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Table of Contents

The Editorial. by Maxime Lamoureux-St-Hilaire, C. Mathew Saunders, and Brent K. S. Woodfill		
Research Report		
 Long-Term Collaborative Research with Lacandon Maya at Mensäbäk, Chiapas, Mexico. by Joel W. Palka, A. Fabiola Sánchez Balderas, Ian Hollingshead, Alice Balsanelli, Chris Hernandez, Santiago Juárez, Josuhé Lozada Toledo, R. Jon McGee, Sebastián Salgado-Flores 	p. 1–20	
Articles		
2. The Emergence of the Ancient Maya Kaqchikel Polity As Explained through the Dawn tradition in the Guatemalan Highlands. by Iyaxel Cojti Ren	p. 21–37	
3. The Archaeology of Intensive Beekeeping in Postclassic Yucatán. by Adolfo Iván Batún Alpuche	p. 39–56	
4. Disaster, Deluge, and Destruction on the Star War Vase. by Marc Zender	p. 57-75	
Book Review		
5. Ancient Maya Politics: A Political Anthropology of the Classic Period 150-900 CE. SIMON MARTIN. 2020. Cambridge University Press. by Maxime Lamoureux-St-Hilaire	p. 77-79	
Our Authors	p. 81–82	
The Mayanist Team	p. 83	



The Editorial

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We are proud to offer you the first issue of the second volume of *The Mayanist*. As we continue to hone our editorial skills and refine our workflow, we are becoming more confident in the future of our open-access, peer-reviewed journal. Before we further introduce this issue, we'd like to report that our second issue was downloaded at least 1,700 times directly from our *goafar.org/publications* website. This is excellent news, especially since this number does not include the many downloads of the individual papers posted on our authors' personal webpages and "scholar media" pages. Yet, we would like to emphasize that AFAR is a not-for-profit and that everyone on our editorial and layout team donates a generous amount of their time. Unlike most open-access journals, we also allow authors to make their articles freely available to all at no cost (i.e., most open-access journals require a few thousand dollars from first authors). If you enjoy our journal and would like to encourage our open-access endeavor, feel free to donate (any amount helps) when downloading issues from our website. These funds will help us pay our artists – who make our journal so unique – and continue to print a limited amount of hard-copies.

In these strange times, continuing our work on *The Mayanist* has been a beacon of normalcy and inspiration. This issue was originally planned in tandem with our 2020 Maya at the Lago (M@L2020) conference, scheduled to honor the career of Patricia McAnany, and centered on the timely topic of "Community Engaged Archaeology". While we had to postpone this conference to 2021 due to the global health crisis, we decided to continue with the 3rd issue of the journal. As further described below by our guest editor, we have kept true to the theme by both featuring an article on community engaged archaeology and by providing a fine publication platform for Maya scholars. We still hope to produce another complete issue dedicated to community engaged archaeology, which should be published in a year from now.

As the format, mission, and scope of our journal continue to evolve, we are adding new stones to our foundations. This issue contains three *articles*, a *report*, along with a new category of contributions, a *book review*. This first book review was written by our Editor-in-Chief, but in the future we hope to publish book reviews by guest authors.

We are proud to feature two new artists in this issue. Our principal illustrator – who produced a full-page illustration and two marginaliae for each paper in collaboration with their authors – is Luis "Guicho" Luin. He is a renowned Guatemalan illustrator who has worked for several archaeological projects over the past decades. We are also delighted to feature a custom epigraphic illustration by Kaqchikel artist Walter Paz Joj, a leading figure in the world of contemporary Maya scribes. Amongst other things, Walter Paz Joj is the designer of the glyphic form of our Maya at the Playa/ Lago logos. His artwork graces the back cover of this issue and was created in collaboration with our author Iyaxel Cojti Ren. Beyond our artists, we are incredibly lucky to continue to rely on Joel Skidmore's most excellent layout expertise. We have also benefited from the work of our new Copy Editor, Isabel Nowak, an anthropology student at Davidson College. We thank Davidson College's Dean Rusk Fund for sponsoring Isabel's excellent proof-reading work. We are also thankful to our generous and prompt anonymous reviewers who help us make this journal a strong contribution to our field. Finally, this journal is only possible thanks to our dedicated and responsive authors, and to our generous guest editor, Brent Woodfill, to whom we now give the floor.

From our Guest Editor

It has been a great honor to be the guest editor of this third issue of *The Mayanist*, and I'm excited to introduce the diverse batch of articles that follow. The themes contained within – collaborative research, ontology, and large-scale production of basic resources – are dear to my heart. The list of authors is an exciting mix of new blood and established scholars from Guatemala, Mexico, the U.S., and Canada.

Archaeology in Mesoamerica has always had more than a whiff of the colonialist about it. It began as a pastime for the Anglo, continental, and Latin elite – gentlemen of leisure, Ivy League professors, independently wealthy collectors, and associates of Porfirio Díaz and other powerful dictators. One can still visit the field camps set up by the Carnegie Institution, the University of Pennsylvania, and others from our field's storied heyday, some of which were so decadent that they now serve as luxury hotels! Even as international travel has become faster and more affordable, national infrastructure has improved, and the middle class has expanded – all of which have made the field more accessible – Maya archaeology continues to be largely the purview of foreigners and non-Indigenous Latin Americans. The 23+ contemporary ethnolinguistic groups we refer to as the Maya, in contrast, continue to be secondary players in the study of their own ancestors. Many of the benefits obtained by conducting archaeological fieldwork—tourist dollars, development projects, and opportunities for education and career advancement—are still channeled away from contemporary Maya communities along with the scientific knowledge gleaned from archaeological investigations.

As mentioned above, this issue of *The Mayanist* was designed alongside M@L2020, itself planned to honor Patricia A. McAnany. Patricia has been one of the leaders in forging an inclusive archaeology that not only incorporates descendant communities but finds ways for the field to be directly relevant to them. The timing for such a session feels notable. The struggle for inclusion has played out in ways big and small this year, from the protests of the deaths of George Floyd, Brionna Taylor, Ahmaud Arbery, and others at the hands of the police and other agents, to the legal

rulings that led to the closing of the Dakota Access Pipeline and the acknowledgement that half of Oklahoma is tribal land. Closer to the issue at hand, there is a heated battle over a proposed US law that would transform the way El Mirador and other archaeological sites in the center of the Maya Lowlands would be managed, inspiring renewed cries for decolonization within our field and the inclusion of Maya voices in our research and management plans.

M@L 2020 was to be a step towards that new model; although it was ultimately postponed due to the current global pandemic, the diversity of voices and topics lives on in this issue. The report by Palka *et al.* is an eloquent argument for the need to involve descendant communities in scientific research. The subsequent two articles, written by Iyaxel Cojti Ren and Adolfo Iván Batún Alpuche, drive this point home. They are K'iche' and Yukatek Maya, respectively, and their articles are stellar examples of how the field benefits exponentially from the inclusion of archaeologists who can seamlessly incorporate both Maya and Mayanist perspectives.

The first paper in this volume, "Long-Term Collaborative Research with Lacandon Maya at Mensäbäk, Chiapas, Mexico" by Joel Palka and his team, is a reflection upon the fifteen years they have been conducting collaborative research with contemporary Maya villages. The resulting text is invigorating, managing to model how to integrate descendant communities meaningfully into research paradigms while at the same time presenting concrete examples of how that integration benefits both the scientific and local communities. The project has benefited from the incorporation of community knowledge and input in multiple realms—the ways different forest resources are valued and used as well as the ramifications of a worldview in which *incensarios* and other important objects are conceived of as living beings. Their long-term relationship has resulted in dissertations, publications, and research experience for the academic stakeholders and in honing computer skills, acquiring supervisory experience, and building resumes for locals. I was particularly inspired by the process Hernandez and Palka used to acquire informed consent for their LiDAR survey, which resulted not only in obtaining permission for this potentially invasive project but a relatively enthusiastic buy-in, with multiple individuals content to know that there would be a permanent record of their community.

Cojti Ren's "The Emergence of the Ancient Maya Kaqchikel Polity as Explained through the Dawn Tradition in the Guatemalan Highlands" highlights the compatibilities between Western science and Maya mythohistory. She convincingly argues that conquest-era documents record the history of the highland Kaqchikel kingdom during the preceding 600 years, although these texts use the metaphor of "dawning" rather than the more familiar language related to the human experience of the West (the "birth" and "death" of capitals and dynasties). Settlement patterns and archaeological chronology give credence and refined dates to ethnohistorical records, while the specifics of migration and alliance not only identify the lineages who left behind the archaeological remains but provide a convincing explanation for long-observed linguistic idiosyncrasies.

"The Archaeology of Intensive Beekeeping in Postclassic Yucatán" by Batún Alpuche draws from ethnography, biology, and history to identify the massive role beekeeping played in the Postclassic northern lowlands. Through a careful reading of traditional apiary practices, Batún draws attention to often overlooked artifacts and architectural features—stone disks, niched walls, and semi-circular structures—which survive long after the bee hives move on.

Marc Zender's "Disaster, Deluge, and Destruction on the Star War Vase" touches on the same

basic theme as Cojti Ren, using a detailed reading of a single Late Classic polychrome vase to interrogate long-held assumptions about Maya mythology, warfare, and language. The vessel depicts multiple deities and animals aboard a canoe heading through a tempest towards an Underworld temple. Two deities observe from a star sign above. While this scene has been depicted in other contemporaneous works of art, including the famous Tikal bones, this piece allows Zender to propose a possible translation of the "star wars" glyph and open a window onto Classic Maya conceptualizations of warfare.

From our vantage point, one *k'atun* into the twenty-first century, Maya archaeology got off to a rough start, with a very narrow set of voices discussing their narrow set of interests with a mountain of problematic assumptions. While the gatekeepers of scientific knowledge are more open to hearing a diversity of voices today, we still have a long way to go before we have a truly inclusive archaeology. In the little corner of Guatemala where I work, for example, only a small number of families can afford to send their children to middle school, much less the distant universities in the nation's capital that would allow them to become professional archaeologists, doctors, or teachers. As long as the majority of Maya communities struggle to survive, they will continue to be underrepresented, and inclusion and equity remains a dream.

Still, I feel optimistic that we are at a significant turning point. The field is opening itself up to more and more diverse voices. More archaeological projects are finding value in, and investing in, building up descendant communities in addition to the corpus of archaeological knowledge. Amartya Sen (1999) defines development as the freedom for individuals and communities to choose their own destiny, and as education, income, and infrastructure develop that freedom throughout the Maya world, I see a future in which our field becomes a vital arena for discussions, explorations, and collaborations among a wide swath of local, regional, and international stakeholders. We still have a long way to go, but this volume shows me that we are heading in the right direction.

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Long-Term Collaborative Research with Lacandon Maya at Mensäbäk, Chiapas, Mexico

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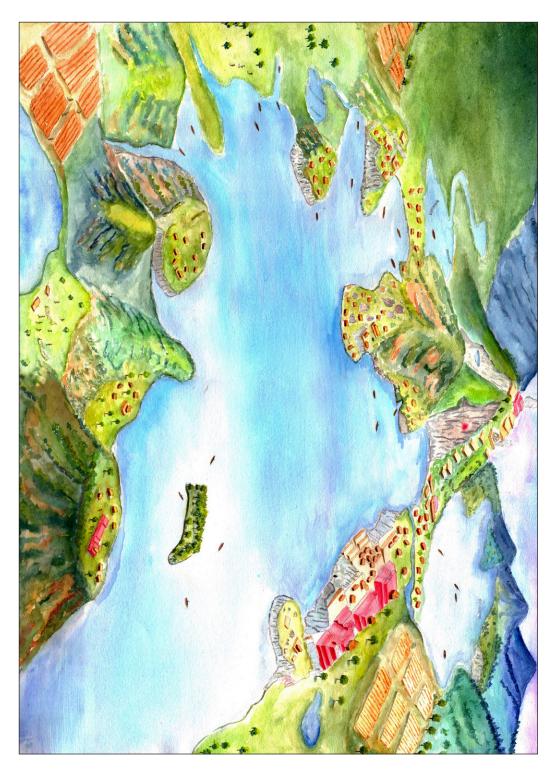
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The Mensäbäk Archaeological Project collaborates with a local Lacandon community in Chiapas, Mexico, to investigate Maya culture over a long period. Lacandon Maya and researchers plan and carry out the project together, focusing on ancient cultural practices, contemporary Lacandon lives, and community development. Archaeologists work and exchange information with Lacandon community members to learn more about Maya ruins, ritual landscapes, and rock art. Ethnographers collaborate with Lacandon people to acquire insights on their culture and converse with them about the past. An important aspect of the project is the commitment to community goals and needs through long-term interaction. Project members live in the community, providing the opportunity for close collaboration. Results of the project include insights into the occupations of the region over the last two millennia, culturally-nuanced interpretations of artifacts and shrines, and community development, such as forest surveys, economic development, and potable water.

Key words: Collaboration, Lacandon Maya, Community, Archaeology, Anthropology



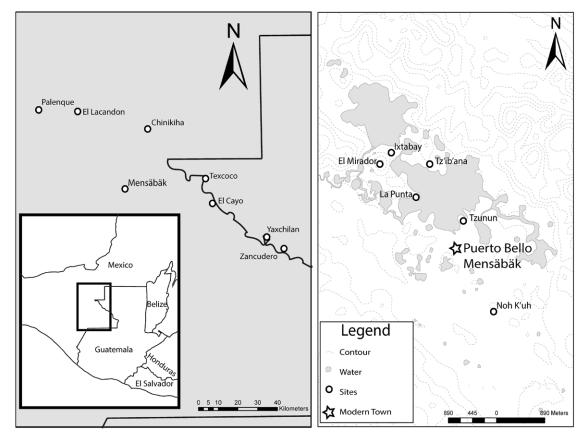


Figure 1. Location of Mensäbäk, Chiapas, Mexico, near known Maya sites and some archaeological sites at the lakes (courtesy of Santiago Juarez).

For over fifteen years, the Mensäbäk Archaeological Project (MAP) has relied on the informed consent of Lacandon Maya at Mensäbäk (also Puerto Bello Metzabok) and built collaborating relationships between researchers and community members. We join colleagues in creating collaborations with local communities to complete academic and public projects (Ardren 2002; Atalay 2012; Colwell 2017; McAnany et al. 2015; Sandlin and Bey 2006). Our project members consulted the community on project plans since the beginning and we have reached our goals by working and living together over the long term (McGee 2002). This ongoing interaction with Lacandon families and community officials has allowed us to mold our investigations and public outreach projects at Mensäbäk.

Mensäbäk, Chiapas, Mexico (Figure 1), is a national protected area and home to about 100 northern Lacandon Maya. Mensäbäk contains several lakes, the two largest being Tzibaná (also Tz'ib'ana) and Mensäbäk, and is dominated by the Mirador Mountain (Figure 2). We investigate Protohistoric (ca. 1400 – 1700 C.E.) and Late Preclassic (ca. 300 B.C.E. – 200 C.E.) sites found

in the area. Mensäbäk is an ideal place to collaborate with Lacandon Maya to learn about Maya culture and give back to an indigenous community. We work with the Mensäbäk community to get permission for research, ask their input in planning the investigations, and share resources and insights. The people of Mensäbäk have always expressed great interest in collaborating. They allow us to live in the community and they extend permission to do research with them. The Lacandon provide us with their perspectives on the sites and the past, in addition to deciding with us which sites to excavate. At the same time, we discuss our findings with them, provide project information, and address community concerns.

This article discusses our collaboration with the Mensäbäk Lacandon community. We have passed much time together, which has facilitated partnerships spanning several years to decades. Time has deepened our knowledge of our work as well as the lives of Lacandon collaborators in Mensäbäk. Most of what we have learned comes from living in the community on a daily basis for long periods. We have shared our insights with Lacandon and Tzeltal Maya residents while sitting in house gardens, participating in family dinners, during excavations, and walking through forests rather than formal, short-term interviews. Besides living in the community and engaging with people on a day-to-day basis, archaeologists also work and live with ethnographers to enhance collaborations and understandings with Lacandon Maya. Here we discuss our collective experiences in addition to providing individual highlights on living with, learning from, and sharing with our Lacandon collaborators (Figure 3).



Figure 2. Mirador Mountain (*Chak aktuun*) with its red-stained, east cliff (courtesy of Sebastián Salgado-Flores).

The Mensäbäk Archaeological Project and Community Collaboration

The genesis of the project can be traced to development work by Sánchez and Hollingshead where they established relationships with community members as directors of the Na Bolom cultural center, which is dedicating to helping and learning about Lacandon communities (Figure 4). Mensäbäk was known for rock paintings and ossuaries, but no archaeological sites had been investigated. Although cultural anthropologists had lived in Mensäbäk, no one knew about the vibrant Protohistoric Maya settlements at the lake (depicted on the paper's cover illustration), in addition to the large and unique Preclassic sites there. In 2003, community members Rafael Solórzano and Mincho Valenzuela, together with Sánchez (2005) and Hollingshead, traveled in a canoe across the lake to visit a plaza surrounded by structures at the site of Tzibaná. The following year with members of the Jaguar Speleological Group, Sánchez and Hollingshead made a rough map of the site and spent a night talking with Enrique and Mincho Valenzuela, respected community members, about what we had seen and what an archaeology project might mean for the community. Subsequently, Palka, who excavated Lacandon sites in Peten, Guatemala (Palka 2005a), brought the investigators together, and he and Sánchez became the project directors with Hollingshead, McGee, Juarez, Lozada, and Hernandez as co-directors. Balsanelli, who has done ethnographies at Mensäbäk, now collaborates with us, and Salgado continues his dissertation work on ancient forest ecology. Other archaeologists, ethnographers, physical anthropologists, and students participate in the project.

Lacandon people in Mensäbäk have a significant interest in a collaborative project focused on archaeology and anthropology. They knew of ruins and cave shrines around the lakes but wanted to



Figure 3. Palka testing a Lacandon bow with a collaborator (courtesy of Joel Palka).



Figure 4. Sánchez and a collaborator examine plants at Mensäbäk (courtesy of Fabiola Sánchez).

know who had lived there and when, and why there were many human bones found in cave shrines. Many Lacandon also expressed a desire for more people to visit the lake to learn about the reserve and bring in resources. Locals wanted research, tourism, and development projects at Mensäbäk and felt that we could help. Some Lacandon also stated that they live in one of the most beautiful areas in Mexico and that people would want to visit. The mountains, caves, and lakes have made Mensäbäk an important ritual landscape for Maya people. We wanted to know about the importance of this area to the Lacandon and their perspectives on the archaeological sites. We consulted with the community while we designed the project. The directors and community members decided to investigate the large archaeological sites and rock art shrines first. Thus, the project was launched with colleagues, community members, and students from Mexico and the U.S.

A key value guiding our work is community participation, and we have forged a collaborative relationship with local Lacandon Maya. We also collaborate with Tzeltal Maya at Mensäbäk who have intermarried with Lacandon families. Members of the Maya community generously share cultural knowledge and we try to reciprocate. Importantly, the project team strives to contribute to community well-being. We prioritize transparent, respectful and continuous communication with our host community. The project provides salaries for community members, both men and women, who work on the excavations and in the lab. We also help with education, health care, and the arts, including photography (Figure 5). The non-profit organization Xanvil, directed by Sánchez and Hollingshead, has secured financing for sustainable development projects that take a gendered perspective. Projects include supporting the work of community artisans and marketing community products from Lacandon women through fair trade networks. Project members have also secured funding for specific community infrastructure and construction needs, such as potable water.



Figure 5. Photograph of boa constrictor climbing trees to hunt (courtesy of Rafael Solórzano).

Landscape Archaeology and Lacandon Culture at Mensäbäk

One substantial collaboration consists of the examination of ritual landscapes. Lacandon Maya take visitors to significant landscape features around the lakes and discuss histories and mythologies related to these places (Palka and Sánchez 2012). The most prominent landmark is Mirador Mountain (see Figure 2), or *Chak Aktuun* (Red Cave/Hollow Stone), which dominates the lakeshore and has a red cliff on its east side. Many caves are found in the mountain, including a large vertical one on the summit. Archaeological evidence indicates that Mirador Mountain was an important ritual landscape for Maya people. Maya believe such mountains contain water, food, souls, and things people need (Pitarch 2010; Vogt 1993). Lacandon people state that this mountain was split by a rock or star hurled by the deity Mensäbäk, who is associated with rain and the land of the dead. We demonstrated to the community that Late Preclassic Maya focused rituals at a major pilgrimage shrine on this mountain (Palka 2014).

Members of the Lacandon community know that past Maya concentrated their rites in caves and cliffs. They have retained cultural knowledge regarding landscapes and ritual that helps inform the past. Visitors go to these sites with Lacandon to learn about how their guide's family members also used these places for ceremonies, including curing and agricultural rites. Another important place for the Lacandon is the Tzibaná cliff, which contains many rock paintings, including hand prints, animals, human figures, and painted hieroglyphs. Lacandon state that this is the house of Ts'ibajnah, the god of the house of painted writing, showing possible connections to past beliefs

regarding the cliff. Lacandon also believe that souls of dead people travel through the Tzibaná cliff to reside in the house of Mensäbäk, which is a cliff with rock art to the north. Mensäbäk is a Lacandon god of rain, keeper of dead souls, and one of the central deities at the lakes. Human bones rest on the surface of Mensäbäk's shrine and our investigations informed the community that men, women, and children were interred there during Protohistoric times. Locals have interesting cultural interpretations of the bones collected at this and other shrines: they are the bones of people who passed through the cliff to live with Mensäbäk, the bones of gods who went to the spiritual realm, or the remains of people who died during epidemics. Lacandon believe that a design on the cliff depicts Mensäbäk, who is associated with clouds, rain, the lakes, and the land of the dead. The design resembles the google-eyed Tlaloc, the Mesoamerican god of storms, conflict, and the realm of the dead, which shows the Lacandon have information about archaeological sites (Palka 2005b).

We have undertaken investigations of rock art at Mensäbäk (Lozada 2017a, 2017b; Palka 2005b; Sánchez 2005) where we identified diverse designs, including representations of deities associated

with water, abstract symbols, anthropomorphic figures, zoomorphs, and hand prints. Project members studying the hand prints drew and measured the hands of men, women, and adolescents in the community, which were compared to the hand prints on cliffs. This methodology follows the statistical studies of modern handprints and handprints in rock art to ascertain the sex and ages (including children's prints) of their authors (Nelson et al. 2017). The results indicate that, during the



Protohistoric Period, men, women, and children created these handprints on the cliff faces, likely during rituals. Community members took interest in these findings because many Lacandon felt that the prints were made by male ancestors or deities.

Recording oral histories and mythologies has enriched our fieldwork and knowledge of Lacandon culture and rock art at Mensäbäk. We are fortunate that Lacandon Maya share their insights with us. Speaking with older people at Mensäbäk has provided important information regarding the past. The qualitative data compiled by Lozada and community members suggest that rock art at Mensäbäk presents symbolism and worldview, where each direction in the Maya universe is associated with a color and a deity (Figure 6).

Beliefs regarding the ritual rock art sites present evidence for color symbolism associated with the cardinal points. The eastern direction situated at the rock art panel of *Jo'ton K'ak* can be associated with the god *K'ak* or the Lord of Fire and Hunting. East is associated with the color red or *chäk* in Lacandon Maya culture. Lacandon Maya state that *chäk* or red is the color of the east, dawn, and where the sun is born, like the east face of Mirador Mountain. In this case, fire, heat, and blood can be linked to the east along with concepts of the creation of life and courage (Vargas 1998:103). The center, according to the colors of Maya cosmogony, corresponds to the color *Ya'ax*, a term meaning green and blue. Green is represented by the color of the lake. *Ya'ax* is also the blue color of the sky and the center represents the zenith. Green is linked to the equinoxes, the central path of the sun, and the growth of life forces (Vargas 1998:106). The northern direction towards the cave is where the god *Sakapuk* lives and where Lacandon petition for cures for sick people. Lacandon Maya relate white to death, aging, dryness, sadness, and fear. Lacandon stories mention that white is associated with death and indicates the destruction of the world. When this moment occurs, they say that

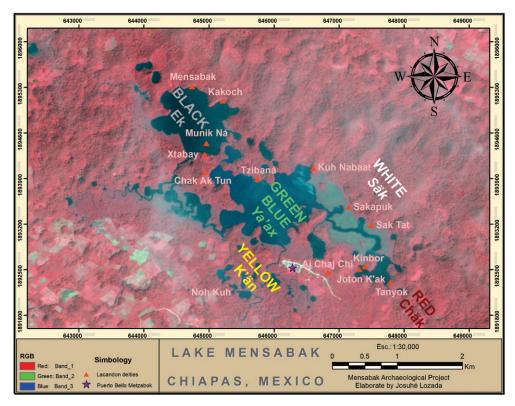


Figure 6. Lacandon Maya directional color symbolism and ritual landscapes at Mensäbäk (courtesy of Josuhé Lozada).

celestial jaguars will be released to eat people. These jaguars are called $s\ddot{a}kapuk$, described as white jaguars, although they sometimes translate the term as 'white destructor' (Vargas 1998). The cliff shrine to $Sak\ Tat$, another deity associated with white and the underworld, is found nearby and it has many human bones. White is $s\ddot{a}k$ and the color of the northern direction where the sun goes during the summer solstice. Black, ek', is the color of the west where the sun enters the world of shadows and the night.

The western direction marks the site of the Mensäbäk rock art panel represented by the god *Mensäbäk*, the deity associated with the land of the dead that makes black gunpowder and dark clouds. *K'än*, or yellow, is the color of the annual death of vegetation when the sun dies and is reborn during the winter solstice. Yellow is the associated color of the south and is linked with dryness (perhaps dry, yellow corn), happiness, and youth. This direction and color are related to people's skin, flesh, muscle, and corn (Vargas 1998:105). It may be because of this symbolism and favored place in the cosmogram that the Lacandon decided to establish their settlement and corn fields south of the lakes. The Lacandon call this southern region *Noh K'uh*, which is the name of a deity associated with agricultural fields and perhaps yellow maize.

Collaborative Remote Sensing at Mensäbäk

Project investigators and community members wanted to map the reserve, which encompasses 3368.35 ha. We determined that aerial mapping would be the most effective way for an area this size, and Hernandez approached the National Center for Airborne Laser Mapping at the University of Houston (NCALM) about conducting an aerial LiDAR (Light Detection and Ranging) survey (see Chase et al. 2016; Fernandez-Diaz et al. 2014; Garrison et al. 2019). To initiate the LiDAR project, we decided the first step was to continue our dialogue with the community on how the remote sensing could benefit the Lacandon (e.g., Atalay 2012; McAnany et al. 2015).

Our collaborative methodology drew inspiration from McAnany et al.'s (2015) community-based mapping in Guatemala. They highlight that "[c]onversations about archaeological findings and their importance or relevance, especially to descendant communities, has not been a high priority among archaeologists" (McAnany et al. 2015:9). This is a critical issue because indigenous activism asserts that marginalized descendants care about how their heritage is utilized (Breglia 2006; Colwell 2017). Consequently, we presented a mapping plan at a community gathering where Palka and Hernandez discussed aerial LiDAR. The meeting was held in the community structure and we showed slides to discuss past field seasons and plans for LiDAR (Figure 7). The use of illustrations was important because many people in the community can not read, and using imagery was stressed by local collaborators who warned that a lot of text could alienate community members.



Figure 7. Community meeting to discuss LiDAR mapping and research at Mensäbäk (courtesy of Chris Hernandez).

The meeting involved explanations of LiDAR technology and how it is used on an airplane. Next, we explained why this data collection could be useful for creating topographic, archaeological, and forestry maps for the community and researchers. We discussed how the data would be managed, including the Mexican federal requirements for data sharing. We covered a range of topics, including consideration of how LiDAR could benefit everyone. After the discussion in Spanish and Lacandon Mayan, we asked locals for permission to map the reserve with LiDAR. Many Lacandon expressed that they saw benefits for researchers, as well as their community. A phrase we heard was "it would be nice to have a record of the community". Many community members saw the LiDAR as a snapshot of the protected area that could be passed to future generations. Many families also anticipated economic benefits, including from tourism.

The processing of the LiDAR data is ongoing, and plans include an engagement with locals in geospatial analysis. We want to provide training for locals in GIS software and the analysis of digital geospatial information. In particular, Armando and Chankin Valenzuela have expressed interest in the LiDAR data to carry out agricultural and forestry research. They have experience in mapping and interpreting spatial information from working with Hernandez at the site of Tzunun. Many Lacandon are concerned with the preservation of the biosphere reserve. Maps of the community will allow people to monitor local flora and expand their investigations. Their work can provide inspiration for other Lacandon to develop skills in geospatial analysis for local benefits.

Community Archaeology and Information Exchange

Archaeologists frequently undertake research according to their interests rather than those of Maya communities (Colwell-Chanthaphonh and Ferguson 2008). In addressing this issue, project members have spent time living in the community before excavations began, talking to community



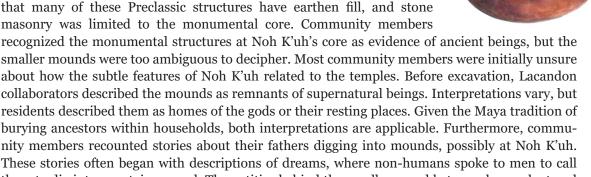
Figure 8. Lacandon women excavators and supervisors at Noh K'uh, Mensäbäk (courtesy of Santiago Juarez).

members to understand how they view the ruins and the past, and asking them what questions they have about their ancestors. Salgado-Flores identified an interest in ancient Maya environmental management among younger Lacandon. He subsequently tailored his doctoral thesis to examine firewood selection in the Late Postclassic period and the present. To initiate this investigation, he collaborated with Armando Valenzuela who studied in a university forestry program. Together they conducted a tree species survey at an abandoned Lacandon homestead. They continue to plan tree surveys and charcoal identification with the community to learn about firewood consumption over time.

In our project, we have worked with Lacandon, Tzeltal Maya, and colleagues and students from Mexico and the U.S. in excavations at Mensäbäk. Sustained work has been undertaken at sites prioritized by the Lacandon and us with Juarez and Salgado-Flores at Noh K'uh, Sánchez, Hernández, and Lozada at Tzibaná, Palka at Mirador Mountain, and Hernandez at Tzunun (see Figure 1). Noh K'uh is located about 2 km south of the community (Juarez, Salgado-Flores, and Hernandez 2019). At nearly 200 ha, Noh K'uh was a moderately sized center during the Late Preclassic period (400 B.C.E. - 200 C.E.). Over 300 mounds are located on low hills within a floodplain, with only 187

mounds currently recorded. Survey and excavations organized by Juarez indicate that the site's most recent phase dates between 395 and 1 B.C.E. Noh K'uh's occupation zones overlap with Lacandon fields, due to the flat surfaces of the ancient constructions.

Recent findings by Juarez and community collaborators indicate that many of these Preclassic structures have earthen fill, and stone masonry was limited to the monumental core. Community members



smaller mounds were too ambiguous to decipher. Most community members were initially unsure about how the subtle features of Noh K'uh related to the temples. Before excavation, Lacandon collaborators described the mounds as remnants of supernatural beings. Interpretations vary, but residents described them as homes of the gods or their resting places. Given the Maya tradition of burying ancestors within households, both interpretations are applicable. Furthermore, community members recounted stories about their fathers digging into mounds, possibly at Noh K'uh. These stories often began with descriptions of dreams, where non-humans spoke to men to call them to dig into a certain mound. The entities behind these calls ranged between benevolent and malevolent, but they all inspired fear. Some men described how they accompanied their fathers in the past in the excavations of mounds. When they encountered bones, they universally described a sense of dread and the digging as a transgression against a powerful being. Excavators refilled the mounds and made their best attempt to replace the earth and stone.

Current archaeological investigation of Noh K'uh is altering how the community views the site. Many excavations have been conducted and supervised by Lacandon men and women (Figure 8). Locals now see the mounds as something worth protecting, but were unsure about their origins and sought to learn about their age and general function. Using personal experience, the Lacandon Maya visualize these mounds as ancient homes. Most Lacandon excavators are eager to learn archaeological methods to understand the past. During excavations, community members identified ancient objects because many people had seen similar tools and materials within their lifetime.



Figure 9. Contemporary Lacandon stone and earth house platform at Mensäbäk (courtesy of Santiago Juarez).

Pottery, stone projectile points, *manos*, and *metates* are not foreign to the Lacandon, as several collaborators described their everyday use. Thus, community members were able to interpret evidence of domestic life as it was excavated. The Lacandon also recognized construction techniques to make mounds as similar methods are employed today (Figures 9 and 10). Such knowledge and expertise also benefit archaeologists who now have the opportunity to communicate with people who have seen similar building techniques and material culture.

The collaboration between archaeologists and the community is a process, and the effects of this cooperative relationship are ever changing. First, community members now discuss how the mounds are manifestations of ancient activity. Second, archaeology has altered the local work-place by allowing field assistants to cite their experience and demonstrate their ability to create and supervise their own businesses. Both women and younger Lacandon discuss their experiences of filling field forms, processing data with computers, and serving in supervisory positions as evidence that they are capable of advanced work in different fields. Finally, the interactions with the community provide archaeologists with first-hand experience in Maya traditions, which helps bridge the cultural divide between researchers and the local population.

Long-Term Ethnographies and Lacandon Culture

Ethnographic research with the community examines Lacandon lives, worldview, concepts of 'person' (*winik*), archaeological artifacts, and ritual landscapes since the first collaborations between the directors, McGee, and Lacandon people. Recently, Balsanelli has focused on Lacandon souls, bodies, the cosmos, and their perceptions of animals, plants, landscape features, and persons

(Balsanelli 2019a; see also Descola 2012; Latour 2007; Viveiros de Castro 2010). Balsanelli has talked to the Lacandon about what we call 'objects' in their ontology, in addition to understanding their cosmology by living day-to-day in their homes for long periods. Lacandon people have supported Balsanelli's and McGee's, and others' presence in the community by allowing them to stay in their homes, participate in domestic activities, and visit fields and forests together with family (Balsanelli 2019a; McGee 2002). The Lacandon community has treated project members as friends and many of us like an extended family. The immersion into their culture resulted in Balsanelli and McGee's learning about their lives through informal conversations in Lacandon (*jach t'an*) and not in interviews in Spanish where Lacandon concepts cannot be described. In this manner, insights on Lacandon lifeways has come from women at home, children in the village, and men in the forest and milpas in ways that Lacandon people live them. As a female ethnographer, Balsanelli has spoken to Lacandon women about lesser-known topics, including the preparations of ritual meals and associated taboos, pregnancy and menstruation, female gods, and how to sing to children's souls to help cure them (Figure 11). McGee has acquired a deep understanding of Lacandon rituals, mythologies, histories, changing economics, and social organization after decades of collaboration.

In the analysis of things and souls, Balsanelli has examined artifacts made by humans, which according to the Lacandon are animate subjects with souls that, like people, are born, grow, get old, and die. These subjects have language and complex emotions and they interact with similar animate subjects/objects. We can, therefore, reexamine Lacandon effigy incense burners (*u lak'il*

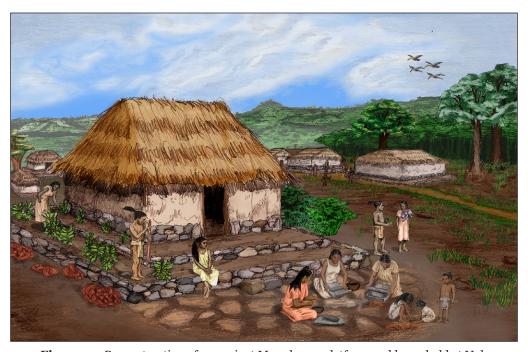


Figure 10. Reconstruction of an ancient Maya house platform and household at Noh K'uh, Mensäbäk, with the peak of the Mirador Mountain in the background (courtesy of Santiago Juarez).



Figure 11. Lacandon woman making tortillas in a kitchen at Najá, Chiapas, Mexico (courtesy of Alice Balsanelli).

k'uj), the incense burner renewal rite (Tozzer 1907), and ritual copal and rubber figurines (tu lis k'ik; McGee 1984). Lacandon people consider these things as animate beings parallel to humans (Cuevas 2007; Marion 1994). The incense burners' lives are over when they are substituted for new ones; the old ones are ritually killed and the new ones animated during ritual (Marion 1994; Tozzer 1907). As a person must be buried to transition to the next realm, people place the dead incense burners inside caves. Since Maya caves serve as entrances to the underworld, it is logical that the caves and niches in cliff bases at Nahá and Mensäbäk are final resting or burial places of these once living things.

In this vein, project members have studied landscape features in Mensäbäk, visiting caves in the forest and near the lakes, and talking to Lacandon people about their religious significance (Figure 12). McGee and Balsanelli have accompanied people on visits to discuss the landscape with Lacandon Maya in their language. Caves, like other Lacandon subjects, are considered beings with life, as are the rocks inside (Balsanelli 2019b). These animate forces protect the offerings in the cave and punish anyone who does not behave properly in these significant places. Furthermore, owners (winkil), or lords (yumil), reside in caves and lakes and protect them (Thompson 2006). These entities can extract souls from persons acting inappropriately, such as letting women into sacred places, visiting a cave after contact with a pregnant woman, or throwing stones and shouting in caves. The main duty of the owners is to protect the human remains, incense burners, and things of ritual use in these places. Interestingly, older collaborators do not consider old bones and

things in these places as human creations, but as 'bones of the gods' (*u baker k'uj*) or the 'work of gods' (*u meyaj k'uj*). By extension, what we view as natural stone (*tunich*) and ruins (*u yatoch k'uj*; 'the house of gods') at Mensäbäk, the Lacandon define as homes of spiritual beings. Ancient Maya did not distinguish between natural and cultural things (Houston, Stuart, and Taube 2006); the Lacandon follow a similar ontology since rocks contain spiritual powers: people see rocks, but gods see cities and palaces (Boremanse 1998). Hence, natural and constructed places made by gods and humans at Mensäbäk are juxtaposed for the Lacandon, who make no distinctions between them.

Conclusions: Living and Working with Lacandon at Mensäbäk

Project members have developed close ties to the community and we have witnessed children grow into adults, graduate from high school, enter university, and form families of their own. With regret, we have witnessed the passing of community elders and knowledge holders. The relationships that have been established between members of the Lacandon community and the MAP team go beyond employment and project cooperation to one of close friendship. Each field season brings new opportunities to exchange information. Traditional knowledge is often closely guarded information that is not shared lightly. Earning trust and confidence takes many years of relationship building, sharing and continually seeking informed consent. There is always more to learn in each conversation, which are punctuated with interesting insights on the world, updates on life events, and a sense of humor.

When new researchers join the MAP team, an important step is the introduction to community



Figure 12. Young Lacandon men in a dugout canoe in Lake Najá (courtesy of Alice Balsanelli).

members. The project members share knowledge, facilitate conversations, and provide continuity for the community. For example, last year one of the lakes dried up; therefore, community members have been speaking to us about acquiring information on droughts, climate change, and water resources, which we readily provide. Recent years have also brought new channels of communication that have allowed us to stay in touch and exchange information. Before, community members would travel hours to Palenque to make a phone call. Now, a paved road is traversed in under two hours and many people are connected to the world through satellite internet available in the village.

The project established a laboratory and storage facilities belonging to the community, utilizes a community ecotourism facility as its base of operations, and is supporting the development of a community museum. Community members have become specialists in survey and excavation and in supporting the work of students and researchers. Currently they are helping make things like traditional pottery (as depicted in the paper's *marginaliae*), bows and arrows, cigars, bark beaters, and ceramic incense burners for study and display in the community museum and future culture center (Palka 2020). The Lacandon community is the keyholder of the material culture from excavations and they are proud and protective of their ancestral legacy. After years of close cooperation, living at Mensäbäk, and having the community actively engaged with the MAP team, we remain grateful that they continuously welcome us as we move our collaborations forward.

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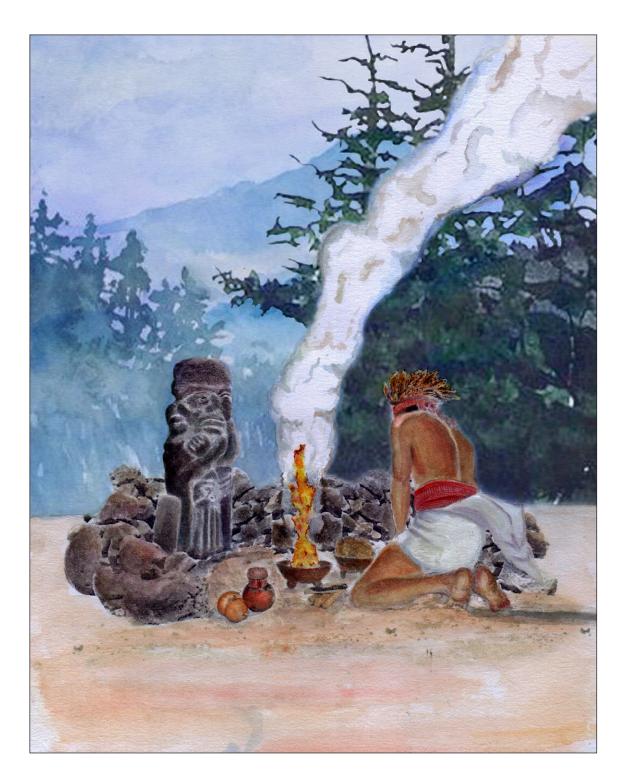
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The Emergence of the Ancient Maya Kaqchikel Polity as Explained through the Dawn Tradition in the Guatemalan Highlands

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The Late Postclassic period (900-1520 CE) in Mesoamerica is characterized by an increased volume of long-distance exchange, new forms of writing and iconography, population growth, and the proliferation of polities (Smith and Berdan 2003). Despite the well-documented multiplication of political units across Mesoamerica, this process is still poorly understood, especially in the Maya highlands of Guatemala where very few ethnohistorical and archaeological projects have been carried out in the last decade. My research on the emergence of the ancient Kaqchikel polity aims to contribute to this topic from a diachronic and interdisciplinary perspective. In this paper, I explore the early history of the Kagchikel polity, which is divided in phases or series of "dawns" called sager/sagarik. Each dawn, according to the Kagchikel documents, represented a phase in their sociopolitical development. The first dawn experienced by the Kagchikel was marked by the beginning of an alliance with the K'iche' and their incorporation into the K'iche' administration as military auxiliaries and dependent allies. In order to improve their sociopolitical and economic status, the Kagchikel and allies made use of various strategies including their specialization in the military field, the establishment of strategic alliances, and marriage arrangements with noblewomen from stronger polities. These strategical practices allowed the Kaqchikel to strengthen their sociopolitical organization and claim from the Kiche' privileges and the right to have their own government and citadel. In ca. 1430 CE, the Kaqchikel government was settled in Chi Awär where the representatives of the four allied confederations— Kagchikel, Tuguche', Sotz'il, and Agajal—lived and exalted their own protector deities. Through my understanding of the dawn tradition and the way the K'iche' and Kaqchikel reenacted it, I reconstructed the early history of the Kaqchikel polity and illustrate the centralization of the Kaqchikel sociopolitical organization and the nucleation of their settlements. Although the Kaqchikel started their government in Chi Awär, it was under K'iche' political influence. It was not until they abandoned Chi Awär and moved to Chi Iximche' that they began an independent polity. It is at this site where the dawn is mentioned for the last time.

Key words: Kaqchikel polity, dawn tradition, resistance, Chi Awär, Chichicastenango



Introduction

The histories of the Postclassic highland peoples of Guatemala have relied on indigenous texts that were written with the Latin alphabet by members of the Maya nobility during the Colonial period (Christenson 2007a:11; Hill II 2012). These documents were a combination of oral tradition and transcriptions of pictorial cartographic documents narrating the history of highland groups. Their history is usually presented as migrations guided by founding fathers with the purpose of finding lands to settle and multiply. According to the Xajil chronicle, the Kaqchikel were initially organized as an amag' or confederation comprised of four chinamit, the Xajil, Q'eqak'uch, B'ak'ajol and Sib'akijay (Maxwell and Hill 2006: 26). The term chinamit has been defined in different ways, such as lineage (De Coto 1983:314; Christenson 2007b; Ximénez 1985:195), as a basic territorial unit (Maxwell and Hill 2006: 4), as a social unit linked to a territory (Carrasco 1982:15; Hill II 1984:316), and as leaders of a third order who performed as intermediaries between the political authorities and local peoples (Jones 2016; Ximénez 1975;79). These definitions suggest that this concept did not have a standardized definition, but it was adapting to new forms of sociopolitical organizations among the Kaqchikel and K'iche' peoples. During their journey, members of this confederation stopped at various places temporarily where they established alliances with other amag', including the Tuquche', Sotz'il and the Aqajal amaq'. The term amaq' appears interchangeably with winäq, which is translated as "human being", but can also be understood as "nation", denoting otherness. These alliances took place when the Kagchikel still lived in darkness.

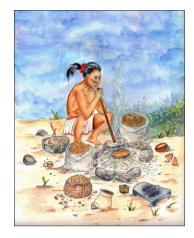
In Kaqchikel documents, the dawn is mentioned several times. For the Xajil, the main *chinamit* of the Kaqchikel *amaq*', they dawned at the following places: Pantzik, Pa Raxone' Yalab'ey Simajijay Pa Sibaqul, Pa Kaweq Kejil; Pan Che', Chi Q'ojom, (Muqb'al sib' and Chuwila'); Chi Awär Tz'upitaq'aj; Nik'aya' and K'otoxul (Maxwell and Hill 2006:150). For the Xpantzay, one *chinamit* of the Sotz'il *amaq*', they dawned at Chi Awär Tz'upitaq'aj, Ismachi'-Chi Q'umarkaj, Pa Xajil Ya', Chan Puak Ayin che', Tun Ab'aj and Chi Iximche' (Recinos 2001:123). These documents written in the Kaqchikel language do not provide dates of their occupation, either indicating what type of places they were or the order of their occupation. Although I know several of these places because I grew up in the highlands where they are located, I did not know what the word *saqer/saqarik* meant for the ancient Kaqchikel and K'iche' peoples. Once I understood this tradition and how it was reenacted, I finally identified the nature of these places. The list of places provided by the Xajil included both *saqarib'al* (i.e., dawning places) and *tinamit* (i.e., citadel), while the Xpantzay documents listed only the names of *tinamit* starting with Chi Awär. Chi Awär was the first Kaqchikel *tinamit* that resulted from the centralization of their government and the nucleation of their settlements.

The first dawn experienced by the Kaqchikel was marked by the beginning of an alliance with the Kaweq *chinamit* of the K'iche' polity. The close interaction between the Kaqchikel leaders and K'iche' rulers from Q'umarkaj, whose genealogy is better known, allowed me to organize the Kaqchikel places where they dawned in a chronological order. In this paper, the dawn tradition will be presented briefly and how it was reenacted by the Kaqchikel and K'iche' peoples. I then will reconstruct the early history of the Kaqchikel by listing and connecting the events that happened in almost all the places where the Kaqchikel dawned.

The Dawn Tradition

The highland peoples of Guatemala, like other Mesoamerican peoples, maintain a consistent tradition of dividing the history of humankind into successive epochs marked by different suns. According to Lopez Lujan and Lopez Austin (1999), the origin myths of all Postclassic Mesoamerican peoples (900-1524 C.E.) share similar structure that can be divided into three phases: *nocturnal*, *auroral*, and *sunrise*. The *nocturnal* phase consists of the creation of humans by the creator deities. During this stage, all human beings were united as one group, spoke the same language and did not yet know their particular protector deities. In the next *auroral* phase, humans left their places of origin (i.e., Chicomoztoc, Seven Caves, Seven Ravines, Tulan, Apoala, or Tamoanchan) in search of their lands. After they witnessed the dawn, they received their protector deities and consequently their different languages, cultural practices, and professions. In the last, *sunrise* phase, the human

groups took possession of the earth, established their settlements and adopted sedentary lifeways. The last two phases—auroral and sunrise—can be likened to the cultural classifications of Chichimecayotl and Toltecáyotl. The Chichimecayotl condition corresponds to nomadic life, where people had no possessions, were ignorant, and lacked knowledge about cultivating maize. This condition changed to Toltecáyotl when they ended their mythical journey, established their settlements, and adopted a sedentary and civilized lifestyle. Therefore, it is during this sunrise phase that lifeways changed from Chichimecayotl to Toltecayotl (López Austin and López Luján 1999:51–78). In summary, the sunrise marks the transition between two sociocultural categories, where people stop living as nomads to become sedentary, and each social group acquired their own identity defined by the acquisition of different languages, protector deities,



and professions. While both the Kaqchikel and the K'iche' followed this tradition, they enacted it within their own cultural parameters. For them, the dawn, also known as the *saqarik/saqer* (i.e., to dawn or to clarify), was connected with ceremonial activities performed before the occupation of new territories and the construction of new settlements. These ceremonies consisted of the placement of four to five foundation altars on hilltops surrounding a new settlement in all four cardinal directions. These altars were called *saqarib'al* (i.e., the dawning place; Carmack and Mondloch 1983:109), but could also have particular names. They were dedicated to the ruling *chinamit* or *amaq*,' and to their protector deities called *K'ab'awil*.

Through the analysis and comparison of documents written in K'iche' and Kaqchikel languages, I organized the list of places mentioned in Xajil and Xpantzay documents chronologically and located the majority of them geographically. Then, I connected the geographical locations with historical events, as each dawn represented a particular stage of Kaqchikel history.

- 1. Pantzik, Pa Raxone', Simajijay, Pasib'agul and Pan Kaweg-Kejil, ca. 1380;
- 2. Panche', Chi Q'ojom, Muqb'al sib', (and Uwila'), ca. 1400;
- 3. Chi Awar, Pa Xajil Ya' (and Q'umarkaj), ca. 1430;
- 4.Chi Iximche', ca. 1470.

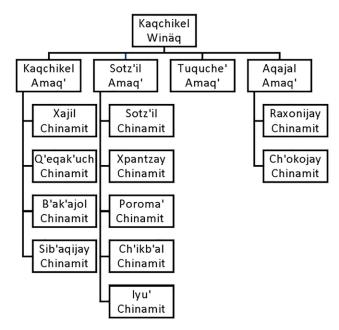


Figure 1. Sociopolitical structure of the Kaqchikel polity.

It is necessary to mention that while there are other sites where the Kaqchikel experienced the dawn when they became a stronger polity, no historical events are connected with them. These may be secondary sites such as Nik'aya' and K'otoxul (according to the Kaqchikel) and Chan Puak Ayin che' and Tun Ab'aj (according to the Sotz'il).

Before the first dawn, while they still lived in darkness, the Kaqchikel were an *amaq'* who began a journey to find new allies. In the middle of the 14th century, the Kaqchikel established alliances with three other confederations: the Tuquche', Sotz'il and two Aqajal *chinamit* (Raxonijay and Ch'okojay) (Figure 1). As the strongest of these four confederations, the Kaqchikel forced the Tuquche' and the ancestor of the ancestors of the Sotz'il to form this alliance (Maxwell and Hill 2006:93). I propose that these two last confederations were settled to the northeast of Lake Atitlan, outside the central highlands. It is very important to mention that even though these four confederations were allies, they still vied for the control of the confederation and for the access to resources. This competition forced them to seek new allies, preferably with stronger polities, not only to avoid future attacks, but also to count on their support to defeat the competition. This was the case of the Kaqchikel, who by the end of the 14th century, established an alliance with the K'iche' polity, specifically with the Kaweq *chinamit*. In this way, the Kaqchikel announced their first dawn.

First Dawn (ca. 1380): Pantzik, Pa Raxone', Simajijay, Pa Sib'aqul, and Pa Kaweq-Kejil

The first dawn experienced by the Kaqchikel was marked by the beginning of an alliance with the K'iche polity around 1380. At this time, the K'iche' was the strongest polity of the highlands and was based in the *tinamit* Q'umarkaj. *Tinamit* is a nahua word derived from *tenamitl* that means

"enclosure" or "fortified town" (Campbell 1983:85). This new alliance was consolidated through marriages between Kaqchikel men and K'iche' women, and to take possession of this territory between the current town of Sololá and Chichicastenango, the Kaqchikel reenacted the dawn. This involved the location of five *saqarib'al* dedicated to the main *chinamit* or *calpul* of the Kaqchikel confederation. The names of these dawning places were Pan Tzik, Pa Raxone', Yalab'ey Simajijay, Pa Sibaqul, and Pa Kaweq-Kejil. I postulate that Pan Tzik was the *saqarib'al* of the Xajil, Paraxone' the *saqarib'al* of the Q'eqak'uch, Yalab'ey Sinajijay the *saqarib'al* of the B'akajol (as identified in the Xajil chronicle; Maxwell and Hill 2006:129), and Sib'aqul the *saqarib'al* of the Sib'aqijay. It is interesting to note that this group of altars also included one—Pa Kaweq-Kejil—dedicated to the Kaweq and the Kejay, the two newly incorporated K'iche' *chinamit*. These altars surrounded a small settlement named *Nimajay* (i.e., the great house) where representatives of the allied *chinamit* lived, but a dispute between the Xajil and the Bak'ajol forced its abandonment. This site has not been identified yet. No document written in the Kaqchikel language mentions any Kaqchikel protector deity during this dawn.

Second Dawn (ca. 1400): Panche', Chi Q'ojom, Muqb'al sib' (and Uwila'/Wila')

After abandoning *Nimajay*, the Kaqchikel and their allies moved north and settled in villages located in the current municipality of Chichicastenango (Figure 2). Although the Aqajal were part of this alliance, they remained autonomous and stayed in their own lands in what is now the San Martin Jilotepeque municipality (Hill 1998). The Kaqchikel confederation settled in Uwila'/Wila' while the Sotz'il and Tuquche established themselves in Pan che', Chi Q'ojom, and Muq'b'al Sib'. These territories are also identified as K'iche' settlements (Carmack and Mondloch 1983:188-189). It is likely that both peoples shared these settlements, producing a bilingual territory

The occupation of this territory coincided with the beginning of the K'iche' expansionist campaigns led by their ruler Q'ukumatz, who ruled ca. 1400-1425. Q'ukumatz demanded that the Kaqchikel and their allies join his military forces to conquer new towns and territories. The Sotz'il, who lived in Muqb'al sib', described in their documents that Q'ukumatz asked them to "take arrows and shield" and fight against the K'iche's vassals and enemies, starting with those from Koja'. The Sotz'il and their allies immediately refused because they had no weapons and they were certain that they would die as they did not know how to fight. After Q'ukumatz ordered them to go for the second time, the Sotz'il, along with the Kaqchikel and Tuquche' reluctantly left (Recinos 2001:137). This situation coincides with what the Catholic priest Francisco Ximénez (1965) recorded about the military strategies of the K'iche'. Ximénez (1965:47) wrote that the K'iche' coerced other confederations into alliances in order to overtake lands from their neighbors and that those who dared to oppose them were enslaved and sacrificed in front of their gods, and that if they refused to pay taxes, the sum of their debt was multiplied. Ximénez (1999) also wrote that, during his rulership, Q'ukumatz delimited the borders of his territories and protected them by installing garrison sites occupied by warriors and military leaders. Their main function was to alert K'iche' rulers of enemy incursions and to gather military forces in times of war (Ximénez 1999:132). Each confederation of the K'iche' polity had a group of garrison sites called the o(x) lajuj/(j)olajuj calpuls (i.e., the thirteen/fifteen calpuls; Recinos 2001:54). The inhabitants of these garrison sites were named the

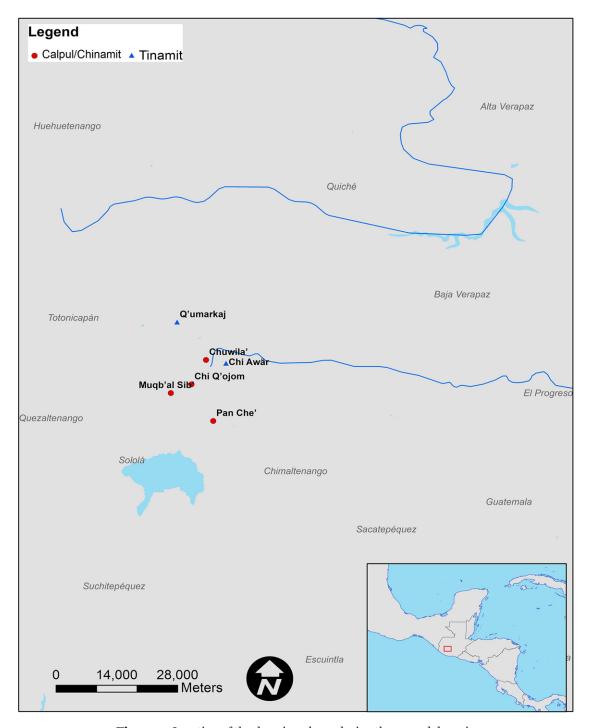
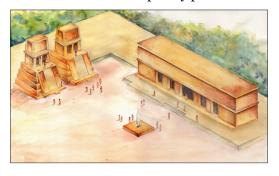


Figure 2. Location of the dawning places during the second dawn in

aj b'anob'al lab'al (i.e., the performers of warfare; Carmack and Mondloch 2009:54), the *chajal juyub'*, *chajal ch'a*, *chajal k'am*, *chajal lab'al* (i.e., the guardians of mountains, the guardians of arrows and rope, and the guardians of warfare; Colop 1999:187). As the K'iche' expanded territorially, the number of *calpuls* also increased. The K'iche' Popol Wuj document lists their principal division of warriors: the aj Wila', aj Chulimal, aj Xajb'akyej, aj Chitemaj, aj Wajxalajuj, aj Kab'raqan, aj Ch'ab'iq'aq', chi Junajpu, aj Xayab'aj, aj Saqakab'aja', aj Siyaja', aj Miq'ina', and aj Xelajuj (Colop 1999:187,188). This list also included the Aj Wila' (i.e., those from Wila') referring to Uwila' or Wila', the Kaqchikel's settlement during the second dawn. The Popol Wuj also mentioned that, in the past, Uwila' was the territory of the Kaqchikeleb' (Colop 1999:185). Although the K'iche' documents do not indicate explicitly that the Kaqchikel aided the K'iche' in the conquest of new towns, their collaboration is inferred by the Kaqchikel occupation of the Uwila'/Wila' *calpul*. In addition, the Kaqchikel claimed to be part of the *Oxlajuj Ch'ob' Ajilab'al* (i.e., the 13 divisions of warriors; Otzov 1999), who were at the service of the K'iche'.

The K'iche' reinforced their authority over these garrison sites by sending K'iche' captains to lead these small settlements and by imposing several rules. Some of the rules explicitly prohibited

the veneration of non-K'iche' deities, rule without the K'iche' elite's assent, and prohibited reenacting the dawn due to its political implications (Colop 2008:202-203; Ximénez 1965:48–50). Despites these rules, the Kaqchikel claimed that they experienced the dawn on multiple occasions, yet were not able to venerate their own protector deities, which were manifestations of autonomy and power. During the reign of Q'ukumatz, the K'iche' and the Kaqchikel conquered several towns and territories in the north-



eastern Guatemalan highlands. While the power of the Kaqchikel and their allies was curtailed under the rulership of Q'ukumatz, their situation improved with the next K'iche' government led by K'iq'ab' (ca. 1425-1475). K'iq'ab, unlike Q'ukumatz, made more efforts to reward the support provided by the Kaqchikel, considering that his own people were sometimes reluctant to fight. The success reached by the K'iche' under K'iq'ab's rulership positively impacted Kaqchikel lives, since their status and political position in the highlands improved. One notable change was that K'iq'ab' authorized the leaders of the Kaqchikel confederation and their allies to have their own government and citadel (Otzoy 1999:173).

Third Dawn (ca. 1430): Chi Awär, Pa Xajil Ya', Chi Q'umarkaj

Around 1430, the elite Kaqchikel founded their own citadel, Chi Awär. This settlement is located on a small plateau surrounded by deep ravines in the current village of Chontala, 5 km east of the urban area of Chichicastenango (Figure 2 and 3). This citadel is now called *Patz'aq* (i.e., the walled place). The site was designed as a stronghold; it was protected by two deep pits at the south entrance and was surrounded by a bulwark (Fox 1978:189). The site has three principal plazas where the representatives of the Kaqchikel, Sotz'il, Tuquche' *amaq*' and some Aqajal *chinamit* lived



Figure 3. Map of Chi Awär or Patz'aq (modified from Fox, 1978: 189)

(Figure 3). Unlike the Kaqchikel, members of the Sotz'il confederation mention Chi Awär as the first place where they experienced the dawn (Recinos 2001:123). This statement is understandable since Chi Awär's occupation allowed them to finally have their own government and follow their own protector deities. The Kaqchikel, as a polity or nation, exalted a common protector deity named Chamalakan, who is represented as a bat (Colop 2008:147–148).

Although the Kaqchikel started their own government in Chi Awär, they were still under the political and cultural influence of the K'iche'. Excavations in three areas of this site and their associated ceramic analyses indicate that Chi Awär was a Late Postclassic site and that its occupation was short (Figure 4). Burial 1 from Chi Awär indicates a strong interaction with Q'umarkaj since this burial contains red monochrome jars with decorations similar to K'iche' vessels excavated in Q'umarkaj. One jar displays an anthropomorphic feline in a squatting position blowing a tube (Cojti Ren 2019) (Figure 5). This is similar to two jars from Q'umarkaj (Figure 6), whose imagery is associated with the practice of metallurgy (Weeks et al. 1977). At both Chi Awär (Gruhn 1973:233) and Q'umarkaj (Babcock 2012; Weeks et al. 1977), copper and gold ornaments have been found (Figure



Figure 4. Ceramic sherds from the Fortress White-on-Red type; a type diagnostic of the Late Postclassic Period.



Figure 5. Red monochrome jar from burial 1, Chi Awär (courtesy of the Chi Awär Archaeological Project).

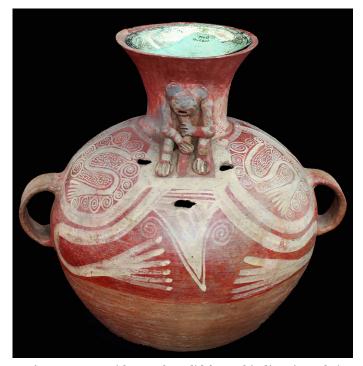


Figure 6. Urn with a tumbaga lid from Chisalín, Q'umarkaj (courtesy of Dirección General del Patrimonio Cultural y Natural de Guatemala y Museo Nacional de Arqueología y Etnología).

7), indicating that the Kaqchikel also had access to prestigious resources. Archaeological evidence also suggest that members of the Kaqchikel polity lived in Q'umarkaj (Weeks 1980), which coincides with the Sotz'il's statement that they also dawned in this settlement (Recinos 2001:123). The site Pa Xajil Ya' could be the Cantón Río Xajil, which is to the west of Chi Awär.

The K'iche' influence over Chi Awär is also inferred by the existence of double and twin temples in the principal plazas (Figure 8). According to Florence Sloane (n.d.), the K'iche' hegemony over several sites involved the adoption of the cult of Tojil, who was the supreme protector deity of the K'iche', along with the local deity. This duality of protector deities was reflected in the appearance of double or twin temples in the main plazas of Late Postclassic citadels. I agree with Sloane's hypothesis, because the sites where the Kagchikel dawned for the first time included altars dedicated to the Kaweg and the Kejay, K'iche' chinamits. Yet, further investigation is needed to confirm this hypothesis.



Figure 7. Copper ornament from Chi Awär (courtesy of the Chi Awär Archaeological Project).

The occupation of Chi Awär was short because an internal revolt erupted at Q'umarkaj against the ruler K'iq'ab' and his closest allies, which included the Kaqchikel. K'iq'ab's sons and K'iche' warriors instigated the revolt as they desired their father's resources and his Nima'q Achi'. The Nima'q Achi' were captives of war, some with high status, who settled in Q'umarkaj as vassals and sustained the K'iche' rulers through the payment of taxes and services (Carmack 2001). The divisions of warriors who participated in the revolt were clearly angered because they were not appropriately rewarded after supporting K'iche' expansionist campaigns. Despite the fact that the Kaqchikel belonged to this warrior division, they were seemingly able to demand and obtain privileges for their services. Certain sectors of the K'iche' polity also witnessed how the Kaqchikel gained more power and saw them as potentially dangerous rivals.

Fourth Dawn (ca. 1470): Chi Iximche

In ca. 1470, the elite members of the Kaqchikel people and one sector of their population abandoned the territories of Chichicastenango and Q'umarkaj to settle in Chi Iximche' (62 km to the south). I propose that the rest of the Kaqchikel population stayed either because they belonged to the K'iche' *calpuls*, or because they were bound to do so since they had contracted marriages with K'iche' people. I also propose that the population that lived in the Chichicastenango territory during



Figure 8. One of the twin temples excavated in Chi Awar (courtesy of the Chi Awar Archaeological Project).

the Late Postclassic period was bilingual, which allowed the transference of elements between the two related K'iche'an languages, Kaqchikel and K'iche'. In a stable bilingual context, linguistic elements will transfer from one language to the other and both are mutually influenced (Winford 2005). It is important to note that all of the Eastern Maya languages, including K'iche' and 13 other languages, use long and short vowels (i.e., a, aa, e, ee, i, ii, o, oo, u, uu), with the exception of the Kaqchikel language and the K'iche' dialect of Chichicastenango, which make use of tense and lax vowels (i.e., a, ä, e, ë, i, ï, o, ö, u, ü; Can Pixabaj 2017; Par Sapón and Can Pixabaj 2000).

This vowel system is predominantly found in Sololá and Sacatepéquez (Patal Majzul et al. 2000:169), while other Kaqchikel towns present other variations. Scholars propose that the change in the vocalic system in Chichicastenango resulted from the contact with Kaqchikel people (Ixcoy and Dominga 1994; Par Sapón and Can Pixabaj 2000). I will be more specific by saying that this change occurred when the Kaqchikel spoke K'iche' during their occupation of Chichicastenango during the three dawns. According to Donald Winford, in regards to language contact, lexicons are the easiest to borrow but are less likely to have a long-term effect on the language, while the phonological changes are more stable and occur when the source language is the dominant language of the speaker, from which material is transferred into a recipient language in which the speaker is less proficient (Winford 2005:376-377). In this case, some material transferred from the source language (Kaqchikel) to the recipient language (K'iche'), were the lax and tense vowels, which are still exclusively used by the Chichicastenango K'iche' people. Sankoff (2001) argues that in the context of stable-bilingualism, the transferred elements may be retained through several generations of speakers. At the beginning of the Colonial period, the town of Chichicastenango was founded as a Reducción of several *capuls* in the middle of the 16th century (Cabezas 1974:25). The Spanish administration of this town pushed toward the conversion of this bilingual territory into a monolingual municipality with K'iche' as the predominant language. The loss of linguistic diversity after the Reducciones was a common result of the implementation of this colonial institution (Richards and Macario 2003:23). The fact that this K'iche' dialect with lax and tense vowels is only spoken within the borders of the Chichicastenango municipality suggests that this colonial institution was involved in its monolinguism and that this dialect can be seen as evidence that, in the past, this territory was occupied by both K'iche' and Kaqchikel people.

Conclusion

The dawn tradition described in indigenous documents marked the beginning of new stages in the history and cultural development of the Kaqchikel polity. Each dawn episode was linked not only to the possession of new territories, but also to the consolidation of new forms of social organizations that resulted from new alliances. The occupation of new territories involved the location of sagarib'al and the construction of a nimajay where leaders of allied chinamit would live. More complex alliances between amag' resulted in the construction of a Tinamit, which can include several nimajay. The first Kaqchikel tinamit was Chi Awar, where representatives of the Kaqchikel, Sotz'il, Tuquche' and Aqajal ruled. According to the Xajil, the K'iche' granted the Kagchikel the right to have their own government and tinamit, however this site still was under the K'iche' cultural and political influence. It was not until the Kaqchikel abandoned the current territory of Chichicastenango and moved to Chi Iximche', that they were totally independent. The Kagchikel polity expanded to the central highlands and the Pacific coast, where they fought with the local peoples including the Tz'utujil and the Pipil. However, in ca. 1493, an internal revolt occurred in Chi Iximche' following a territorial dispute between the Agajal and the Tuquche', forcing the latter to abandon their settlement. This case study reveals that the four amag' of the Kagchikel polity remained united in order to resist K'iche' hegemony and to negotiate privileges. However, once the threat was eliminated, the Kaqchikel unity was at stake because of the internal competition among its confederations. Future archaeological research in the highlands is needed to corroborate this information and to know about Kaqchikel's material culture before the occupation of Chi Awär and Chi Iximche'.

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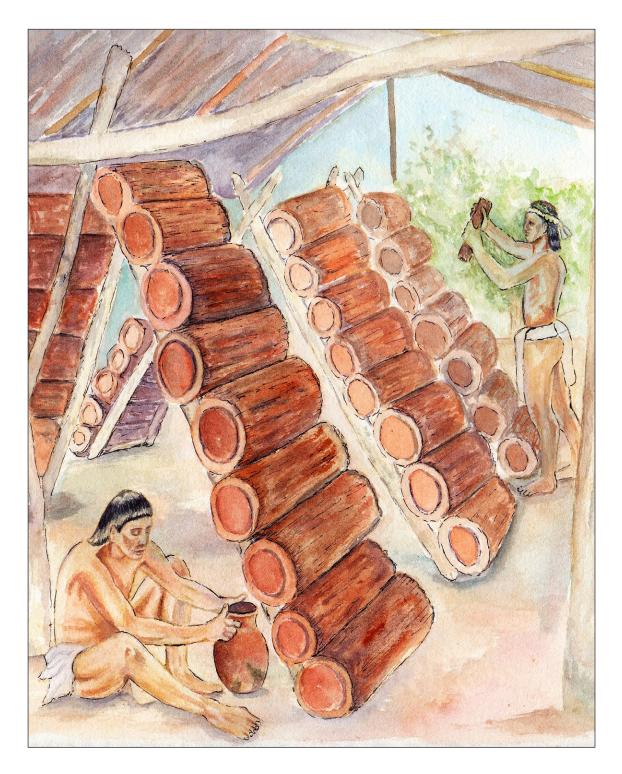
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The Archaeology of Intensive Beekeeping in Postclassic Yucatán

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The long existence of beekeeping practices in Prehispanic Yucatán has been reported by a number of Maya scholars exploring the archaeological evidence of this activity from Preclassic to Postclassic times (for recent examples, see Batún Alpuche 2009; Bianco 2014; Dedrik et al. 2017; Źrałka et al. 2018). Likewise, several Europeans described in 16th century accounts the taming of native bees and the production of honey and wax by skillful Maya beekeepers (De Landa 1966; Diaz del Castillo 1958; Fernandez de Oviedo 1853). This paper presents a summary of ancient Maya beekeeping, focusing on the evidence indicating that Postclassic (900-1518 C.E.) Maya beekeeping was not only a domestic practice, but a large-scale, organized activity. Following my research on the Island of Cozumel and other archaeological reports from the Yucatán east coast across from the island, I present evidence for a massive masonry system of land management primarily focused on beekeeping.

Key words: Maya beekeeping, Postclassic Maya, Yucatán East Coast, Maya Archaeology, Cozumel



The importance of stingless beekeeping in the Yucatán peninsula has been studied by ethnohistorians and ethnographers who provide us with enough published data to evaluate changes and continuity in this practice from contact times to present days. Early accounts noting the importance of beekeeping in Yucatán include Diego de Landa (Tozzer 1941: 193-194), Alonzo de Avila (Fernández de Oviedo 1853: T-III: 245-246), Ciudad Real (1976: T-II: 318-319), and Cogolludo (1957:173) among others. In addition, modern compilations of this practice have been done by Redfield and Villa Rojas (1934: 48-50, 116-117, 144-147), Villa Rojas (1945:57-58, 117), Poot and Bocara (1980:2-24), Weaver and Weaver (1981:7-19), Teran and Rasmussen, (1994:73-75, 265-274), Mayer (2009) and Brunius (1995:5-30). Also, detailed overviews on Prehispanic Maya bee-

keeping have been compiled by Crane (1999), Imre et.al. (2010) and Paris et.al. (2018).

The Late Postclassic (1250-1450 C.E.) Madrid Codex, of probable east coast Yucatec origin (Bricker and Vail 1997; Sharer 1995:603, Vail and Aveni 2004), depicts beekeeping activities and associated ceremonies (Ciaramella 2002:1-68; Cordan 1966; Vail 1994:37-68), indicating the importance of this industry long before the Spanish invasion. Yet, archaeological investigations have done little to clarify the nature and extent of beekeeping activities among the Prehispanic Maya.

In this paper, I first summarize archaeological findings from the Island of Cozumel and from the Yucatán east coast which indicate the practice of beekeeping in a variety of architectural structures. I then present the description and distribution of structures discovered at the site of Buena

Vista, on southern Cozumel, and how these are related to a functionally unexplained system of stone walls (i.e., *albarradas*) previously reported at many sites on Cozumel and the Yucatán east coast (Batún-Alpuche 2009; Freidel and Leventhal 1975; Garber 1981; Goñi 1998; Perez 1994; Terrones 1994). Finally, I present ecological characteristics of Yucatán stingless bees and ecological factors considered by modern Maya beekeepers in establishing their apiaries. Ancient management of the different bee species and of the Yucatán environment provide a plausible explanation for the function of the albarrada network on Cozumel and for the different types of reported beekeeping structures.

First Encounter

The massive Island of Cozumel is situated 16 km off the northeastern coast of the Yucatán Peninsula. The domestication of bees to obtain honey and wax practiced on Cozumel in the 16th century amazed early Europeans visitors, who documented extensive beekeeping practices (Juan Diaz in Garcia Icazbalceta 1980:286; Gomara 1985:31-32; Las Casas in Wagner 1942:50). Cozumel's importance as a beekeeping center is also mentioned in the Chilam Balam de Chumayel, which refers to Cozumel as the "first Apiary" (Mediz Bolio 1973:5). In addition, the 1582 town list of Yucatán mentions the existence of two main towns on the island – San Miguel Xamancab and Santa Maria Oycib – both of which bore their Maya toponyms after their new Spanish names. Xamancab could be translated as "the northern honey/bee", whereas Oycib means "bee wax", with both names clearly implying the importance of bees on the island.

Archaeological Evidence

One of the first systematic archaeological projects conducted in Quintana Roo, Mexico, and the first of this type on Cozumel, was directed by William Rathje and Jeremy Sabloff from 1972 to 1973 (Freidel and Sabloff 1984; Rathje and Sabloff 1973; Sabloff and Rathje 1975). Among the strangest objects found at every Cozumel site explored by this project were 255 limestone and coral disks ranging from 10-15 cm in diameter, which were mainly found at surface level inside circular stone structures ranging from 5-15 m in diameter (Freidel and Leventhal 1975:69). A detailed analysis of these artifacts by Wallace (1978) interpreted these disks as stone plugs used in hollow logs functioning as bee hives similar to those described in ethnographic and historical accounts of beekeeping in Yucatán (Freidel and Sabloff 1984:33-34; Wallace 197; Figures 1 and 2).

Since Wallace's report, later archaeological research on the east coast has reported more of these stone disks, but in association with a variety of structures. In order to illustrate the range of these purported apiaries, I summarize relevant data from projects led at Cozumel, Punta Piedra, Xamanha, Cerros, and Chan Chen.

The Island of Cozumel

Occupation on the island has been dated as beginning in the Early Classic (300/400-600 C.E.; phases known as Litoral Cochuah and Peten Provincial) with a constant development during the Late Classic (600-900 C.E.; phases known as Ribera Cehpech and San Gervasio) and Early Postclassic (900-1200 C.E.; phases known as Arrecife-Sotuta-Hocaba and Chichen Provincial), and an apogee during the Late Postclassic (1200-1650 C.E.; phases known as Costa-Tases and Costa Oriental Cozumel; Peraza 1993; Vargas 1992). Of the aforementioned 255 Cozumel stone disks, 63% were collected at two sites: Aguada Grande (n=73) on the northern side of the island and Buena Vista (n=87) on the southern side. Stone disks were principally found at surface level inside dry-laid masonry, walled circular structures, of a maximum observed height of 1.5 m. These structures were composed of inner and outer retaining, 1 m-thick walls built with roughly shaped limestone blocks and a core of rubble and gravel, directly on the bedrock (Freidel and Leventhal 1975:69). In some cases, they were observed to have a low parapet running around the outside, about 0.5 m above ground level (Freidel and Sabloff 1984:33). These circular structures were found isolated or in groups of two or three, sometimes next to other structures like rectangular platforms, half circles, straight walls, and cenotes. In addition, some of these circular structures featured an altar-like platform in their center (Freidel and Leventhal 1975:69), and sometimes associated straight walls with niches. Notably, a sizeable sample of Postclassic censer sherds was collected near one of these niches from Aguada Grande (Freidel and Sabloff, 1984:33).

During the 1980-1981 archaeological work conducted on Cozumel by INAH (Instituto Nacional de Antropología e Historia), under the direction of Fernando Robles (Robles et al. 1986a, 1986b), similar circular structures were found in San Gervasio. These circular structures were in average 2 m-wide and were subdivided into four types: a) circular hollow enclosed; b) circular hollow with open entrance; c) circular hollow with adjacent small room; and d) circular enclosed with central altar (Sierra 1991:110-115); (Figure 3).



Figure 1. Contemporary Yucatec Apiary of stingless Melipona bee, showing the use of stone disks plugging tree log hives (photo by the author).

Rancho Ina and Punta Piedra

Both Rancho Ina and Punta Piedra are located on the east coast of Yucatán across from Cozumel and their major period of occupation is dated to the Late Postclassic. As part of a long INAH project (1981-1985 and 1987-1991), archaeological work at these two sites was reported by Enrique Terrones (1990, 1994), who documented finding stone disks in association with non-circular structures. These structures consist of stone alignments (i.e., dry-masonry walls) of ca. 1-1.2 m in width, 1 m in height, and 3-20 m in length, and are sometimes shaped like of squares open on one side. These structures lie directly on the bedrock and were never found atop platforms; they are sometimes associated with domestic platforms and cenotes, and are either located inside walled lots or form part of the boundary lots. In addition, Terrones (1994:53-55) reported finding a considerable number of stone disks in his excavations conducted on the great wall of Tulum.

Xamanha (Playa del Carmen)

Xamanha is located on the east coast of Yucatán, north of Punta Piedra. Xamanha was heavily populated during the Early Classic, but suffered a decline in population during the Late Classic and Early Postclassic, only to reach its maximum occupation during the Late Postclassic (Perez 1994:19, 211-213). INAH conducted archaeological research there from 1985 to 1987, directed by Carlos Silva R., and from 1991 to 1992, directed by Concepción Hernandez, producing a complete

site map and a great sample of excavated structures. The site's Group R and Group S, located 1 km inland, were both reported to feature Cozumel-style circular structures (Structures R-3 and S-2). Structure R-3 has a diameter of 7 m and is adjacent to a 10 m-long albarrada, whereas Structure S-2 has a diameter of 6 m and is adjacent to a 14 m-long albarrada (Silva and Hernandez 1991:73-74). Further excavation in Group R showed that it was actually composed of two wall-enclosed lots, one containing the isolated Structure R-3 and the other containing four structures: a stone circle of ca. 5.5 m in diameter, a rectangular platform measuring ca. 8 x 5 m, and two linear walls (similar to those reported by Terrones) of ca. 8 m and 9 m in length. Excavation in all these structures yielded an important concentration of over 200 stone disks (Perez 1994: fig 67; also see Goñi 1998).

Chan Chen and Cerros

Chan Chen is a minor center located 7 km northwest of Corozal and Cerros is located on the southern shore of the Corozal Bay (both sites are located in Northern Belize). Chan Chen was mapped and excavated by Raymond Sidrys (1983) in 1974, whereas Cerros was excavated by David Freidel (1977, 1979) from 1974 to 1979. Stone disks were reported at both sites. At Cerros, 101 burned disks were found in association with the vestiges of a Late Preclassic (300 B.C.E. - 300 C.E.) termination ritual – i.e., a ceremonial setting – which means they were not found in a utilitarian context (Garber 1981:67-68).

At Chan Chen, excavations in two structures from Group F revealed a good number of stone disks (Sidrys 1983:92-106). The first is Structure F-4, a 1 m-tall, 7 x 10 m rectangular platform located in the center of Group F. Excavations in Structure F-4 uncovered 33 limestone disks at 25-45 cm below surface, above a sealed thick plaza floor associated with Early Classic and Late Preclassic material. Interestingly, several Late Postclassic censer sherds of a possible representation of the



Figure 2. Archaeological Stone disks found in Buena Vista, Cozumel (photo by the author)4



Figure 3. Prehispanic circular apiary found in Buena Vista, Cozumel (photo by the author).

Bee God Ah Mucencab (a.k.a. the diving god) were found on the surface directly above these stone disks (Sidrys 1983:250). A second deposit of two stone disks in association with more Ah Mucencab censer sherds was found in a small Late Postclassic shrine located in the northwest section of Group F. This shrine was a 1.5 x 1.2 m rectangular structure formed by 28-cm tall limestone blocks. In addition to the stone-disks, a cache consisting of a large tulip shell (*Fasciolaria tulipa*) and a barrel-shaped jade bead (2.2 cm in length, 1.4 cm in diameter) was found in this shrine, next to both its interior southern wall and a barrel-shaped stone (31 cm in height, 18-21 cm in diameter).

Buena Vista Cozumel

The site of Buena Vista is located 1.5 km inland from the southeastern coast of Cozumel (Figure 4). During my doctoral dissertation work, I directed an archaeological team which surveyed and mapped a 5 km² area surrounding the site core of Buena Vista. This survey identified a mosaic of micro-environmental zones related to the island's variable karstic topography and a large network of albarradas and circular structures.

The albarradas and circular structures in Buena Vista are not homogeneous. Interestingly, there are direct correlations between the different forms and construction techniques of these architectural features and the microenvironmental zones where they were built. Albarradas were probably used in the site not solely as property boundaries but also to enhance soil properties and to plant selected species. The circular structures present a variety of sizes and characteristics indicating different functions, also in direct relation with their micro-environmental context (Batún-Alpuche 2003, 2009). Below, I present formal and contextual evidence indicating that the Buena Vista circular and linear stone structures were Prehispanic apiaries.

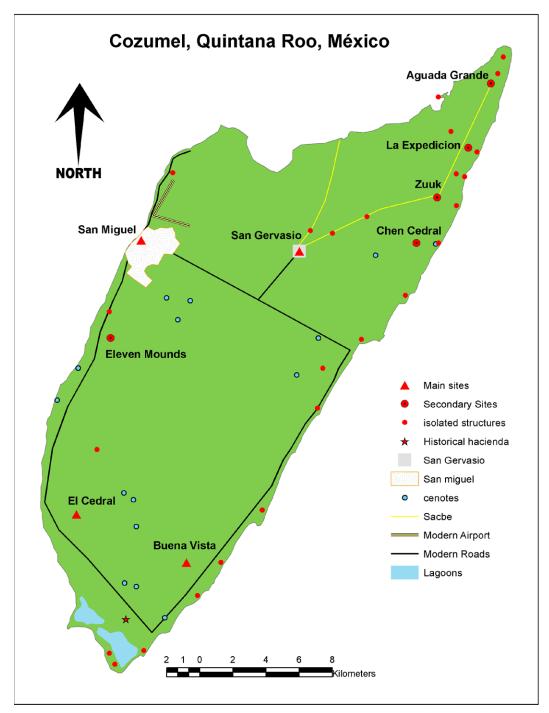


Figure 4. Map of the island Of Cozumel showing archeological sites (map by the author).

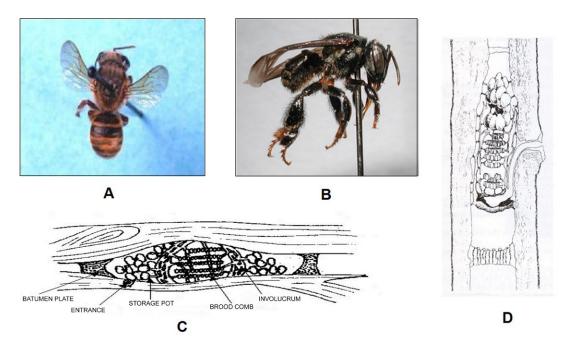


Figure 5. Two Yucatan Stingless Bee Species and their Nest Characteristics: A) Scaptotrigona, B) Melipona Beecheii, C) Melipona Beecheii Nest, D) Scaptotrigona Nest (illustration by the author).

- 1) Circular Apiaries. Circular apiaries correspond to the types described above for San Gervasio (Sierra 1991:110-115), but found in a greater quantity. Seven of these structures circular hollow enclosed were identified in the site-core, all of which were built adjacent to albarradas. Outside of the site-core, clusters of four to seven similar structures were found near cenotes. Some of these presented vestiges of an altar-like feature in their center that seems to have been covered with stucco and one or two barrel-shape stones like the one found at the Chan Chen shrine (Sidrys 1983:104).
- 2) Half Circles. Half circles are similar to structures from Punta Piedra and Rancho Inah described above (Terrones 1994:53), with the difference that the Buena Vista structures have rounded corners, and that sometimes a dry-masonry wall fronts the open side of the circle. One of these half circles was also attached to a large platform.
- *3) Niched Walls.* Niched walls are sections of dry-laid stone walls measuring in average 1.5-2.0 m in width and 1.0-1.5 in height. Some sections of these walls also feature parapets of ca. 1 m in height and in width, which have been interpreted as walking spaces, or *andadores*. Some of these walls feature square, ca. 1 m-wide niches built with stone boulders and slabs. There is no indication for the use of these niches as burials, crypts, or altars; hence, these niches have tentatively been interpreted as beehive shelters.

Most of the structures mentioned above are distributed along a line of ridges running northeast-southwest along the island, following the coast line, and located 1.5 km inland at an elevation of roughly of 10-15 m above sea level.

Stingless Bees in the Yucatán Peninsula

Meliponini and Trigonini (family *Apidae*, subfamily *Meliponinae*) are the principal species of stingless bees domesticated in Mesoamerica. A recent study in central Quintana Roo reported the presence of two species of Meliponini including Melipona beecheii (*Colelcab* or *Xunancab* [lady bee], or *Abeja Real*), and thirteen species of **Trigonini** including the following 7 genera: *Trigona*, *Scaptotrigona*, *Nannotrigona*, *Partamona*, *Lestrimelitta*, *Trigonisca* and *Plebia* (Roubik et al. 1990, Roubik, 1992), with *Trigona* of the subgenera *fulviventris* and *Fuscipennis* as the most abundant in the area (Roubik 1992; Roubik et al. 1990, cited in Cairns 2002:17).

Meliponini, the traditional Yucatán tribe of stingless bees, are kept in hollow log hives piled horizontally inside an open-wall bee house, as described in the colonial reports and ethnographies cited above. On the other hand, Trigonas species have been described as wild bees tamed occasionally in hollow logs hanging under the palm leaf eaves of houses in Chan Kom (Redfield and Villa Rojas 1934:49). Another Trigonini genus present in Yucatán is the Scaptotrigona, for which we have no early local descriptions of domestication. Trigonini was, however, intensively domesticated in highland Mexico, but always in hives positioned vertically. In her work in eastern Quintana Roo, Cairns (2002:36) found Scaptotrigona as one of the domesticated bee species still kept in hollow logs by traditional Maya beekeepers.

The difference in hive position for keeping these species has an ecological explanation: Meliponas and Scaptotrigonas build differently shaped nests – whereas Meliponas build horizontal nests, Scaptotrigonas build vertical ones. This difference is explained as an evolutionary adaptation of Scaptotrigonas to cooler latitudes: whereas Meliponas are better adapted and only inhabit tropical climates, Trigonas are found in both tropical and colder climates (Crane 1983:115-116).

Villa Rojas (1945:58) makes note of the possible domestication of these two species in Yucatán using the same type of hollow logs placed in different positions: "[...] certain varieties of wild bees [...] are raised in separate hives and provide honey of good quality. The hives of these wild bees are kept in a vertical position and those of the others (Meliponas) in a horizontal position..." (Villa Rojas 1945:58; Figure 5).

Forest Management and Tolche Bee Gardens

The management of forests by selection of useful species, elimination of others, introduction of useful species from other areas, and protection of the forest from fire and destructive uses is a common practice among modern Maya peasants, and is known in Yucatec Mayan as the *tolche* system (Flores and Ek 1983). As a primary characteristic, *tolche* assign Maya names to different sizes and forms of forested belts surrounding the *milpa* (agricultural fields) or to the different stages of forest regeneration elsewhere (Gomez-Pompa 1991:338).

Gomez-Pompa and colleagues (1987) interviewed contemporary Maya peasants about the albarradas crosscutting the eastern Yucatán forest and found that they knew these albarradas as *pet kots*; where *pet* refers to "a space in the milpa where other crops are planted" and *kot* means "albarrada". The researchers were told that these areas were made by their ancestors for the protection and cultivation of useful trees (Gomez-Pompa et al. 1987:10).

Recent studies on the Yucatán phenology (i.e., plants flowering cycle) and its relation with

beekeeping and the honey production cycle (Chemas and Rico 1991; Porter, 2001; also see Ewell and Merrill-Sands 1987:95-129 for the milpa-beekeeping relation), showed that Maya beekeepers have a specialized knowledge of the local phenology and seek to either locate their apiaries near selected plant species or to plant honey-flowering species near their apiaries. When modern beekeepers select appropriate places for new apiaries, the following ecological factors are deemed crucial: a) the active radius of bees (500-600 m for stingless bees), whereas there should be no other apiary in this radius; b) year-round flowering, whereas a mixture of stages of forest regeneration is ideal because different species flower at different times of the year; c) a permanent water source; and d) the area surrounding the apiary should not be heavily bushed nor yield thick trunks, because the queen could crash and die during the nuptial flight (Chemas and Rico 1991).

The Intensity of Beekeeping

This review of the archaeological data on architectural structures associated with stone disks indicative of beekeeping activities shows that a variety of buildings were used by Prehispanic Maya beekeepers. Although tentatively, all these structures have been identified as apiaries, with distinct shapes and associated features and artifacts pointing to specialized uses. These were probably related to the domestication of different bee species and/or other practices associated with beekeeping, such as beekeeping ceremonies, storage for bee products, workshops for the manufacture of stone disks, or family dwellings where a reduced number of beehives were kept hanging at the house eaves.

At Buena Vista, buildings with half-circular (i.e., half circles) and hollow circular architectural plans (i.e., circular apiaries) can be proposed as *bee houses*, where log beehives were kept. Circles with central shrines could be interpreted as special bee houses where offerings and bee ceremonies were performed. The presence of censer shrines in one of these buildings excavated in Aguada Grande, along with the Ah Mucencab fragments and barrel-shaped stones found in a similar altar in Chan Chen, contribute to this interpretation. In addition, the only complete censer representing Ah Mucencab, the Maya Bee God, was found on Cozumel (depicted on the nearby marginalia), providing more evidence for the location on the island of designated places of worship for this god.

Although there are fewer excavation data to prove their function, niched walls are here proposed as "bee bole walls." Bee boles is a term for similar niches built into thick walls used to shelter beehives in some European countries, with uses also documented in Africa and the Near East (Crane 1983:117-162). While further excavations are necessary to clarify this, this interpretation provides a reasonable explanation for both the strange, unnecessary width of some field wall segments at Buena Vista and for the stone disks found along Tulum's great wall. It is possible that most of the thick walls on Cozumel and at other sites had such recesses. In fact, the disorderedly collapse of these walls may have been caused in part by the presence of these niches, making their identification difficult. Meanwhile, the lack of interest of early projects to excavate theses thick walls found in other sites left us no comparative data to evaluate this possibility. This hypothesis is supported by the fact that some niches in walls associated with, or forming circular structures were reported by the 1972-73 expedition (Freidel and Sabloff 1984:33).

Landscape analysis of the location and distribution of beekeeping structures in Buena Vista

resulted in the discovery of a marked preference to locate apiaries in a land belt located 1-1.5 km inland above a ridge system extending northeast and southwest of the mapped area. Clusters of beekeeping structures are distributed at an average distance of 500 m and are surrounded by or form part of the albarrada system dividing the area in unevenly distributed plots ranging from 400-10,000 m².

Given the cluster patterns of beekeeping structures surrounded by albarradas at Buena Vista, I suggest that these lots worked as the *pet kots* described by Gomez-Pompa and colleagues (1987).

These could have been used to cultivate maize milpas for 2-3 year periods and flowering species during fallow periods. Milpa rotations in different lots around apiaries left fallow lots at different stages of regeneration, following the tolche system, and provided bees with different flowering species year round. In addition, the proximity of regenerated forest to new fallow lots facilitated the pollination and regrowth of flowering plants within new fallow lots. Maize cultivation near apiaries is also important for beekeeping cycles since, right after the dry season, during the first rains when flowering species are scarce, pollen from tasseling maize is the primary stimulus for renewed colony development (Ewell and Merrill-Sands 1987:95-129). In sum, pet kots surrounding beekeeping structures probably worked in the past just as the modern tolche system does today. Buena Vista was probably located in the heart of the Bee Gardens of the Cozumel Mayas, a fact which is highlighted by the Prehispanic Maya names of the island's towns reported in 1570 – Xamancab to the north (i.e., "the north bee/ honey") and Oycib to the south (i.e., "bee wax").



During the 1972-73 expedition, low altitude flights above Cozumel led archaeologists to distinguish the locations of its albarrada network. Walls were reported as covering most of the island's surface, except for the deep lagoons at the northern and southern ends, a zone extending 100-200 m along the coast, and a 2 km-wide region of extremely rough and rocky terrain between El Cedral and Buena Vista (Freidel and Sabloff 1984:86-87).

The island-wide albarrada network and masonry features imply a great amount of organized labor employed to build an extensive and intensive agrarian production system which remains poorly understood. In addition, sites interspersed over hundreds of km along the Yucatán east coast, across from Cozumel, display the same characteristics. This enormous system adds a colossal amount of land employed mainly for beekeeping activities, complementary agricultural tasks, and administration facilities. A system of land management of this scale likely reflects a centralized administration and the organization of intensive agrarian production with beekeeping as its main industry. How the Postclassic Maya from Cozumel and the Yucatán east coast were politically organized and how such an intensive agrarian system was administered merits further investigation.

More archaeological and agroecological studies are necessary to understand how postclassic Maya use their infield and outfield spaces to optimize beekeeping and other agrarian activities at longue durée (Batún 2009). The Yucatán karstic peninsula is a mosaic of land patches of variable productivity requiring skillful management to produce. Also, weather and rain precipitation,

needful for these activities, are variable and unpredictable. Nevertheless, Maya from Cozumel and the east coast transform their landscape into an intensive and extensive agrarian system we are just starting to reveal.

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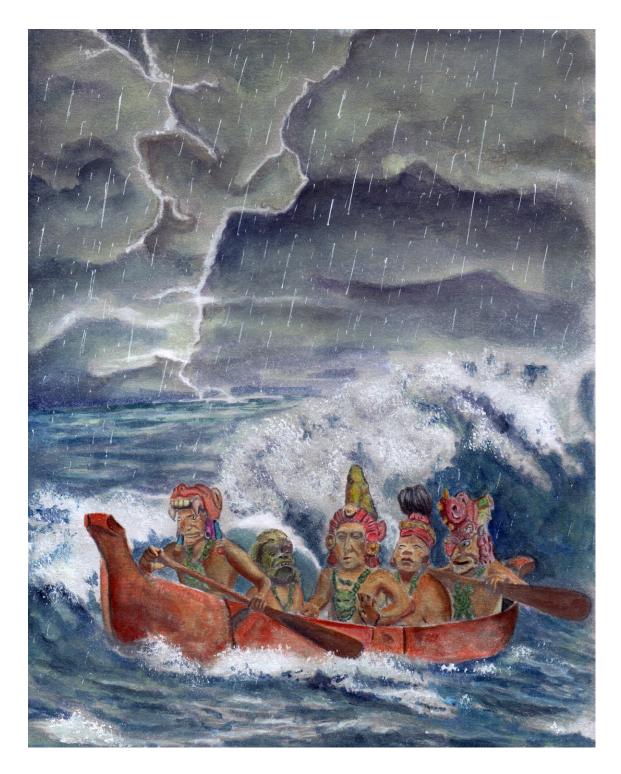
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Disaster, Deluge, and Destruction on the Star War Vase

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The aims of this short paper are threefold. First and foremost, it serves to bring a remarkable Late Classic Maya cylinder vase in a private collection to the attention of a wider audience. Although unprovenienced, and not without some indications of repair and repainting, the vase is nonetheless undoubtedly genuine, and provides numerous welcome points of contact with parallel scenes and hieroglyphic texts from archaeologically-recovered objects whose origins and integrity are not in question. Second, it highlights the significant contributions of the text and imagery of this new context to our evolving understandings of the enigmatic 'star war' verb, its mythological underpinnings, and the kinds of bellicose events it references. Third, although still undeciphered, we are now in a position to recognize that all contexts of the 'star war' verb in Maya writing reference the same event, an ancient mythological episode relating to the defeat of the Maize God in a disastrous deluge overseen by Baluun Yookte' K'uh and several other antagonistic deities. (Previously, scholars have supposed that such scenes were distinct from the seemingly more quotidian references to 'star war' as a military action.) Due in large part to these new associations and understandings, it can now be shown that the 'star war' verb represents a term referring to 'deluge', and that a frequently associated 'earth' sign most likely comprises a generalized incorporated noun rather than a core element of a single visually-complex logogram.

Keywords: decipherment, epigraphy, iconography, mythology, warfare



Introduction

This paper builds on the imagery and hieroglyphic text of a little-known Late Classic Maya cylinder vase to investigate the 'star war' phenomenon, its underlying mythology, and the significance of the military events it references. Parallel scenes and hieroglyphic texts of several well-known objects are then examined from the fresh perspective offered by this 'new' context, and it will be seen that these objects cast frequent and mutual light on one another, greatly illuminating the 'star war' event itself. This procedure allows us to recognize that the 'star war' was an ancient mythological episode recounting the defeat of the Maize God in a deluge sent by Baluun Yookte' K'uh and other gods of warfare. An additional contribution is a vastly improved understanding of the epigraphic contexts of the 'star war' verb itself. This can now be recognized as a term meaning 'deluge', to which the noun kab 'earth' is frequently joined in a general reference to world-destroying floods.

The Star War Vase

In the collections of the Kislak Foundation in Miami Lakes, Florida, is a remarkable Late Classic Maya polychrome cylinder vase (Figure 1). Visually, the first thing that strikes the viewer is the vessel's lurid yellow background, framed by upper and lower bands of red wash and painted black lines, providing a striking if somewhat unsettling contrast for black-lined figures picked out in tones of a predominantly ruddy brown. The viewer's impression of any one 'side' of the vessel is a crowded and chaotic one, with half a dozen figures visible at a time. A rollout view relieves the sense of crowding (Figure 2), revealing several distinct registers dominated by different actors, though such a vantage would have been unavailable in antiquity, with the possible exception of reference material on long-perished codices. Several prominent cracks and patches of surface erosion (especially at the upper right of the rollout) indicate that the vessel itself was encountered in fragments. Two pairs of drill-holes straddling cracks in the upper left suggest it was also damaged and repaired in antiquity. That several cracks pass through painted figures and text without apparent gaps or loss of detail is the surest sign of at least some degree of modern restoration and repainting. Other indications include botched iconographic details, such as the turtle shell drum and deer antler held by the figure perched in the tree at the upper right, rendered almost unrecognizable by the efforts of a modern artist (see Zender 2006: Figure 9b for a parallel scene). The same can be said for several glyphs in the long horizontal text encircling the vessel, especially where cracks or drill-holes are likely to have contributed additional damage. Yet much of the original iconographic and hieroglyphic contents must be fairly well-preserved, for numerous tell-tale details from parallel scenes and texts remain clearly visible here. As with so many other unprovenienced vessels, then, the result is a mixture of trustworthy elements and modern inventions which must be carefully parsed.

The Scene

The scene can be broken down into several registers focused on different actors and events. I discuss each register below, frequently drawing on parallel scenes on other objects to clarify or expand upon the events depicts on the Star War Vase.

The Canoe Passengers. The scene is dominated by a canoe borne upon turbulent waters. The

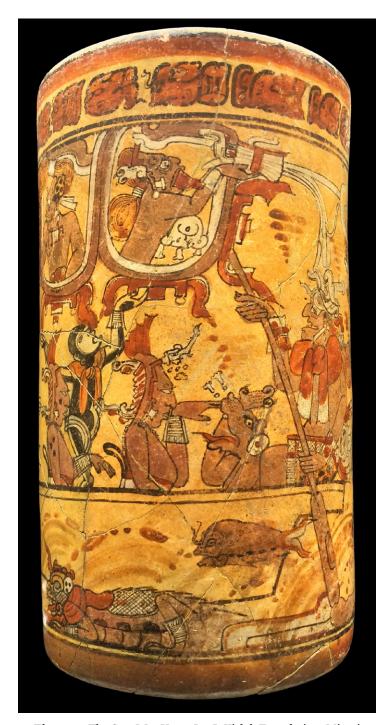


Figure 1. The Star War Vase, Jay I. Kislak Foundation, Miami Lakes, Florida. Photograph by the author.



Figure 2. Rollout image of the Star War Vase. Photographs by the author, orthorectification and composition by Simon Martin.

fast-flowing medium below is indicated by dotted arches and rounded steps representing waves and spray. These are a characteristic of many aquatic scenes in Maya art, as well as of the NAHB 'pool' and ?POLAW 'ocean' logograms in Maya writing (Stone and Zender 2011:140-141, 172-173; see also Kettunen and Helmke 2013:19). Lest there be any doubt, the waters are replete with fish and a large supernatural turtle with crocodilian characteristics (although the latter may also represent a participant in the mythological narrative). The canoe holds six figures. In the bow and stern, their eponymous paddles in hand, are the Jaguar Paddler and the Stingray Paddler, respectively. A complex pair of underworld deities, the Paddler Gods are rain-makers and known antagonists of the Maize God, whom they are frequently shown ferrying to his probable demise (see Chinchilla 2017:207-214; Freidel et al. 1993:90; Schele and Miller 1986:270-271; Stone and Zender 2011:50-51). That the journey is an unwelcome one is indicated by the Maize God's despairing pose, with one hand held limply before his face. In this case, there are two Maize Gods, in a pattern occasionally seen in other depictions (see Chinchilla 2017:120, Figure 120). Both face towards the stern of the canoe, as if unwilling to face the reality of their grim destination. Between them, a spider monkey rather unwisely stands and looks up animatedly, his hands out in shock and dismay at the rain that threatens to capsize the tempest-tossed vessel. Falling rain is indicated by the frequent convention of inverted 'water stacks', a series of five or six attenuating horizontal lines filling much of the negative space between figures and texts (Stone and Zender 2011:162-163). An equally despairing dog, situated between the Maize Gods and the utterly unphased Stingray Paddler in the stern, is the last occupant of the canoe.

The Sky. Dominating the heavens above the canoe is an elaborate iconographic representation of the so-called star sign, *ek'*, which in fact refers to all manner of celestial lights (see Stone and Zender 2011:150-151). In the eye orbits of this imposing icon are two deities. At the left is the Jaguar War God, a fire deity and patron of warfare frequently marked by stellar symbolism. His most

recognizable features are the large hank of hair tied up above his head, his jaguar ear, spiral eye, and jaguar paws. As Susan Milbrath (1999:126) notes, this imposing being is frequently "associated with the dry season, the epoch of warfare". Similarly, Oswaldo Chinchilla (2017:75) notes an intriguing depiction of the Jaguar War God, his body decorated with star signs, on a Late Classic vessel where he is "[a]pparently leading a group of victorious stellar warriors" perhaps in evocation of "a Mesoamerican myth that explained the origin of warfare in terms of a primeval confrontation among the stars" (see also Chinchilla 2005). In the other eye of the star is the Pax God, so-called because of his role as patron of the month Pax. His attributes include a large jaguar paw over his ear and great gouts of blood pouring from a jawless mouth. The Pax God's most common role in Maya art is to mark the base of supernatural trees, from which stems his role in Maya writing as the personified head variant of the logogram TE' "tree, wood" (Houston and Martin 2012). That said, and although he has no other obvious celestial or military associations, the Pax God is nonetheless frequently depicted in joint activity with the Jaguar War God (see, e.g., the Maya vessels designated K5053, K8540, K9152). Most significant is the scene on the Vase of the Seven Gods (Figure 3), where the Pax God sits directly behind the Jaguar War God in the upper register of a group of deities gathered together on the Maya creation date 4 Ahau 8 Cumku (September 9th, 3113 BC in the Martin and Skidmore 2012 correlation). In front of the Jaguar War God is a large bundle labeled 9-EK'-KAB, baluun ek' [baluun] kab, "many stars (and) many lands", suggesting that the



Figure 3. Rollout image of the Vase of the Seven Gods. Photograph by Justin Kerr (K2796).

pair were in some manner responsible for the luminous bodies of the heavens. On the Star War Vase, the Pax God appears to hold aloft a hafted stingray spine bloodletter, perhaps in offering to the heavens. A penitential petition for rain seems probable. The large star in which he and the Jaguar War God are ensconced is labeled with several 'water stacks', indicating that the star is itself the source of the deluge which threatens the canoe and its occupants below.

The image of a great star flooding lands below is of course a potent and familiar militaristic symbol in Maya art and writing. As Martin and Grube (2000:16) explain:

For Mesoamericans the celestial patron and harbinger of war was not Mars but Venus. Known by the Maya as Chak Ek' or 'Great Star', its motion across the sky was carefully charted and the subject of much prognostication. Tables to this effect can be seen in a Postclassic book called the Dresden Codex, where Venus' malevolent effect is represented as darts spearing unfortunates below. During the Classic period key points in its progress were seen as favourable for warfare and some battles seem to have been timed to exploit this supernatural advantage. The appropriate hieroglyph, a still undeciphered verb known as 'star war', shows a star showering the earth with liquid [...] It usually marks only the most decisive of actions, the conquest of cities and the fall of dynasties.

Immediately to the left of the great star and just above the Jaguar Paddler at the prow of his canoe is precisely the hieroglyph mentioned by Martin and Grube, a point to which we will return once we have considered the remaining iconography.

The Temple. The canoe appears to be destined for a temple, conventionally depicted in profile. Within the temple is a bundled effigy of the Pax God on a serpent throne, perhaps indicating the recent 'birth' of the effigy in question. Indeed, this element is evocative of a series of parallel scenes on a series of codex-style cups (see, especially, K1382, K1813, K5164, K6754, and K7838). In these scenes, a beautiful young woman is depicted in the coils of a large snake (itself the foot of the lightning god K'awiil) while being accosted by the lecherous old god Itzam. Associated texts provide an inconsistent date (perhaps best reconstructed as 13 Muluc 17 Pax), at which time several deities are said to have been "born" (siyaj). One of these deities is clearly an aspect of Chahk, the Storm God. Occasionally, the scene is expanded to show one or two bundled deity effigies inside a stylized temple. Sometimes this is Chahk (e.g., K1382), other times the Pax God (K6754); but not infrequently both are present (K1813, K7838). It is surely not coincidental that this mythological event falls on a day Muluc (symbolized by a downturned vase, and parallel to the day 'water' in other Mesoamerican calendars) and the month Pax (of which the Pax God is patron). However, only the bundled Pax God is present in the temple depicted on the Star War Vase. Yet Chahk is close by, hovering in the sky above the temple, and is evidently engaged in demolishing it with his lightning weapon, a chert axe (see K2068 and K2772 for parallel scenes.) The temple roof itself appears to be canted at an ungainly angle, perhaps indicating that it is already collapsing. There may even be thick, black smoke (indicated by the cross-hatched scallops) billowing from the temple's eaves, between the curtains and the tumbling roof comb. The destruction of temples by fire is of course a well-known symbol of Mesoamerican warfare. In the Codex Mendoza, each of the Culhua-Mexica rulers of Tenochtitlan is depicted with the toponyms of towns added to the empire during his reign, each of them directly associated with burning and collapsing temples (Figure 4).

Chahk's role as a destructive axe-wielder is further linked to the Maize God's defeat and death

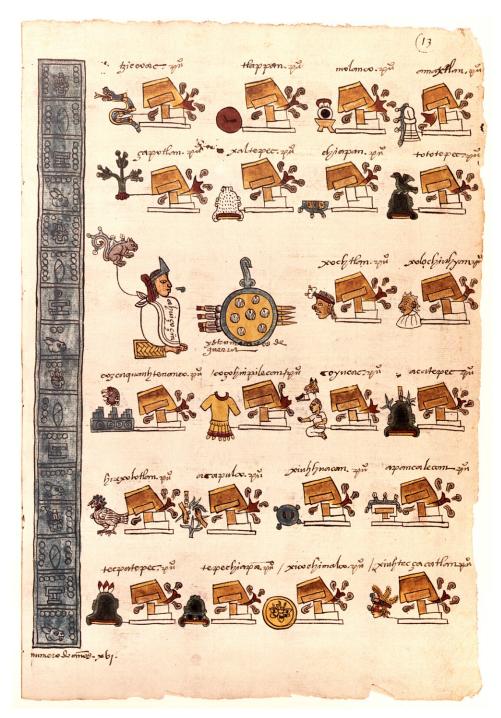


Figure 4. Ahuizotl's Conquests. Codex Mendoza, folio 13r.

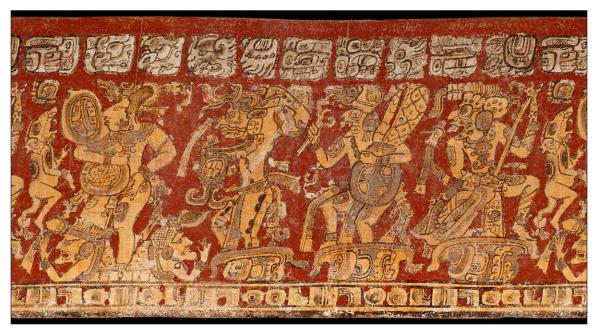


Figure 5. Rollout image of cup in the Boston Museum of Fine Arts. MFA 1988.1178 (K731).

in other scenes from both ceramic and monumental contexts. Such a scene can be found on a Late Classic cup in the Museum of Fine Arts, Boston (Figure 5). Here, as long ago recognized by Freidel et al (1993:92-94), the Maize God emerges from a split turtle carapace bearing corn and a gourd water vessel as three deities in canoes follow along behind him (see also Chinchilla 2017:220; Zender 2006:8). The first of these is the Storm God, Chahk, wielding another lightning weapon. The second is a still unidentified deity bearing a turtle shell drum and antler: almost certainly the same being perched in the mountain-top tree at the upper right of the Star War Vase (Figure 2). The third deity is clearly the Jaguar War God. Although this scene has long been taken as an episode in the resurrection of the Maize God from the turtle earth, the presence of the militaristic Storm God and War God suggest that this may instead represent part of a larger mythology of the origins of warfare and the defeat of the Maize God by meteorological and stellar beings.

A particularly evocative parallel appears on the recently-published Lacanjá Tzeltal Panel 1 (Figure 6). Here, as recognized by Golden et al (2020:78-80), the Sak Tz'i' ruler K'ab Chan Te' appears in the guise of the Storm God menacing a (now lost) captive. Nearby is a caption describing a successful 'star war' against what may be the nearby site of Bubul Ha' (glyphic **bu-lu-a**), although erosion admittedly renders the identification of the victim uncertain (see Zender 1999:115 for other examples of the local Bubul Ha' toponym). "The glyph order, as notated on the drawing, 'crosses' the body at its head or chest, then moves back across at the knees" (Golden et al. 2020:79). In other words, the text and image are interactive, and since the text refers principally to a 'star war', the depiction of Chahk the Storm God actively wielding his lightning weapons clearly served as an adequate illustration of the concept: yet another indication that the event refers principally to defeats at the hands of meteorological and stellar forces.

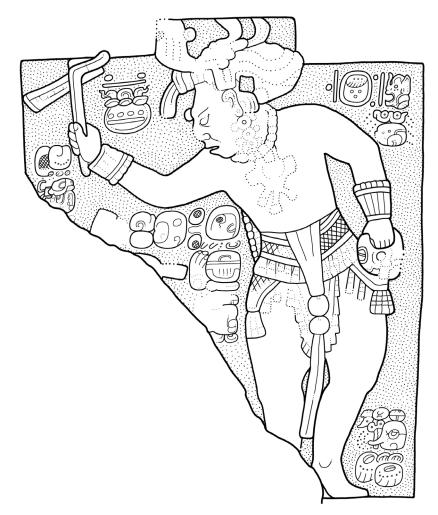


Figure 6. Detail of Lacanjá Tzeltal Panel 1. Drawing courtesy of Stephen Houston (after Golden et al. 2020:Figure 4).

The Hieroglyphic Text

I now turn from the complex iconography of the Star War Vase to the hieroglyphic caption accompanying the scene (Figure 2). Note that, as on Lacanjá Tzeltal Panel 1, the reader is required to read through the body of the Storm God. The text comprises eight hieroglyphs, which can be analyzed and read as follows:

6-AHK'AB-K'IN 16-SAK-SIJOOM-ma CVY-KAB u-KAB-?ba u-CH'EEN-na 6-IXIIM-AJAW u-KAB-ji-ya 9-yo-?OOK-?TE'-K'UH

wak ahk'ab k'in waklajuun saksijoom CVy kab ukab uch'een wak ixiim ajaw ukabjiiy baluun yookte' k'uh

"(On the) day 6 Akbal 16 Zac, there was a (?)deluge (on) the lands/realm of Wak Ixiim Ajaw by Baluun Yookte' K'uh"

While much of the structure of this passage is familiar from numerous parallels elsewhere in Maya writing, other aspects are rather less straightforward, and require more detailed commentary.

The Date. As the sign for 'darkness', Akbal is a singularly appropriate day for a mythological event of deluge, disaster, and military destruction. As will be seen below, the Calendar Round 6 Akbal 16 Zac also appears in parallel texts, indicating that this represented a well-known and widespread association in antiquity.

The 'Star War' or 'Deluge' Verb. This verb has long been recognized to incorporate the T510 EK' 'star' sign (Figure 7). Coupled with the verb's pronounced military contexts, this accounts in large measure for the term 'star war' popularized by Linda Schele (Schele and Freidel 1990; Witschey and Brown 2012:288). Because of the 'star' element, astronomical associations of the 'star war' verb, especially a putative correlation with the phases of Venus, have been extensively explored in the literature (e.g., Aveni and Hotaling 1994; Carlson 1993; Closs 1978, 1981; Kelley 1977; Lounsbury 1982; Nahm 1994). More recently, however, Aldana (2005) has examined the dates of 'star war' events statistically and refutes the Venusian association. This makes sense given that Venus is always referred to as $chak\ ek'$ (literally 'great/red star'), and that ek' is in fact a general term referring to stars, planets, and constellations (Stone and Zender 2011:151). For these reasons, David Stuart (1995:310-311; 1998) has suggested a possible connection of the 'star war' verb with meteors. The key consideration is that ek' is a generic descriptor of bright, heavenly objects, any or all of which might conceivably provide the source of the Maize God's misfortune. The next element in the sign's imagery is the great gouts of turbulent water issuing from it, indicated by the aforementioned 'water stacks' or streams of dots. Connecting this to the imagery of the Star War Vase, it now becomes clear that the concept of a heavenly 'deluge' is at the core of the 'star war' verb. In the representative examples culled in Figure 7, it can be seen that the 'star' explicitly showers earthly locations: Naranjo (in the first example), a kaaj 'settlement' (in the second), or the more generic T526 KAB 'earth' sign (in the third).

There is no longer any doubt that the 'star war' verb appears in historical inscriptions to signify only the most decisive battles, such as territorial conquest and regime change (Houston 1991,

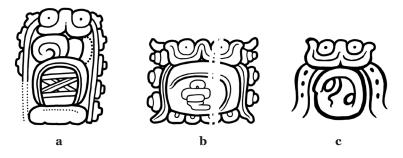


Figure 7. Examples of the 'star war' verb: (a) NAR HS, Step VI, N1b; (b) TIK T.IV, L.2, B8; (c) TIK MT-38a, Glyph 3. Drawings by the author.

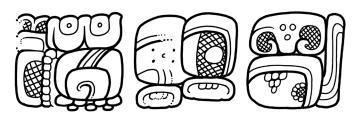


Figure 8. A passage from Piedras Negras Throne 1, E'6-F'2. Drawing by the author.

1993:137; Martin 2001:178; Martin and Grube 2000:16). Still unresolved is the precise means by which this is accomplished: the sign remains undeciphered and therefore without a lexical link to Mayan languages. Without this tether, there will continue to be competing explanations for variations in the verb's spelling. Of the 42 examples known to the author, the 'star' and 'rain' elements are the most consistent, appearing in all but the most visually-abbreviated of contexts; these must therefore comprise the core logogram. The two variable elements are T526 KAB and T17 yi, which are mutually exclusive apart from just two contexts where both appear (i.e., Tonina M. 91, pA₁, and Tortuguero M. 6, pG₄-pH₄). Although it is tempting to view **KAB** as a visual component of a complex 'star-rain-earth' logogram—occasionally eclipsed by superimposed place names or yi—it is now clear that KAB represents a separate noun, for its presence correlates strongly with individuals (or armies) as subjects, while it is usually absent when the subject is a toponym (Aldana 2005:313; Simon Martin, personal communication 2004). Given the syntax of the 'star war' verb, with an immediately following subject, kab 'earth' must be a non-referential noun incorporated into the verb stem (see Sullivan 1984). Several parallel constructions such as Colonial Yucatec haycabal "destrucción del mundo" (Barrera Vásquez 1980:191) and Modern Yucatec bulkabal "flood" (Bricker et al. 1998:38) give some idea of the senses achieved by such incorporation. As for yi, this must either provide a phonetic complement, thereby indicating a logogram of the shape CVY (as first suggested by Erik Boot 1995), or provide a partial indication of the -VVy suffix typical of intransitive verbs of motion or transitive verbs in the mediopassive voice (e.g., Aldana 2005; Golden et al. 2020:79; Stuart 1995:310-311). However, phonetic complementation provides the only explanation for a unique but telling form of the 'star war' compound on Piedras Negras Throne 1 (Figure 8). There, in a brief passage spanning the two supports, can be found the sequence:

tu-CVY-yi-la TAHN-na-CH'EEN-na?-TUUN-ni

t-u-CVy-iil tahn ch'een ... tuun

"in the (?)deluge of the center of Piedras Negras"

The **tu** prefix clearly indicates that the 'star war' logogram is consonant initial, and the following **yi** just as securely indicates that it was CV**Y** in shape. In this context, the **yi** must have appeared in order to bridge the final -y of the verb root and the initial i of the possessive or relational suffix -iil. Coupled with the considerations enumerated above, these observations form the basis of the tentative translation here offered for the 'star war' verb.

The Victim and the Victor. To return to the passage on the Star War Vase (Figure 2), note that

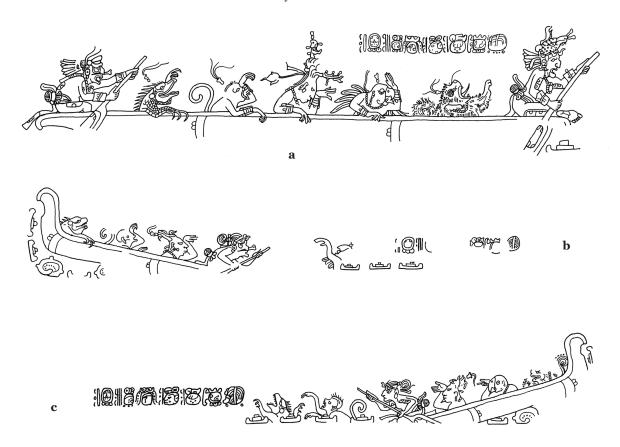


Figure 9. Parallel scenes from three carved bones from Tikal Burial 116: (a) first scene, TIK MT-38a; (b) second scene, TIK MT-38c; (c) third scene, TIK MT-38d. Drawings by Linda Schele after Andy Seuffert, SD-2014; slightly amended by the author. Used with permission.

the victim of the 'star war' is identified as Wak Ixiim Ajaw, an aspect of the Maize God incorporating the terms <code>ixiim</code> 'maize' and <code>ajaw</code> 'lord'. The victor can probably be identified as Baluun Yookte' K'uh. (A break passes through the glyphs providing this name, which also appear to have suffered some repainting; nonetheless, 9, <code>yo</code>, and <code>K'UH</code> are all tolerably well preserved.) Although not an infrequent deity epithet in Classic Mayan inscriptions (Eberl and Prager 2005; Zender and Guenter 2003:111-117), and one also attested in the Postclassic codices and several Colonial Yucatec texts (Thompson 1950:56), Baluun Yookte' K'uh is not a particularly well-understood divinity. He is certainly associated with conflict, as established by one Classic Period depiction in which a Baluun Yookte' K'uh impersonator is arrayed for war (Zender and Guenter 2003:111, Figure 15). There is also a Postclassic depiction of the deity in an explicitly military context (Dresden Codex, p. 60; Eberl and Preger 2005:32-33). Most important for our purposes, on the aforementioned Vase of the Seven Gods (Figure 3), Baluun Yookte' K'uh is named as one of the gods present at the 'creation' event, and seems to be depicted directly below the Pax God, in the middle of the lower register. Whatever his other associations, then, he was evidently in league with the stellar deities depicted

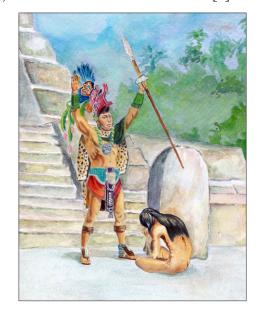
assailing the Maize God.

It is also tempting, given the shared 'nine' and 'god', to see some connection between Classic Mayan Baluun Yookte' K'uh and Colonial Yucatec Bolontiku, a group of underworld deities who are said in the Chilam Balam of Chumayel to have "seized" Oxlahuntiku, prompting "a sudden rush of water" after which the "sky fell upon the earth" (Roys 1967:99-100). The association of the actions of the Bolontiku with a world-destroying flood certainly resonates with the scene and text on the Star Wars Vase, but clearer parallels will be needed to establish firm links between these mythological episodes.

The Tikal Bones

In November 1962, the Tikal Project of the University of Pennsylvania Museum entered the tomb of Jasaw Chan K'awiil deep within Tikal Temple 1 for the first time in over 1200 years (Trik 1963). Among numerous other remarkable and informative finds were a series of 37 carved bone objects, three of which also depict the dire journey of the Maize God (Figure 9). The bones are in various states of preservation, but all of them seem to convey essentially the same visual and textual narrative. As long ago discerned by Aubrey Trik (1963:12), the scenes focus on canoes with "[d]

ivine paddlers at stern and bow" (whence our present term for them); he also correctly identified the animals, noted their changing seat assignments from scene to scene, and observed that the canoe was riding "through rough water" which occasionally "hides the bow". Thanks to the parallels with the Star War Vase, we can support Trik's observations that the water stacks and water scrolls do not merely mark the water's surface, but indicate turbulent, spraying flood waters threatening to capsize the vessel. However insightful, Trik's observations preceded Karl Taube's (1985) identification of the Maize God by two decades, and so he identified the central figure as a "gesturing priest" (Trik 1963:12). Ensuing discussions of these scenes in the 1980s and 1990s captured most of the broad outlines sketched above (Freidel et al. 1993:90, 245; Schele and Miller 1986:270-271). However, the grief-stricken gestures of the Maize God and the animals—when the latter are not gesticulating even more wildly, such as the iguana



in the third bone scene and the monkey on the Star War Vase—were not consistently recognized as such before the early twenty-first century (Grube and Gaida 2006:13-14; Houston 2001; Kettunen 2006:241-242, 302-305).

Even more striking than the shared scenes, however, are the parallel caption texts (Figure 10). In the 1960s, Trik was already able to recognize the first two glyphs as the date "6 Akbal 16 Zac" (1963:12) shared by all three of the canoe scenes on the bones, and this is of course also the date on the Star War Vase. The verb is obliterated in the second bone scene, but the 'star-rain-earth'

elements are clear in the first and third scenes, and are once again echoed on the Star War Vase. This helps establish that, while the Tikal bones depict neither the great star in the heavens, nor the Jaguar War God and Pax God, they nonetheless capture precisely the same event, albeit in a medium



that precluded their inclusion. The parallels continue with the main subject(s) of the verb, which include the same Wak Ixiim Ajaw cited on the Star War Vase, but also included a Wak Hix Winik, and one or more additional titles. (The final glyph is of course the main sign of the Tikal emblem, and may have been intended as a bridge between a more widespread mythology and a local, Tikal-centric interpretation.) The absence of a following agency clause on the bones has been one of the contributing factors to mistaken understandings of the 'star war' verb in these scenes as distinct from those in military contexts on monuments (e.g., Aldana 2005:314). This interpretation can no longer be sustained. The ukab uch'een and ukabjiiy on the Star War Vase-elements frequently seen in bona fide military contexts-strongly indicate that we are looking at one and the same verbal expression in both mythological and historical contexts.

Conclusion

Close analysis of a previously unpublished vase has established that it depicts a mythological scene of deluge, disaster, and the destruction of the Maize God at the hands of various meteorological and stellar forces. By investigating several close iconographic and epigraphic parallels between the contents of this vase, several other Maya vessels, and the famous Tikal bones, it has been further demonstrated that the same disastrous deluge is depicted on all of these ancient objects. Finally, given the close ties between these scenes and the so-called 'star war' verb, it can be concluded the latter itself depicts and references this ancient event, which would seem to provide nothing less than the mythological origins of Classic Maya warfare.

Acknowledgments

I thank the Jay I. Kislak Foundation for their kind permission to publish the Star War Vase in this venue. I also thank Simon Martin for transforming my serviceable but somewhat-less-than-aesthetically-pleasing iPhone 5S photographs (4.15mm f/2.2) into the handsome rollout in Figure 2, as well as for his friendly nudge to prioritize the publication of this important object. Stephen Houston, Simon Martin, and David Stuart all have my appreciation for fruitful conversations and correspondence about the Star War Vase. All three of them have greatly influenced my thinking about this vessel, and about the 'star war' verb and its attendant iconography more generally, though none of them bear any responsibility if I've deviated from their sage counsel and better judgement. A previous version of this paper was given at the 15th Annual Tulane Maya Symposium and Workshops,

	6 Akbal 16 Zac	star-rain-earth	ukab uch'een	6-IXIIM-AJAW	6-HIX-WINIK	?	MUT-la	u-KAB-ji[ya]	9-yo-OOK-TE'-K'UH
a							息		
b		ERODED		ERODED	Ø		1		
c						ESS 3			
d	息影	9 0						K.	

Figure 10. Parallel texts from the Tikal bones and the Star War Vase: (a) TIK MT-38a; (b) TIK MT-38c; (c) TIK MT-38d; (d) the Star War Vase. Drawings by the author.

March 11th, 2016, and I am indebted to the participants and attendees for numerous perceptive comments and constructive criticisms. Finally, I offer my appreciation to two reviewers and to the journal editors for helpful comments which have greatly improved this article.

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Book Review:

Ancient Maya Politics: A Political Anthropology of the Classic Period 150-900 CE. SIMON MARTIN. 2020.

Cambridge University Press. Cambridge. 520 pp. \$135.00 (hardcover), ISBN: 9781108483889.

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Dr. Simon Martin's much anticipated new book, *Ancient Maya Politics: A Political Anthropology of the Classic Period 150-900 CE*, is a must-read for all scholars interested in ancient Maya politics. This massive tome masterfully assembles 394 large pages of dense text subdivided into 15 chapters packed with excellent black and white illustrations (including several new ones by its author). This book contrasts with Martin's previous co-authored offerings: it is primarily aimed at theory and epigraphy-savvy graduate students and scholars. This is not a coffee table book! This Cambridge University Press product is also much pricier than his co-authored Thames and Hudson (2004, 2008) offerings. But this is for a good reason; this is the most sophisticated epigraphically-driven study of ancient politics I have encountered. Through its theoretical inflexions and rich empirical datasets, this book elevates the field of Maya epigraphy to a new level: the plane of historical archaeopolitics. The wealth of information and intellectual prowess contained in this book make its price tag an afterthought.

Among the fascinating questions asked in this book, one stands out (p.4): "How could a system of multiple polities persist essentially unchanged for hundreds of years, and why were none among them willing or able to create larger and more unified formations?" This complex question, anchored in well-defined political science foundations, brings the author to explore ancient Maya notions through the emic lenses of their own writing, glossed as "patrimonial rhetoric". Thus, Martin defines the Classic Maya political world as a "multi-polity ecology" best modeled as a "society of kings" kept in "dynamic equilibrium" through a system of "balance of power" ruled by a "moral order". In addition to his strong pan-Maya treatises, Martin relies on astutely selected case studies placed at the end of chapters which help synthesize and simplify their many concepts.

One of Martin's most elementary premises is to approach the Classic Maya world "less as a series of separate politics than as a unified political culture" (p.303). Thus, he focuses on the glue unifying all Maya polities and largely dodges the question of internal political dynamics. In this, he diverges from much of the recent archaeological literature, which explores how individual polities emerged, developed, and what political mechanisms maintained their internal cohesion (e.g., Foias 2013; Lecount and Yaeger 2010). I believe Martin's notion of a homogeneous Classic Maya political culture is well-articulated and certainly fruitful. Yet, I also perceive a certain incongruity between the quest to understand "the Classic Maya polity" and the well attested multi-faceted and multi-lingual natures of ancient Maya geopolitical landscapes.

Amongst the key topics thoroughly investigated by Martin, his treatises of hegemony, matrimony, nobility, and collapse stand out. He provides insightful and up-to-date summaries – along with a few controversial ideas – of the major contingencies of ancient Maya history, including the mythohistorical foundations of dynasties, the Teotihuacan entrada, and the Terminal Classic Chontal incursions. Throughout the book, much ink is devoted to the geopolitical ramifications of the Mutul-Kaanul hegemonic warfare, the single most influential force of the Classic Period. Martin also makes great use of statistical data, producing useful graphs to support his interpretations of Classic Maya warfare and collapse (including an anticipated new version of his famed *Tube Map*). The book's case studies and datasets are largely focused on the Southern and Western Lowlands, while the Northern Lowlands and Highlands are not addressed comprehensively. I realize that further investigating these regions would have brought this volume to outrageous proportions, yet I do look forward to a fuller regional integration within the ancient Maya geopolitical discourse.

In his book, Simon Martin aspires to put to rest the historiographic divide between archaeologists and epigraphers, and I do believe it will become a central reference for all archaeologists seeking to understand ancient Maya governments. His robust theoretical discussions are anchored in sociology, anthropology, and political sciences, but he under-utilizes some recent key theoretical contributions, such as Graeber and Sahlins' *On Kings* (2017), Shannon Lee Dawdy's *Anti-History* (2016), and Adam T. Smith's work on landscapes (2003) and political machines (2015). Martin is thorough in crediting all his colleagues for their epigraphic contributions, but as is the norm in the field, sometimes glosses over the international archaeological staff responsible for unearthing hieroglyphic texts and the corollary, key topic of the context of texts.

An important point made by Martin is that the ancient Maya were not exceptional and are eminently comparable, as reflected by his excellent comparative work featuring ancient Mesoamerica, Greece, India, China, Ireland, Fiji, and Egypt. Yet, while comparisons between the Maya and other world areas are illuminating, little effort is made to compare the Classic and Postclassic/Modern Maya worlds, which is surprising. Indeed, Maya ethnohistory and ethnographies are rarely mentioned in the book.

Ancient Maya Politics has a few shortcomings, most of which are likely related to limitations in space – the book is, after all, already gargantuan. Nonetheless, this book is a model of intellectual rigor and the new golden standard in Maya archaeopolitics. Simon Martin successfully married paradigm-shifting theoretical treatises to encyclopedia-worthy explanations of rich epigraphic datasets, the product of which will no doubt hegemonize the field of Classic Maya studies for at least one *k'atun*.

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The editors (from left to right): Mat Saunders, Maxime Lamoureux-St-Hilaire (with baby Élodie), and Brent Woodfill (during a ceremony at Salinas de los Nueve Cerros).

The Mayanist Team

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Description of the illustration on the issue's back cover Descripción de la ilustración de la contraportada del jornal

by Walter Paz Joj

The illustration is a contemporary recreation of two sacred and historical characters for the K'iche' and Kaqchikel people. Their names – Tojil and Chamalkan – are written with Mayan hieroglyphs in the headdresses adorning their heads.

Both characters have attributes related to fire. Flames emerge from the image of Tojil's foot who, according to the Popol Wuj, created fire by spinning on his own leg inside his footwear. Meanwhile, Chamalkan, the patron god of the Kaqchikels, is responsible for taking, without permission, some of the fire created by Tojil.

Both characters are tied in the center with a ribbon as a symbol of union. Each character looks to his respective side, an idea arising from the double-headed bird symbol represented in the Lienzo de Quauhquechollan, whose main significance is the alliance.

The illustrative recreation is inspired by hieroglyphs and Maya art from the Classic Period.

La ilustración es una recreación contemporánea de dos personajes sagrados e históricos para los pueblos k'iche' y kaqchikel. Sus nombres (Tojil y Chamalkan) están escritos con jeroglíficos mayas sobre los tocados que adornan sus cabezas.

Cada uno de ellos posee atributos relacionados al fuego. De la imagen del pie de Tojil emergen flamas de fuego, quién según el Popol Wuj, giró sobre su propia pierna dentro de su calzado para crear fuego. Por el otro lado, Chamalkan, dios patrón de los kaqchikeles, fue el personaje que se encargó de tomar sin permiso parte del fuego creado por Tojil.

Ambos personajes están amarrados por el centro con un listón como un símbolo de unión y cada uno viendo a su respectivo lado, idea que surge a partir del símbolo del ave bicéfala representada en el Lienzo de Quauhquechollan cuyo significado principal es la alianza.

La recreación ilustrativa está inspirada en los jeroglíficos y el arte maya del período clásico.

