstones of the tomb, at the north end of the tomb space, five ceramic vessels were recovered. The stacked vessels contained human skeletal remains. The skeletal elements were from the cranium, axial, and appendicular parts of the skeleton, although the thoracic region and the hands were not well-represented. The remains were disarticulated and were most likely removed from their primary place of interment and re-deposited in the tomb. The iconography of one vessel referenced ancestral beings and secondary burial of important ancestors was a practice of the ancient Maya (McAnany 1995). Two diagnostic fragments were recovered from the vessel assemblage – the mastoid process of a right temporal, fragment of os coxa. Both elements indicate a female

individual was part at least a part of the interment. Tarsals and metatarsals collected from the vessel were also small in size. Due to the fragmented nature of the remains, no elements diagnostic for specific age were recovered. The individual was an adult based on skeletal development.

The isolated remains are most likely a secondary interment. The remains from within and around Vessel 8 may have been from the same individual. The fact that there are no duplicate skeletal remains suggests that the bones are from one individual. However, lack of articulation and poor preservation makes it difficult to say for sure. At least one individual was an adult female, based on morphology of the cranium and pelvis. No pathologies, evidence of trauma, or cultural body modifications were observed.

DISCUSSION

The multiple interments in the tomb clearly indicate extended mortuary treatment. The following is a reconstruction of events that produced the deposit:

1. The deposit consisting of bones of the feet were deposited at the north end of the tomb. There is not enough information to determine whether it is a primary, disturbed or secondary deposit.
2. The second individual, an adult male, was interred slightly above and to the east of the deposit of foot bones.
3. The tomb was opened again and the bones of the second individual were disturbed. This occurred when the body was mostly, but not completely, decomposed. The skull was placed on its base, facing south, at the left shoulder of the second individual. The teeth of the individual were found scattered among the ribs and vertebrae and were most likely dislodged when the skull was moved. The left leg was also disturbed. There are several possible reasons for this disturbance.
 - a. First, the second individual may have been disturbed accidentally by workers attempting to locate the bottom of the tomb. In this scenario the disturbance of the bones is accidental and not intentional.
 - b. Second, the second individual may have been the subject of ancestor veneration ceremonies involving tomb re-entry, ritual treatments like smoking or painting the bones red, or curating them for ritual purposes. These rituals were done to appease and communicate with deceased ancestors (McAnany 1995).
4. After the disturbance to the second individual the remains of the first individual, an adult female were placed within the tomb, directly on top of the second individual. She was placed in a supine, extended position with head to the south. It is not known how much time elapsed between their interments.
5. Ceramic vessels were placed at the north and south ends of BU7, one of which held a secondary deposit of human skeletal remains.
 - a. The placement of these vessels could have been concurrent with the interment of the first individual.
6. The tomb was backfilled and remnants of the second individual, which was disturbed for the interment of the first individual, were left intermingled with the soil.
 - a. The remains were mostly too poorly preserved to determine if they actually belong to the second individual or to the secondary burial within Vessel 8.

7. The tomb was sealed for the second time.

CONCLUSION

In conclusion, the remains of at least three individuals were encountered in Str. B1 at Cahal Pech. All remains were those of adults, but no further age determination could be completed due to poor preservation of the skeletal material. Of the two primary burials one was a male and one was a female. At least one female was included in the secondary deposit of skeletal remains within Vessel 8. Numerous isolated remains, including bones of the feet found near the floor of the tomb, were also encountered but it was not possible to estimate sex for these.

The skeletal remains of all individuals were extremely deteriorated. However, pathological bone formation was observed in the left elbow and ankle joint of the second individual. These pathologies are most likely osteoarthritis occurring secondary to a trauma like a fall. The skeletal remains of the second individual were also disturbed, either for purposes of veneration or in the process of interring the first individual. Future research will focus on determining the geographical origin of the individuals interred in BU7, as well as the origin and significance of the numerous artifacts interred with them. Strontium isotope analyses are planned to determine the origin of these individuals.

Appendix 3: Hieroglyphic report

Edited by C. E. Santasilia

Glyphic Inscriptions of the Structure B1 burials at Cahal Pech, 2011-2012

Marc Zender, Visiting Assistant Professor, Dept. of Anthropology, Tulane University

Introduction

During the past three field seasons (2011-2013), I have been privileged to be a part of the joint BVAR-AFAR excavations at the site of Cahal Pech, Belize. In addition to supervision of student excavations of Structures B1-3 and B6-7, I helped to record the excavations of four burials in Structure B1 in plans, measurements and drawings: Burial 7 (2011), Burials 8 and 10 (2012) and Burial 12 (2013). Given my epigraphic specialty, I was also responsible for the recording (in photographs and line drawings) and interpretation of the hieroglyphic inscriptions discovered in Burial 7, as well as in Burial 2 (which had been initially excavated by Peter Schmidt in 1969, but was reopened and completed in 2012).

All five of these burial contexts were excavated by Catharina E. Santasilia, with assistance from various excavators (Antonia Itza in 2011, Jim Puc in 2012, and Doug Tilden, Jim Puc and Eduardo Cunil in 2013) and various physical anthropologists (Anna Novotny in 2011, Caitlin Stewart in 2012, and Ashley McKeown and two of her students in 2012-2013), all under the general direction of Jaime Awe. My own contributions were therefore just as one member of a very large team.

This report focuses narrowly on the epigraphic contents of Burials 2 and 7 of Structure B1 recovered during the 2011-2012 field seasons. (Burials 8, 10 and 12 had no epigraphic contents.) These inscriptions are still very much under investigation (particularly the very fragmentary and partial remains of Burial 2), but enough can be discerned at present to make this initial report useful.

As there is no particular ordering principle at work in the inscriptions — that is, they are not part of a larger epigraphic program, none of them contain hieroglyphic dates, and there is no indication of topical overlap — I will present them, purely for convenience, in the numerical order of the burials from which they came.

The inscriptions to be presented in this report are as follows:

1. Incised turtle shell fragments (Burial 2, excavated 2012)
2. Incised bone rings (Burial 7, excavated 2011)
3. Incised bone needle fragment (Burial 7, excavated 2011)

I turn now to a discussion of these three contexts.

1. Incised Turtle Shell Fragments

As briefly noted above; Burial 2 of Str. B1 was initially excavated by Peter Schmidt in 1969. Although still unpublished, many of the materials recovered from this burial are still housed in the Institute of Archaeology, as are some of Schmidt's notes and a rough plan of the burial. These, coupled with the compact nature of the incised turtle

shell fragments discovered in 2013 (see Figure 1 below), make it likely, but not certain, that no earlier fragments had come to light in 1969. (If they did, then apparently they no longer survive.)



Figure 1. The incised turtle shell fragments in situ (photograph by C. E. Santasilia)

According to Norbert Stanchley (personal communication, 2012), the fragments are part of the upper (dorsal) carapace of an American Freshwater Turtle (or Slider). His ongoing investigation of the fragments should provide an independent check on whether the entirety of the shell is present, and whether or not we should consider that some earlier fragments may have been excavation by Schmidt. On present evidence, it seems that the entirety of the dorsal carapace was once carved/incised with a linear design, some of which was apparently in-filled with hematite (iron oxide).

The remains are now too fragmentary to be certain as to what the design represented. Additionally, six fragments contain traces of a hieroglyphic inscription which once ran bilaterally across the ventral carapace. These do not form a complete text, suggesting that a significant amount of the original object is missing.

The first large fragment (Figure 1) reveals the badly eroded verb **pa-ta-ja**, *pahtaj* ‘it was fashioned.’ This may have been the initial glyph of the inscription, but it is impossible to discount the possibility of other introductory material, given parallel constructions elsewhere.

The five remaining fragments with hieroglyphic inscriptions can be seen in Figure 2, each of which bears partial remains of from 1-2 glyph blocks. Their order is for the most part uncertain (though see below), but the individual hieroglyphs can be read as follows:

- (1) **a-ku AJ**..., *Ahk Aj*..., ‘turtle, Aj...’
- (2) **u-ju**..., *uju*..., ‘his/her *ju*...’
- (3) **K’AN-na-BAHLAM**...-**wa**, *K’an Bahlam ...w*, ‘Yellow/Tawny Jaguar ...’
- (4) **yu**
- (5) ?

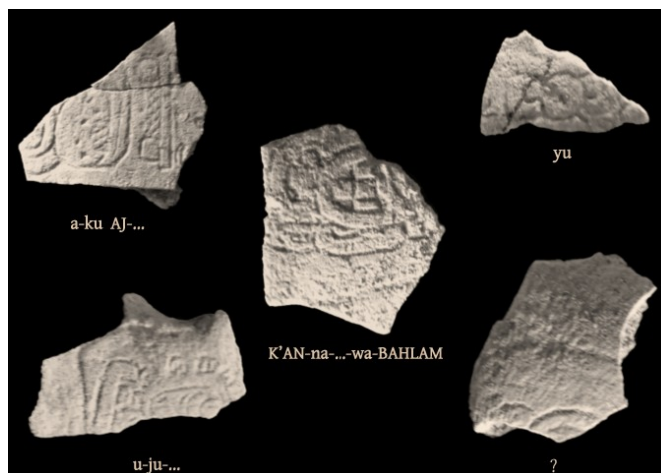


Figure 2. Five turtle shell fragments with inscriptions (photographs by M. Zender)

The spelling **a-ku** for *ahk* ‘turtle’ is very common in Mayan hieroglyphic inscriptions, often forming part of the names of kings and gods. Coupled with the fragmentary nature of the inscription (much of the text is certainly missing) this explains why I didn’t at first connect the spelling to the object this text was incised on: namely, a turtle shell. But given the fragmentary **u-ju-...** spelling, which could conceivably have once recorded **u-ju-chi(-li)**, *ujuuch(il)* ‘his/her/its shell’, a common collocation on other carved shells, I would now speculate that these two fragments once provided the sequence **u-ju-chi(-li) a-ku AJ-...** for *ujuuch(il) ahk Aj...*, or ‘It is the turtle-shell of Aj ...’ (see Figure 3).

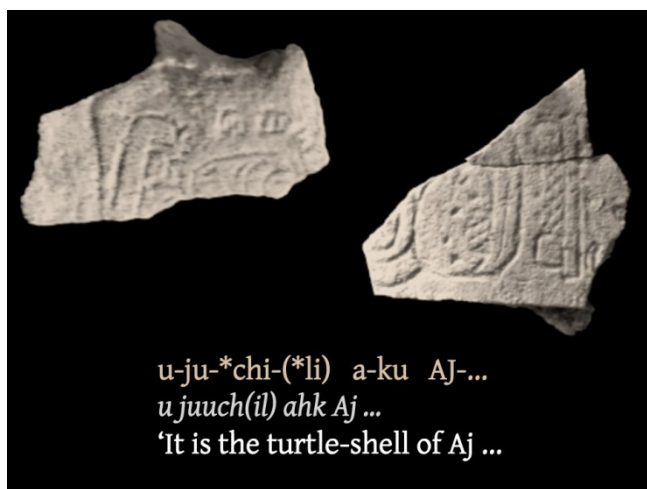


Figure 3. Suggested ordering of two turtle shell fragments (photographs by M. Zender)

Equally intriguing is the third turtle shell fragment, which records a nominal (perhaps titular) element also known from the two incised bone rings, and which can be transcribed as **K'AN-na-*BAHLAM-...-wa**. I will discuss this element in more detail below, but for now suffice it to say that it is a strong candidate for a traditional title for Cahal Pech nobility. It is presently known from nowhere else.

To summarize the foregoing, then, this object appears to have been an incised turtle carapace. What its use was can only be guessed. (Perhaps a drum like the musical instruments occasionally depicted in Maya art?) Whether it was interred whole or already in fragments can also only be guessed, and will have to await analysis by Norbert Stanchley to determine how much of the carapace itself is missing. Like many portable objects, it apparently

included a brief dedicatory text describing its fashioning, a brief description, and the name (and possibly title) of its owner, only part of which survives.

2. Incised Bone Rings

Among other rich offerings of jade, shell and bone discovered in Burial 7 during the 2011 field season (excavated by Catharina E. Santasilia and Antonio Itza) two small incised bone rings are perhaps the most unique and distinctive (Figure 4). Both have suffered substantial erosion (mostly scratches and surface pitting), though the first ring remains intact and is substantially better preserved, whereas the second broke into four large fragments before it was discovered and its inscription has suffered greatly as a result.



Figure 4 — Two bone rings with inscriptions (photographs by M. Zender)

The rings are very small (less than two centimeters in diameter), very thin (2-3mm thick, on average), and very finely incised, with glyph blocks about 1.5cm square. Each ring bore four glyph blocks, and close analysis of the inscription reveals that the texts were perfectly parallel, the only textual variation coming from the well-attested glyph substitution in the third glyph block of the **K'INICH** logogram (on the more poorly-preserved ring) for the logographic-phonetic spelling **K'IN-ni-chi** (on the better-preserved ring). Otherwise, and despite the erosion, the two texts are completely identical.

I drew both inscriptions in the field, tracing over circumferential photographs, and then checked the drawings carefully against the original objects (Figure 5).

Since practically all inscriptions on portable objects begin with a possessed 'name tag' (such as "his vase", "his bone", etc.), it was obvious that these two inscriptions had to begin with the **yo-?-bi** collocation, as indicated in the drawings. Ever since David Stuart's (1987) publication detailing the decipherment of the syllable **yo**, it has been clear that this sign serves to record the third person possessive prefix *y-* on nouns beginning with the vowel *o*, and there is no other potential possessive marker in either of these two texts. Similarly, the syllable **bi** has been well-known since the 1950s, and has more recently been recognized as frequently providing the instrumental suffix *-ib* (or *-Vb*) on derived nouns (Houston et al. 2001).



yo-?-bi K'AWIIL-la-CHAN-na K'IN-ni-chi K'AN-na-BAHLAM-?-wa

y-o...-ib K'awiil Chan K'inich, K'an Bahlam ...w

The ring/tube of K'awiil Chan K'inich, K'an Bahlam ...w



yo-?-bi K'AWIIL-la-CHAN-na K'INICH K'AN-na-BAHLAM-?-wa

y-o...-ib K'awiil Chan K'inich, K'an Bahlam ...w

The ring/tube of K'awiil Chan K'inich, K'an Bahlam ...w

Figure 5 — Two inscriptions on the two bone rings (drawings by M. Zender)

The only mysterious element in this ‘name tag’ was the middle sign, often nicknamed ‘k’in-imix’, because it resembles the ‘sun’ sign (**K'IN**) infixed into T501 Imix. But the behavior of this sign in other contexts makes it clear that it represents a single CV syllable, not a compound. The sign is relatively rare, however, and has only been documented in the following different contexts:

(AJ-/a-)#-...-ni	(spelling a common, but poorly understood title) ya-...-ni	(a
unique possessed form of the title on K5070) ju-...	(CNC Panel 1, NTN drawing 82)	
...-su	(‘Denver’ panel)	
...-sa	(El Peru stelae)	
yo-...-bi	(Cahal Pech)	

The contexts are not numerous, and they are not such that a strong phonetic value can yet be proposed that makes sense of all of them. Nonetheless, the new Cahal Pech context is sufficiently probative that it can be used to propose a tentative phonetic reading of **so**, which will require testing as new contexts emerge. The rationale for this reading stems from the following forms in relevant Mayan languages:

Ch'ol	otz-an	‘insert something’	
	< *och-es-an		(Aulie and Aulie 1998)
Chontal	os-en	‘insert, place inside’	
	< *och-es-Vn		(Keller and Luciano 1997)
Ch'orti'	os-e	‘put inside, fit a thing in or on’	
	< *och-es-e		(Hull 2005)

ose uor uk'ab makuiir e xoibir ‘fit one's finger into a ring’ (Wisdom 1950)

It's evident that Ch'olan languages have an intransitive verb root *och* ‘to enter’ that can be derived as a causative/transitive verb *och-es* ‘to insert (i.e., make something enter/go in)’. Over time, the vowel of the *-es* causativizer is syncopated and lost, probably due to the addition of still further suffixes and resultant stress shift, and this results in an impermissible *chs* consonant cluster. The modern languages handle this impermissible cluster in two different ways, either deleting the *ch* (Chontal and Ch'orti') or transforming *chs* to *tz* (Ch'ol). The language of Classic Mayan inscriptions is generally recognized to be closer to Eastern Ch'olan, of which Ch'orti' is the sole surviving member. For this reason, we might expect an Eastern Ch'olan word for ‘ring’ to have been something like *osib*, from **och-es-ib* ‘thing for inserting (a finger into); a ring’. In possessed form, in Mayan glyphs, this would be written either **yo-so-bi** or **yo-si-bi**. Given that the ‘k'in-imix’ syllable never substitutes for the known **si** signs, **so** emerges as the best candidate for the moment.

Thankfully, the two glyph blocks following the possessed noun are much more transparent, and they provide the personal name K'awiil Chan K'inich. The name is a compound deity name common in Mayan inscriptions, meaning something like ‘the Sun God (K'inich) is like Lightning (K'awiil) in the Sky (Chan)’. And the name is already attested as that of a mid-8th century king of Dos Pilas, Guatemala, though here it must be that of a namesake. Whether it represents the name of one of the tomb's occupants or of the original owner or commissioner of the ring (if an heirloom) cannot yet be ascertained.

The final glyph block on the rings also includes an undeciphered sign: **K'AN-na-BAHLAM-...-wa**. The elements K'an Bahlam are clear enough and mean ‘Yellow (or Tawny) Jaguar’. The uncertain element is the sign T594a/b, which resembles a checkerboard and remains undeciphered. Despite being a well-known element in the hieroglyphic name of the Palenque patron god GIII, there simply aren't enough clues at present to propose a reading for this evident logogram. All that's clear at present is that the **-wa** syllable which follows the sign three times at Cahal Pech, in several contexts at Palenque, and in Naj Tunich Cave Drawing 29, is an optional phonetic complement, suggesting that the T594 ‘checkerboard’ sign registers a word ending in the sound *w*. That is, it must be a logogram for a word of the shape CVW.

That said, the appearance of the **K'AN-na-BAHLAM-...-wa** collocation at the close of a nominal string on the rings (and on the incised turtle shell), suggests that it may have served as a title, perhaps a traditional title of nobility from Cahal Pech. Further speculation will have to await additional contexts, but it's worth noting that this title string does not presently appear anywhere else.

3. Incised Bone Needle Fragment

Centrally located in Burial 7, but not located until screening and post-excavation cleaning of the finds, was a small fragment of an incised bone needle (Figure 6a).

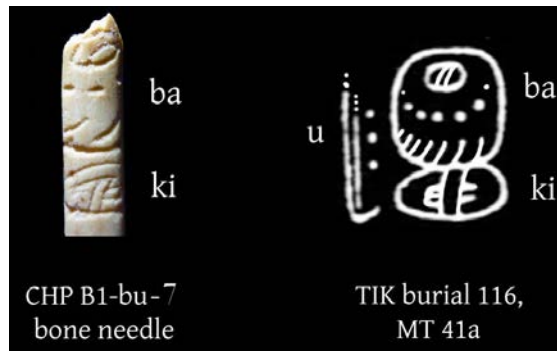


Figure 6 — The Cahal Pech bone needle (a), and a parallel text from Tikal (b).

The fragmentary inscription is hardly dramatic, but enough survives to read it as **ba-ki**, *baak*, ‘bone’. Like most portable objects with inscriptions, there was probably a possessive marker **u** preceding this short text, thereby rendering **u-ba-ki**, *ubaak*, ‘his/her bone’. Several parallel inscriptions are known, most famously at Tikal (see Figure 6b). As with the parallel texts, the possessed noun would have been followed by the name of the needle's owner. Unfortunately this information has been lost to us.

Concluding Comments

Considering the dearth of inscribed architectural and monumental texts at Cahal Pech, the discovery of three (admittedly brief) texts in three years of excavations of burials within Structure B1 is highly significant. It suggests that the elites of Cahal Pech weren't so different after all from their contemporary elites at other sites in the central Peten, in that they at least manipulated inscription-bearing objects. And it also suggests that the burials and caches of Cahal Pech probably still contain additional important historical information.

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