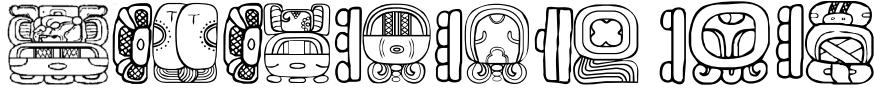




IMS EXPLORER

Institute of Maya Studies



May 19, 2021 • Modern K'iche' Maya Long Count: 0.0.8.9.11 • 7 Chuen 9 Zip • G2

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Inside this issue:

Book Release Notice by **2**
Stephan Merk: *AMOR MAYA: Ancient Maya Erotica*, by Karl Herbert Mayer

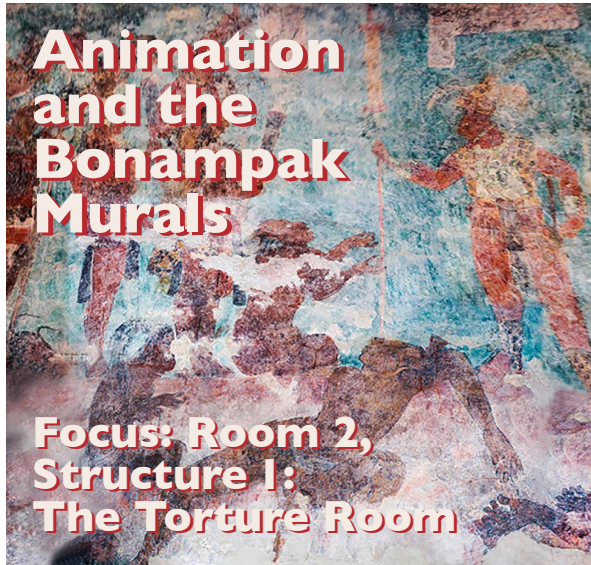
Animation and the **3**
Bonampak Murals, by Jennifer & Alexander John, (continued from pg. 1)

Inauguration of the **4,5**
Red Queen Pavilion at Palenque, by Steve Mellard

Unbundling the Past: **5**
Events in Ancient and Contemporary Maya History for May, by Zach Lindsey

If Life Gives You **6,8**
Limestone, by Kenneth Seligson

IMS Live Streaming Event; **7**
Membership Application



Animation and the Bonampak Murals

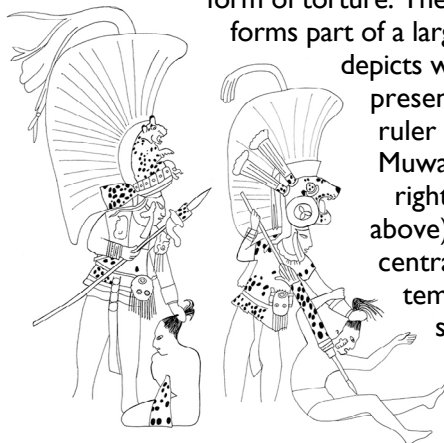
Focus: Room 2, Structure 1: The Torture Room

by Jennifer and Alexander John

Here we focus on the Late Classic Bonampak Structure 1, Room 2, north wall mural details that animate the blood dripping from a captive's fingers, whose nails have been pulled off as a form of torture. The sequence

Editor's Note: I regret that it has been a few months since the first two installments of this wonderful article. The good news is that Jennifer announced that the complete and full manuscript will soon be published in book form. So, I'm happy to include this final article (before their publisher declares it "off limits"!).

◀ *Bonampak Room 2, south wall mural central detail; "life is a battle" metaphor.*



forms part of a larger scene that depicts war captives presented to the ruler Yajaw Chan Muwaan (on the right in detail 1 above), who stands centrally on a large temple summit surrounded by royalty, also shown watching from the lower tiers. The three middle temple tiers



Top Step captive, south wall mural detail 1. Traditionally, the Bonampak captive scene has been viewed as a depiction of nine separate figures. However, we here suggest that it probably represents the animated sequence of one single individual shown approaching his own sacrifice in "nine" steps; a number, incidentally, which refers to the nine chthonic levels of the Maya world view, forming the victim's imminent destination.

At the point of capture, Yajaw Chan Muwaan violently jerks the captive by the hair. Simultaneously, his jaguar-head headdress swells to reflect his increased power. Bonampak Central Room 2, south wall mural detail 2. (Both animations extracted and adapted from Miller and Brittenham (1) 2013:103, fig. 190; and (2) 2013:94, fig. 172, respectively.)

display nine captives, stripped of their regalia and power insignia, whose movements, in combination, complete the animated sequence of what would have befallen each of the unfortunate individuals, and what

continued on page 3

IMS Streaming: May 19, 8 pm ET



Burning Rings of Fire: Early Maya Burnt Lime Production in the Northern Lowlands with Ken Seligson



Jim Reed, Editor

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Book Release Notice by Stephan Merk

AMOR MAYA: Ancient Maya Erotica

by Karl Herbert Mayer

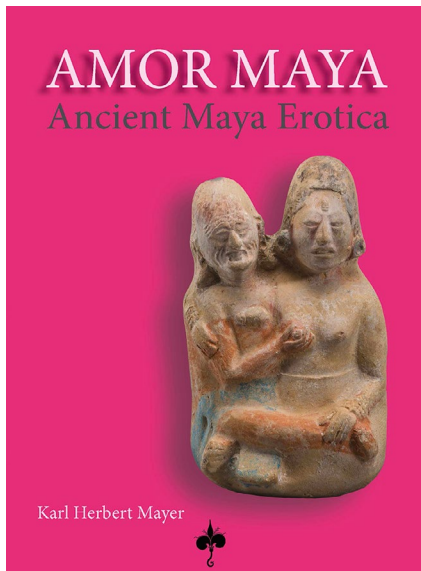
Everybody is doing it but nobody talks about it. This moralizing attitude concerning sexuality is known from numerous ancient and recent cultures in all parts of the world. Many scholars thought that also applied to Pre-Columbian Maya civilization. Until now, the prevailing idea in the fields of art history and archaeology to this matter is that the ancient Maya did not explicitly depict images related to eroticism and sexuality. However, the highly respected Mayanist Karl Herbert Mayer debunks this myth. His book entitled *Amor Maya: Ancient Maya Erotica* demonstrates the opposite, documenting that “the notion that the Pre-Colonial Maya were modest, chaste, bashful, and prudish in their behavior is not a preconception but a prevalent and stubborn assumption”. This will explain why only a few papers deal with Maya erotic art. With the present monograph Mayer closes this gap.

The eminent scholar Ian Graham once stated that “for a long time Maya art was considered to be completely free of explicit sexual representations”. Exceptions were only seldom mentioned in literature or shown in exhibitions, like the scene of the clear sexual coupling between the moon goddess and the rain god illustrated on one of the pages of the Dresden Codex (at right). A turning point was the discovery of the drawings in the Naj Tunich cave system in Northern Guatemala in 1979 with their open depictions of sexual acts: an important aspect of the private life of the ancient Maya became visible.

What we perceive as erotic is highly private. Because of that, we have no clue of what a single ancient Maya female or male meant by eroticism. Neither can we compare them to the contemporary Maya people, given the absence of studies about their sexual behavior. We depend then, on our subjective interpretation on what

was left behind by this high culture: art, architecture, iconography and glyphic inscriptions.

Karl Herbert Mayer’s contribution to the subject of Maya erotic art is the result of years of study. The author collected and assembled all available information over a long period of time, undertook field surveys, visited institutions and museum, and consulted a wide array of written sources. The findings presented in this book include several distinctive categories, among



ISBN 978-3-901510-547
Academic Publishers, Graz, Austria
161 pages, including 119 illustrations
on 47 plates, containing mostly
color photographs.



A timeless embrace featured
at the top of page 38 of
the Dresden Codex.

them Late Postclassic codices, graffiti, painted images with sexual connotation, Jaina and Jaina-style ceramic figurines portraying female nudes and embracing amorous couples, and effigies of all sort of phallic expressions. This work presents some images well known in scholarly circles, such as the female wearing a translucent robe who is depicted in a polychrome mural painting in Calakmul, or waterspouts in the form of a phallus incorporated in the roof zones of ancient Maya buildings. It also embraces unique and eccentric scenes like the surrealistic scenario of a huge mythical mosquito stinging a human female breast, as painted on a Late Classic period plate.

This book is the first monograph on this theme. It is an extensive catalog about what the ancient Maya understood as the depiction of eroticism and sexuality that opens a deeply human chapter in Maya history. ▶ To order the book, email your request to: karl-herbert.mayer@gmx.at



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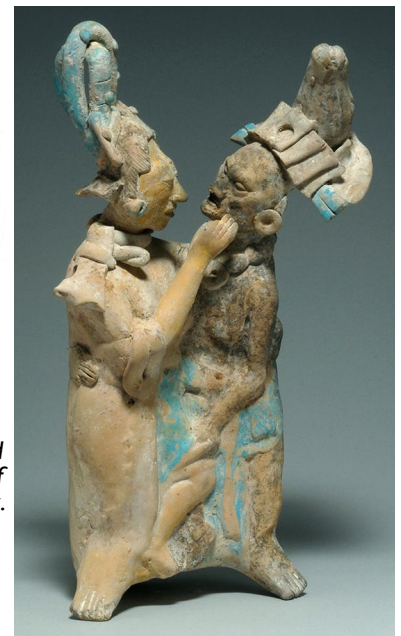
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Embracing couple in Jaina-style;
Leiden Museum Volkenkunde
collection, Leiden.



Standing pair embracing, in Jaina-style.
From Dumbarton Oaks, Washington D.C.



From Jenny's colorful mural photos, of Bonampak Central Room 2, check out this fingernail extraction animation detail. Click on: [mural detail 3](#)

Animation and the Bonampak Murals: Focus: Room 2, Structure 1, the Torture Room by Jennifer & Alexander John

continued from page 1

is partly shown in the above animation; that is, to end up sprawled on the temple steps beneath the lord's feet, after initial fingernail removal. Their horror is plainly visible on their contorted faces.

What is important is to read what lies between each depiction – the unseen, similar to the workings of the Maya literary device called a merismus, where two specific words are linked to refer to a third and broader concept; for example, in the *Popol Vuh* “deer-birds” refers to all wild animals (see Christenson 2007:48), while “thunder-bolt” forms a poetic reference to what separates and yet binds the two words, namely “time” (*Maya Gods of Time*, p.116).

In the Bonampak captive scene, read as a visual equivalent to a Maya literary merismus, the depictions juxtapose the victims' capture and torture to refer to the third broader concept of death, depicted centrally in the scene by the dead captive sprawled over several of the temple stairs.

To read the scene the viewer is required to move across the room and sweep their eyes along the mural wall to take in the animation, partly played out in the animation above. In this manner, it is the viewer's own movement which animates the sequence and brings the torture scene to life, thus bringing their own experience of the passing of time to the event.

It's important to make clear – when discussing the torture scene – that Maya artists were scribes also, and that the imagery is similarly read as with the phonetic reading of glyphs where your eye skips from one “part” of the glyph to the next, to make up the greater “whole” of a word. Think of the Mayan word for jaguar, *balam*... the syllables *ba-la-m(a)* together form the greater “whole”, *balam*.

In a similar way, the individual captives act like syllables, and to “read” the symbolic message the artist is trying to communicate requires the viewer to “skip” from one figure to the next. This approach reveals a depth of animation coded within the murals, which has been previously unrecognized. It further elevates the importance of the murals and literally brings them to life.

It also neatly relates to the philosophy of Maya interrelatedness – or interbecoming – the way in which all elements of the world are interconnected. 🏡



Again, from the Central Room 2, view this animation detail of a Chan Muwaan brandishing a spear above the captive. Click on: [mural detail 4](#) This spearing or “capture” animation acts like a merismus.

The full report of the animations at Bonampak by Jennifer and Alexander John will soon be released in book form! Meanwhile, check out these links on their most excellent website. To access the Bonampak paper that appears on their *Maya Gods of Time* website, click on:

[Bonampak Paper](#)

To go to the Bonampak section on their website, click on:

[Bonampak Section](#)

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Inauguration of the Red Queen Pavilion at Palenque

by **Steve Mellard**



Now on display within her own new special pavilion, the Red Queen and all her finery. Researchers now say she was the wife of Pakal the Great.

The pavilion is a fine tribute to the famous Queen known in Yucatek Maya as Ixik Tz'aka'ab Ajaw, Lady of Generations. Photos credit: INAH.

The Red Queen has finally come home. After conservation work and touring the Western Hemisphere, the Red Queen and her funerary trousseau are reunited and have returned to Palenque.

Mexican President Andrés Manuel López Obrador inaugurated the Red Queen Pavilion within the Alberto Ruz Lhuillier Site Museum on Sunday, March 7, 2021, in celebration of International Women's Day. The dignitaries present included the Secretary of Culture, Alejandra Frausto Guerrero, who described the event as an "inspiration and symbol of Maya women, and all the women of Mexico". Also present were Diego Prieto Hernández, the head of INAH; Arnoldo González Cruz, whose team discovered the Queen's crypt in 1994; and the governors of Chiapas and Tabasco.

The pavilion is a fine tribute to the famous Queen known in Yucatek Maya as Ixik Tz'aka'ab Ajaw, Lady of Generations. (She is also known as Ix Tz'ak b'u Ajaw.) Not only does the pavilion house the Queen in all her finery, but it also includes other relevant items and explanatory placards, all expertly exhibited.

Recent investigations have identified her as the wife of K'inich Janaab Pakal I, aka Pakal the Great, who reigned 615–683 CE. The magnificence of her tomb and funerary trousseau is second only to those of the Great Pakal himself.

●●●● Her headdress consists

of 148 carved pieces of omphacite (a silicate mineral), shell, and limestone that is, according to restorers, representative of Chaak but looks suspiciously like K'awil, the god of royalty and dynastic succession. Beneath the headdress is a double diadem of small jadeite discs, a necklace and earspools.

The main attraction, however, is the intricately carved mask that was placed upon her face.

The life-like mask is composed of over 116 pieces of carved stone: 110 of malachite, two of obsidian and four of white jadeite. The mask is a fabulous example of Maya art.

Below the mask is a *k'ub*, a woven fabric covering that extends over the chest and shoulders in a semi-circular fashion. Imbedded within the *k'ub* are over 170 pieces of carved jadeite, omphacite, and albite (a feldspar mineral). She was also adorned with jadeite bracelets around her wrists. Her very rich attire was well deserving of her status.

The original resting place of Ixik Tz'aka'ab Ajaw is found within Temple XIII. The structure is a stepped, pyramidal platform with a multi-chambered temple on its upper surface reaching a height of 39 feet (12 meters). It is located next to the Temple of the Inscriptions



Located aside Pakal's Temple of the Inscriptions, the Red Queen's original resting chamber was within Temple XIII. Photo credit: Erick Martin del Campo Castrejón.

that contains the elaborate tomb of Pakal, and shares the same platform.

The entrance to the Red Queen's tomb was discovered in 1994 by Fanny López Jiménez who was working under the direction of Arnoldo González Cruz. It took a number of weeks to clear the rubble which eventually exposed interconnecting corridors and stairways that led to several chambers. One of the chambers had been sealed off by a stone wall with a layer of stucco. The chamber was entered after careful deliberations and preparations.

The crypt itself is rather plain, and contains a large limestone sarcophagus. It features no hieroglyphic inscriptions or any other item to identify its occupant. When the sarcophagus lid was first

continued on page 5

Unbundling the Past: Events in Ancient and Contemporary Maya History for May

by Zach Lindsey

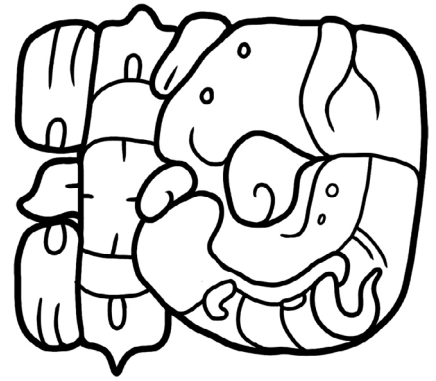
21 May 635 CE: On 9.10.2.6.6 2 Kimi I9 Sots' G9, Palenque ruler K'inich Kan B'ahlam was born. Contemporary daykeeper Apab'yan Tew believes that Kan B'ahlam's parents manipulated his birthday – either they did not present him at his moment of birth or they straight-up lied.

That's because 2 Kimi is the perfect birthday for someone who needs to be connected to the ancestors. And as an heir to a new lineage or a branch of the old lineage, he needed that connection. If correct, it would fit with the propaganda suite used by Kan B'ahlam throughout his life, such

K'inich Kan Bahlam's name from the Temple of the Foliated Cross tablet. Original artwork by Zach Lindsey.

as his emphasis on the births of mythological ancestors and gods on the Cross Group tablets. While probably unprovable, it's a great example of contemporary knowledge providing important perspectives on the archaeological record, perspectives non-indigenous folks might miss.

26 May 703 CE: On 9.13.11.6.7 13 Manik' 0 Xul GI, Lady Tuun Kaywas was buried for the first time. Tuun Kaywas was a member of an elite group called the Sak Wayas and may have been the sister or wife of Tikal leader Jasaw Chan K'awiil. But when her resting place was sacked



by Naranjo, her grieving family risked their lives to rescue the bones and bring them to Tikal, as memorialized on Tikal Altar 5. Schele and Grube paint a lovely picture of a desperate raid by Tikal which might be reading between the lines a bit. But one thing's for sure – someone cared enough about Lady Tuun Kaywas to risk their life in enemy territory for her memory. 🏰

Inauguration of the Red Queen Pavilion at Palenque

by Steve Mellard

continued from page 4

raised it revealed a female skeleton that was covered in a thick coating of red cinnabar, hence her name: The Red Queen. Two sacrificed individuals were found within the crypt to accompany her on her journey through Xibalbá.

There has been debate over the years as to whom the Red Queen might be. Recent DNA testing has ruled out Pakal's mother and grandmother. That left Ixik Tz'aka'ab Ajaw as the main contender.

Palenque was known by the Maya as Lakamha, "Big Water", and was the capital of the B'aak kingdom. It is believed that Ixik Tz'aka'ab Ajaw was from Ux Te K'uh, Place of the God of the Three Trees. This site is located within an area north of Palenque in the state of Tabasco, and her marriage to Pakal may have sealed a political alliance. She arrived in 626 CE, and eventually had three sons with him. Two of these sons became kings themselves, and she was the grandmother of another king. She gave birth to her last son at age 38.

Her title was bestowed on her upon her marriage, and is linked



Thatch-covered entrance to the Red Queen's tomb that lies within Temple XIII.

Courtesy of www.latinamericanstudies.org

to one of the great mythical deities of dynastic lineage known as Bolon Tz'aka'ab. It has been suggested that she is a descendent of a branch of the founding Lakamha dynasty originally located at Toktan. The marriage would have further legitimized Pakal's, and his heirs, claims of rulership.

Ixik Tz'aka'ab Ajaw is mentioned and depicted on a number of monuments and tablets, which along with carbon 14 analysis of her bones reveal that she lived a long and celebrated life. She "entered the road" on 9.12.0.6.17, 4 Kaban 5 K'ank'in (November 13, 672 CE).

Her return to Palenque, and placement in her own pavilion, is a fitting tribute to a noble lady. As



The woman was dubbed the Red Queen because her remains and other objects in the sarcophagus were covered with bright red cinnabar powder. Image courtesy of Arnoldo González Cruz and INAH. Posted by Mesoweb at: www.mesoweb.com/palenque/features/red_queen/RedQueen.pdf

Alejandra Frausto declared on the occasion: "We come to inaugurate once again the House of the Red Queen, Ixik Tz'aka'ab Ajaw (Lady Ruler of Generations), the queen who will be an ancestral symbol for contemporary women as she was in her time for the Maya culture".

Thank you, Steve! Check out Steve's most excellent website at:

www.themayaruins.com 🏰

If Life Gives You Limestone

by **Kenneth Seligson**

California State University, Dominguez Hills

Burnt lime (calcium hydroxide) was integral to so many aspects of daily life in the Classic Maya world. Lime mortar was literally the “glue” that held temple-pyramids, palaces, and stone-vaulted elite residences together (**Fig. 1**). Lime plaster protected building exteriors, provided paved plaza floors, and helped convert subterranean storage areas into water-tight cisterns. Soaking maize kernels in lime-infused water (a process called nixtamalization) made it more nutritious.

Lime is made by heating calcium carbonate-rich materials to a temperature of at least 800 degrees Celsius for twenty hours or more (**Fig. 2**).

This forces out all the carbon dioxide and impurities, leaving behind a substance known as quicklime. Adding water to the quicklime transforms it into burnt lime that can be used for the range of purposes mentioned above (**Fig. 3**).

Throughout much of the Maya lowlands, the limestone bedrock provided a ready source of calcium carbonate for making burnt lime, though lime makers along the coasts also used marine shells.

Recent research has demonstrated that Pre-Colonial Maya communities employed a range of pyro-technologies to produce lime. Throughout much of the Classic Period lowlands, lime makers used a variety of aboveground wooden pyres similar to ones documented in the 20th century (**Fig. 4**).

Thomas Schreiner’s (2002) study of these aboveground caleras demonstrated they were likely built in a range of rectangular and circular shapes, with some constructed directly on the surface and others within shallow depressions. Late and Terminal Classic (c. 650-950 CE)

lime producers in the Puuc and Ichkantijoo Regions

Fig. 1: The palace at Sayil, Yucatan. ▶



▲ **Fig. 2:** Lime pit-kiln in use.

Fig. 3: Quicklime (top left), burnt lime (top right), burnt lime slurry (bottom left), and stone vault held together by lime mortar (bottom right). ▶



of the northern lowlands used pit-kilns carved into the bedrock to make lime (**Fig. 5**, page 8) (Ortiz Ruiz 2019; Seligson et al., 2017).

These ring-shaped pit-kilns were likely adopted to help conserve wood fuel in the production of lime during a time when natural resource management became critical.

The production process itself is largely ephemeral – the wood burns up and the resulting lime is carried away. Yet we should not lose sight of the fact that the lime production process intersected with so many other aspects of life within Classic Maya communities. The knowledge required to construct efficient pyres or kilns, select ideal grades of limestone, and perform the proper rituals that would have been passed down from generation to generation.

The burning events were dangerous and would have required instituting precautionary measures to avoid excessive smoke pollution or harm befalling curious children. The preparations for a production event would have perhaps served as a node of interaction between multiple households. Access to the raw materials, especially the wood fuel, may have been restricted by community-wide natural resource management protocols.

Although it is possible that



▲ **Fig. 4:** Experimental burnt lime pyre constructed by Tomás Gallareta Negrón and Rossana May Ciau at Labná.

rampant production of lime at points throughout the Pre-Colonial era may have contributed to localized deforestation in certain sub-regions, the growing identification of pit-kilns even outside of the northern lowlands (Šprajc et al., 2021) demonstrates that many Maya communities took steps to conserve their forest resources.

At the least, the variety of lime production methods employed in different sub-regions cautions against making any sweeping claims about the role that lime production played in environmental overexploitation (Wernecke, 2008). Communities

continued on page 8



L) Ken during the Yaxhom Valley Survey Project Summers 2017-2019. C) A partially-excavated annular lime pit-kiln from the outskirts of Kiuic. R) An open pit-kiln as it burns in an experiment to recreate the ancient Maya pit-kilns. A video of the whole process appears in Ken's program.

May 19, 2021 • 8 pm ET • IMS Zoom Live Streaming Event

Burning Rings of Fire: Early Maya Burnt Lime Production in the Northern Lowlands

with Kenneth E. Seligson, PhD



The Ancient Maya used burnt lime for everything. From the mortar that held their elaborate temple pyramids together to the processing of corn into a nutritious staple food, burnt lime was literally the glue that held the Maya world together. Yet until recently, archaeologists were unsure of how the Pre-Colonial Maya made their burnt lime. The amount of wood used in traditional aboveground kilns during the Colonial Period and more recently has raised the possibility that burnt lime production may have contributed to deforestation in some sub-regions of the lowlands during the Classic Period. In this talk, I discuss the identification of a fuel-efficient Pre-Colonial pit-kiln technology in the Northern Lowlands that has implications for ancient Maya resource management strategies.

Ken Seligson is an Assistant Professor of Anthropology at California State University, Dominguez Hills. He is an anthropological archaeologist focusing on the evolution of human-environment relationships in the northern Maya lowlands. As a member of the Bolonchen Regional Archaeological Project (BRAP), Dr. Seligson's recent research has focused specifically on changes to resource management strategies in the hilly Puuc region of the Yucatan Peninsula during the Terminal Classic Period.

Wednesday, May 19, 2021 • 8 pm ET • Be there with us!

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If Life Gives You Limestone

by Kenneth Seligson

California State University, Dominguez Hills *continued from page 6*

were able to draw on millennia-worth of traditional ecological knowledge in devising strategies to address the Late and Terminal Classic Period challenges of demographic growth and climate change. The development and use of lime pit-kilns was but one of several adaptations that also included the expansion of raised wetland field agriculture and terracing programs, that epitomize the resilience of Pre-Colonial Maya communities.

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2017 Lime Powder Production in the Maya Puuc Region



Fig. 5: A diagram of a Pre-Colonial Maya lime pit-kiln from the Puuc Region of the Northern lowlands.

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IMS Zoom with Ken Seligson

Thanks, Ken, for this informative article. Be sure you're zooming with Ken on Wednesday, May 19, at 8 pm ET.

IMS Streaming 2021

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Every third
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May 19, 2021 • Kenneth E. Seligson
◀ **Burning Rings of Fire: Early Maya Burnt Lime Production in the Northern Lowlands**

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