

April 16, 2014 • Maya Ceremonial Era Long Count: 0.0.1.6.1 • 4 'Imix 14 Phop • G4

A monthly newsletter published by the Institute of **Maya Studies** Volume 43 Issue 4 April 2014 ISSN: 1524-9387



3

Inside this issue:

Taíno Cohoba Snuffing

and Related Objects

(800-1500 CE)

Construction at Lamanai

Maya enthusiasts providing public education for 43 years

> Central America's 4 Largest Museum, cont. from pg. 1; Taíno Cohoba Snuffing and Related Objects, cont. from pg. 3

Belize: Its History 5.6 Superimposed by My Recent Visit

7 April IMS Programs; Membership Application

Tramatic Skull Inguries 8 Reveal the Ancient Maya Used Spiked Clubs; Upcoming Events



On the Trail of the Snake Kings: Archaeology and Epigraphy in the Mirador Basin with Dr. Stanley Guenter

of screens and several irregular, more extensive openings that invite the country's warm climate into the museum's interior spaces. The rooftop functions as an outdoor exhibition continued on page 4



Heavy stone-clad walls pierced by patchwork voids conspire to reinforce the sense of visual thickness that permeates the project, referencing not only ancient Maya temples in terms of architectural materials and concepts, but also sheer scale.

An open eight-story central void extends down into the parking levels below ground, providing an interesting route up into the museum and a special place to display underworld-related artifacts.



Re-situating the ancient American architectural vocabulary within a contemporary syntax, the mass of rectilinear masonry almost resembles a Maya structure. Much of the over 640,000-square-feet of floor space is given over to large open expanses. Staggered blocks of stone border a central courtyard and act as the foundation for staircases that provide access to elevated galleries.

The bulk of the building rests atop smaller rectangular bases, thus enabling circulation beneath its structure. Its exterior is punctured by a pattern

Located on the northern edge of La Aurora Park, the new museum building will form the culmination of a cultural axis that includes the Guatemalan Museum of Contemporary Art and the Children's

Museum. This dense cluster of cultural institutions, in tandem with the large open spaces of the adjacent park will become a focal point for tourists and residents alike.

> Jim Reed, Editor

©2014 I.M.S. Inc. The IMS Explorer newsletter is published 12 times a year by The Institute of Maya Studies, Inc. The Institute is a 501(c)3 non-profit organization. Membership and renewal application on page 7. As a member you receive the monthly newsletter and personal access to the Member's Only pages on our website. Access IMS program videos, photo archives, past issues and more. Get your password by contacting our Webmaster at: keith@merwin.com

under development in Central America. It is planned to house one of the world's most significant collections of objects, artifacts, artworks, textiles and knowledge relating to the history and culture of the Maya Civilization." **Central America's Largest Museum** of Maya Culture To Be Built in Guatemala

"The new Museo Maya de América is among the most ambitious cultural projects

Plans have recently been unveiled for a new institution dedicated to Maya culture to be constructed in Guatemala City. Designed by Swiss firm Harry Gugger Studio in collaboration with Boston company Over/Under, the building is part of an attempt to establish a new cultural hub within the city. Construction is set to begin in 2015.



IMS Research Update: **Construction at Lamanai** By Joaquín J. Rodríguez III PE, SECB

Lamanai (from Lama'anayin, "submerged crocodile" in Yucatec Maya) is a Mesoamerican archaeological site on the shores of the New River. It was once a city of considerable size, located in the north of Belize, in Orange Walk District. The site's name is Precolumbian, recorded by early Spanish missionaries, and documented over a millennium earlier in Maya inscriptions as Lam'an'ain.

On a recent visit, we noticed that the building construction found at the site appears to be unique. The walls of the impressive buildings still standing are of limestone ashlars (limestone blocks) on lime cement mortar, with cemented rubble fill. This by itself is no different than many other sites. What makes Lamanai's constructions rare is that the well-cut and finished limestone ashlars are small, the size of modern-day bricks (top right). These stones would have speeded up construction, and made the mason's work a lot easier. The brick-size ashlars.

well-mortared in, have resulted in extremely stable buildings, which have allowed fabulous architecture at Lamanai to endure (center right).

Its Location Is the Key

Lamanai's key location on the New River Lagoon provided the site's inhabitants with access

to a variety of Mesoamerican trade goods throughout the site's 3500-year occupation.

Copper objects such as bells, rings, and tweezers not only had great economic value but were also highly charged symbolic objects whose sounds and colors made them particularly important for use in ritual performances and as ornaments reflecting social status. More copper artifacts have been recovered at Lamanai than at any other site in the ancient Maya world. To date, a total of 187 copper artifacts have been excavated,

Status Report of Research at the IMS

- I. Analysis and Investigation of Maya Lintels: Completed, published. First edition out of print; second printing being prepared.
- 2. Analysis and Investigation of Maya Mortar: Set of dated samples obtained in Yucatan are awaiting transfer to the U.S. Sample from Cerros, Belize, given to us by Debra Walker, was tested and good results obtained.
 - Samples brought back from a recent



The ashlars at Lamanai are the size of modern-day bricks. Photo: J. Rodríguez.



The use of smaller brick-size ashlars have resulted in a good state-of-preservation of many structures at Lamanai. Photo: J. Rodríguez.



The summit of the High Temple (A) affords a view across the surrounding jungle to a nearby lagoon, part of New River. Watercolor by Stan Loten.

including various clothing ornaments, axes, chisels, needles, and fish hooks.

There are three main excavated buildings: The Jaguar Temple, the Mask Temple (adorned by a 9-ft-high stucco mask of an ancient Maya king, see pg. 6) and the High Temple (above), which you can climb and see a panoramic view of the jungle and river.

trip to Belize will be tested and analyzed in the coming months.

3. Forensic Analysis of the Temple of the Seven Dolls, Dzibilchaltun: Completed; presented in Spanish at the Merida Congress. This report will be published in Spanish as part of the Proceedings. English version presented at the IMS; awaiting



Rick Slazyk, AIA, NCARB, LEED AP President/Membership/Website arcwerks@bellsouth.net

Marta Barber Executive Vice President/ Programming imsmiami@yahoo.com

2014

IMS Board

Joaquín J. Rodríguez III, P.E.

Administrative Vice President/ Director of Research rod44@comcast.net 954-786-8084

Janet Miess Secretary/Library Chair/Website jmiess@gmail.com

Ray Stewart Treasurer • rstu@bellsouth.net

Susan Bearse Hospitality bear6072@bellsouth.net

Patricia Manfredi pmanfred2003@yahoo.com

Keith Merwin Website Chair • keith@merwin.com

Alex Morán kj4cgv@gmail.com

Dr. Anne Stewart Education Chair

Beth Wein Hospitality bethwein@ymail.com

Beth Wiggert Subscription List beth2vic@earthlink.net

Gerald Wolfson Public Relations gerald.wolfson@att.net

Jim Reed Newsletter Editor mayaman@bellsouth.net

final edit and publishing.

- 4. Analysis and Investigation of Maya Vaults: completed and published.
- 5. New project begun: **Comparative Analysis** of Peten Architecture; headed by Eric Slazyk.

Report submitted to the IMS Board of Directors by Joaquín J. Rodríguez III PE, SECB, Director of Research

Taíno Cohoba Snuffing and Related Relics (800-1500 CE)

by IMS Member Larry Roberts

Hallucinogenic drugs have been part of the Amerindian narrative since the first immigrants made their way to the New World. From mushroom ingestion in Alaska to harmine snuffing in Chile, Native Americans had a shared magico-religious ethic.

Cohoba, (Anadenanthera peregrine and A. colubrina), has a long history among shamen both for healing and mysticism. Even today, cohoba is the intoxicant of choice among the Yanomamo of Brazil and other regional tribes. Archaeologists in Peru have found evidence of cohoba use as early as 4000 BP.

The drug originates from the powdered seeds of the Anadenanthera tree. The resulting snuff was inhaled through tubes made of bone, wood, stone and even gold. Such snuffing devices have been found throughout Andean and Amazonian cultures, from Argentina to Columbia.

For the Taíno, cohoba was the motivation for socio-political and religious events and primary incentive for the accumulation of ceremonial goods, called *cemis*. The majority exhibited some form of human or animal configuration at times combining them in a transformational relationship.

The human and human-animal transfigural *cemis* are often skeletal with deep set eye cavities, accentuated ribs, and articulated vertebrae. This familiar design theme reiterates the ritual importance of life, death and regeneration. Others are abstract, suggesting shape-shifting spirit forms experienced during hallucinations. Cemis were worshiped and consulted as existing gods embodying the active spirits of ancestors and animal envoys. For the Taíno, dialogue with the gods (cemis), was stimulated by cohoba ingestion. Las Casas and other Spanish chroniclers give us insight into the cohoba ceremony.

The chief (cacique) between is the first to ingest the drug. All remain silent until he proclaims what the cemis have shared with him. Early accounts reveal the effects of cohoba, including speaking in tongues, floating or flying sensations, graphic colors, even a metamorphic death and rebirth as a new being.

The quantities of Taíno ritual gear in Caribbean museums and private collections point to a robust sculpting fluorescence. This impetus was magnified as *caciques* became shamen dependent on sculpted gods and ancestors to provide spiritual and symbolic support.

As agents of lore and power, cemis were valued among caciques as potent status regalia. Cemis were accumulated and passed from one cacique to the next, and not considered burial goods.

Upon their arrival in 1492, the Spanish began destroying Taíno religious icons as they culturally castrated local island populations. To counter this, the Taíno began hiding their *cemis* in caves and other

secret sanctuaries. Nevertheless, exposure to disease, war and enslavement assured a rapid decline of the native peoples resulting in their extinction within 70 years.

The *cemis* that survived are testimony to the relevance of the cohoba ritual and the



Fig. 1: Vomit spatula: Owl in human persona. Owls were shamanic messengers associated with the underworld and souls of the dead; Manatee rib; length 16 cm (6-1/8").

Fig. 2: Cohoba inhaler. Anthropozoomorphic transformation featuring a crocodile head. Note symbolic gender line between knees indicating this an alter ego of Atabey goddess of water and fertility; Serpentine; length 11.3 cm (4-1/2").



complexity of Taíno anamistic beliefs. Each had its use in summoning a select representative from the collective pantheon. After the cohoba had been crushed to powder three devices were administered for ritual consumption.

First, was the vomit spatulas (Fig. 1) usually made from manatee ribs. The natural curve of the rib conformed to the throat and its dense morphology allowed for delicate carving. One end was decorated with an ancestor figure, god, or animal deity while the smooth opposing end was pushed down the throat to induce vomiting.

As we know fasting itself can cause hallucinations so we can imagine the impact of a powerful drug like cohoba on an empty stomach. After purging, cohoba inhalers were employed. As select devices for mainline divination they are among the finest Taíno art. The imagination and creativity meld in a sculptural talent rarely seen. Stone appears to be the medium of choice though examples in bone, shell, and wood are known. The use of stone reflects the cosmic value of the artifact.

continued on page 4





Fig. 3: Twin bird head snuffing vessel. Birds were considered cosmological spirit guides during cohoba induced entropic journeys; Marble; length 10.9 cm (4-5/16").

Taíno Cohoba Snuffing and Related Relics (800-1500 CE)

by IMS Member Larry Roberts continued from page 3

A stone's texture, color, and reflective quality were all part of its *cemi* power. Yet we cannot discount an inhaler's intrinsic value when considering the extraordinary creative energy used to carve it. It is the direct embodiment of a select representative god. Inhalers can vary, so we will discuss the most familiar type, the bifurcated or "Y" inhaler, (**Fig. 2**, pg. 3). This genre consists of two snuffing ports at the top and one at the bottom.

The two top tubes go in the nose and the base, just above the powder. In most cases, these are crafted as ancestral or *cacique* figures or anthropozoomorphic characterizations often in transitional combinations with animal heads and human-like bodies. Single-port or straight inhalers exist, but are uncommon.

The third active ritual device is the small hand-held receivers called cohoba vessels. Like the inhalers, these receptacles depict variations



Fig. 4: Possibly a ceremonial tool used for inserting drugs into the anus. Note bird head as symbolic for cosmological companion and closed eye a recognized metaphor for transcendence; Manatee bone; length 13.9 cm (5-1/2").

of human, animal or animalhuman combinations. Though small, they can range from shallow indentions in elaborately carved manatee bone to beautifully carved spirit forms with cohoba receptacle centrally located, (**Fig. 3**, pg. 3).

I hesitate to add a fourth device as it is more speculative than sustainable. Still a few artifacts suggest the use of anal drugs as seen on Maya vases. It is interesting to note the hallucinogenic drug Maya priests extracted from large marine toads, contained *bufotenine*, the same psychotropic intoxicant found in cohoba.

Fig. 4 appears to be some form of pushing tool. This is submitted by form and decoration. The long ovate contour conforms to purpose and the bird symbolism suggests flight. Slit eyes indicate meditation or spiritual conjuring. Birds were frequently spiritual

companions during cohoba journeys. To buttress this thesis, the shell pendant in (**Fig. 5**) illustrates a god grabbing his cheeks in anticipation of some rectal recreation.

Whatever the interpretive content one can see from



Fig. 5: The Taíno god Baibrama holding his cheeks in anticipation of hallucinogenic insert? Shell; length 7 cm (2-6/8").

the few pieces illustrated, objects sculpted for cohoba rituals illustrate amazing vigor, craftsmanship, and creativity. Their style and designs are composites of human and island biota, shaped as agents of spiritual representation, cosmological interpretation, and cacique power.

Note from author Larry Roberts: "I published a book, *Taíno Sculpture: Art of the Gods,* available April 2014. It is an art history approach to Taíno ceremonial goods and has over 400 unpublished ritual artifacts. If interested in a copy, I can be contacted at *flafinds I*@cox.net, or at I-352-318-9152. For those wishing to see an exhibit, the Orlando Museum of Art has a display of 32 Taíno ceremonial artifacts on view until July I, 2014."

Central America's Largest Museum of Maya Culture To Be Built in Guatemala

continued from page 1

venue and will also contain viewing terraces and a restaurant.

The building will center around a lofty courtyard that will be surrounded by staircases and modelled on a natural sinkhole, called a cenote. The large surface of the roof will also be used to collect rainwater in a manner recalling traditional Maya practices by drawing water through a series cenote – enhancing the museums commitment to the environment through water recycling. Set to be completed in 2017, the new building will be located at the northern corner of a public park within view of the Guatemalan capital's airport. Already, \$60 million has been budgeted for the construction effort.

Sources: weburbanist.com, http://blog.archpaper.com and www.dezeen.com. Images courtesy of Harry Gugger Studio and Over/Under; renderings by Neoscape. Submitted by Mark Gale.



Belize: Its History Superimposed by My Recent Visit by Janice Van Cleve

Belize is an accident of history. It was an important part of the Maya world since at least 2500 BCE, but when the Spanish came in 1530 CE, they largely ignored it. Belize had no gold and the Maya fiercely resisted the invaders. Thus it was what we would call "unincorporated" when English pirates took refuge there in the I7th Century.

The English started a few industries on the coast and imported African slaves. The Spanish eventually allowed the English settlers to run their own affairs, but only if they would cease their piracy. In 1798, the Spanish made one feeble attempt to retake the colony, but the settlers and their slaves beat them back in what is today celebrated as the Battle of St. George's Cay.

I met up with the rest of our expedition at the airport in Cancun. It was 85°F which was quite a shock from the -10°F I left behind in Minneapolis. I counted myself lucky that the flight was not canceled as so many were because of the "Arctic Vortex" sweeping down over the U.S. at that time.

The 16 of us were in one way or another associated with the Institute of Maya Studies and we were on a Maya adventure to Belize.

We raced down the highway in our Mercedes minibus to cross the Mexican/Belizean border by 5 pm. Evidently, Belize requires all drivers to carry insurance and the insurance office closes at 5 pm.



The view from Structure A6 to Structure A2 at Caracol.



Carvings on the peak of El Castillo pyramid (Structure A6) at Xunantunich. All photos by Janice Van Cleve.

The immigration and customs people would not let us pass without proof of insurance. They also charge \$20US to enter their country and the Mexicans charge \$20US to leave theirs. Of course, they get you coming back the other way, too.

Fortunately our trip leader Marta Barber anticipated this. We paid a lump sum up front when we registered so all meals, fees, accommodations, tickets, water, and even cocktails were included. All we had to pay on the trip was for souvenirs.

Our first stop was Orange Walk. I didn't see any legs on the oranges but they sure grow a lot of them around there. Valencia oranges are a major crop, along with sugar cane. Belize sells the orange juice to Florida. Isn't that like selling refrigerators to Eskimos? Speaking of Eskimos, that is one of the few ethnic groups not represented here.

Besides English, Spanish, Maya, Creoles (African-Belizeans), East Indian, Chinese, German and Garinagu, there are many Mestizos who are blends of these. Mestizos have become

the largest ethnic group, and Belize now has more native Spanish speakers than English or Creole speakers, despite English being the official language. Even the Belizean coat of arms displays light and dark



people building the country together. In the northern end of Belize are two of the



A well-preserved stucco mask at Caracol.

culturally most important Maya sites in the area - Cerros and Cuello. Cerros was one of the first places in the Maya world to adopt the institution of kingship, build temples, and unify villages into a larger community. Cerros was also one of the first to drop the whole idea and abandon the site. Unfortunately we could not get there because the river ferry was out of commission. Cuello was one of the early centers of trade, maize cultivation, and Mamom ceramics that later spread throughout the Maya world. Time prevented us from getting there as well.

However, northern Belize is dotted with lots of ancient Maya sites and we took a long boat ride up the New River to one called Lamanai. This is a sprawling Maya site that boasts large stone and stucco masks on its temples and one of the tallest pyramids in the country. Of course I had to climb it (with the help of a rope conveniently strung down the stairs) and the breeze at the top was even more welcome than the view.

Later, I talked with one of the museum guards on site and he let me into the storeroom where they keep the artifacts they found there.

Belize is a small country, but it takes forever to get from

continued on page 6



Belize: Its History Superimposed by My Recent Visit continued from page 5

one end to another. One reason is that there is no direct coastal road. Another reason is that their department of transportation is infatuated with speed bumps. Speed bumps are every few miles. So we had time to see the countryside and what struck me was all the schools. There are many schools in Belize, most of them run by religious organizations.

While the north is largely flat and heavily jungled, the south is dominated by the Maya Mountain range. Between the mountains and the southern coast, the land is given over to agriculture. Oranges, cacao, coconuts, and corn are raised here.

We visited two Maya sites in the area: Nim Li Punit and Lubaantun. Nim Li Punit was in the sphere of influence of Copan in Honduras during the 7th and 8th Centuries which I noted in my biography of the Copan king, Eighteen Rabbit.

We stayed at the small coastal village of Punta Gorda where we dined on fresh seafood under the stars. Our next stop was back up to the west end of the country. The road from Flores in Guatemala to Belize City on the coast is the main east/west axis of Belizean industry and population. The new capital, Belmopan, is located midway on this road and so are some of the major Maya sites - Tikal, Yaxha, Naranjo (in Guatemala) and Cahal Pech and Xunantunich (in Belize). Both of the latter are very impressive and well worth repeat visits.

We stayed in a nice resort just outside the entrance to Cahal Pech for several days which gave us time



This is a view looking across the plaza to Structure A4 at Cahal Pech.

This was the first cave we visited in the Maya Mountains. All photos by Janice Van Cleve.

to catch up on laundry and email. It also gave us time to booniewhack into the jungle to explore the caves.

The whole Yucatan peninsula is largely limestone and the north slopes of the Maya Mountains are full of caves. The Maya considered these to be entrances to Xibalba, the Underworld, and so they used the caves for rituals and burials. Two of our group opted for the wet cave into which they had to swim. No way was I going to do that one!

I opted for the "dry" cave which entailed a muddy, slippery, bouncy ride in the back of a pickup truck through the jungle and then a mile walk to the actual site. Fortunately, the seats were well padded! We explored one cave (pictured above) and then visited Actun Chapat cave which had angry bees at the entrance. It was slippery inside, but the limestone formations were beautiful.

The next day we bounced and slogged 50 miles south through mountain jungles to get to the major Maya city of Caracol. Caracol was a large and powerful kingdom which attacked and defeated Tikal in 562 CE.

Yax Kuk Mo, the founder of the Copan dynasty, was a lord of Caracol at one time so this site was a must-see for me. The site features many large temples including the famous *Caana* or Sky Palace. Apparently, this huge mass of stone and rubble was erected as a shrine to the major ancestors and deities of the polity.

Interrupting the ascent up the face of the *Caana* are two landings on which rows of office/residences were erected for royal officials and their families. I got all the way to the top where a large plaza bordered by three pyramids (remember this is 140 ft above the ground) also housed office/residences and two very large tombs.

Returning on that muddy, nasty jungle road back to our hotel we got stuck and had to be winched out.





Detail of a nine-foot-high stucco mask on the Mask Temple (Structure N9-56) at Lamanai.

Fortunately the rest of our journey was on paved roads with many of the aforementioned speed bumps.

Returning to Orange Walk, we visited Altun Ha, a Maya trade center which is the target of many excursions from cruise ships from the nearby coast. The Belizean parks department understands that it is not possible to keep tourists from climbing the pyramids so they wisely constructed stairways up the back of the structures.

We also visited Noh Mul where the local sugar cane farmer bulldozed two pyramids to gravel his farm roads. This was very sad to see. The violated side of one pyramid even exposed a tomb which now is nothing but an open hole in the side of this "quarry".

I count myself fortunate to have seized the opportunity to take this trip. I got to visit eight Maya sites and one cave in nine days, with a fun bunch of people, good food, and nice accommodations. Yet it is always good to be back home in chilly, drippy, gray Seattle. I love it!

Janice Van Cleve is a writer and amateur archaeologist with several books published on the Maya. Her latest research paper may be found at www.mayas.doodlekit.com. April 9, 2014: Ancient Maya Cities Series Presentation:

Tikal: A Style All Its Own

with IMS President Rick Slazyk, AIA, NCARB, LEED AP



The limestone used for construction was local and quarried on-site. The depressions formed were plastered and were used as reservoirs.

21 A - V2

We'll examine the design elements associated with the architectural style of Tikal and explore the evolution of building groups of the North Acropolis.

Situated in the department of El Peten, the site is part of Guatemala's Tikal National Park and in 1979, it was declared a UNESCO World Heritage Site. Though monumental

April 16: IMS Presentation:

architecture at the site dates back as far as the 4th century BCE, Tikal reached its apogee during the Classic Period, ca. 200 to 900 CE. The architecture of the ancient city is built from limestone. The main plazas were surfaced with stucco and laid at a gradient that channeled rainfall into a system of canals that fed the reservoirs.



The North Acropolis is one of the most studied architectural groups in the Maya area; the Tikal Project excavated a massive trench across the complex, thoroughly investigating its construction history.

Guenter cleans the left side of a two-panel series of Maya glyphs from the site of La Corona. This particular panel helped point to La Corona as the long-sought "Site Q". The left side depicts king K'inich Yook of Sak Nikte.

On the Trail of the Snake Kings: Archaeology and Epigraphy in the Mirador Basin

with Dr. Stanley P. Guenter

Affiliated with Idaho State University and the Foundation for Anthropological Research and Environmental Studies (FARES)

In this talk, epigrapher **Stanley Guenter** will discuss the adventures of his research investigating references to legendary ancient rulers of the Snake Kingdom found on Codex-style vessels from the Mirador Basin of northern Peten, Guatemala.

Do you know... The Kan Kingdom of Mirador... • is the largest ancient city in the Western hemisphere?

created the first freeway system in the world?holds the largest pyramids in the world by volume?

- is the last remaining tropical forest in Central America?
- is the largest proposed archaeological ecotourism park in the Western Hemisphere?

All meetings are 8 pm • Institute of Maya Studies • Miami Science Museum

New Membership and Renewal Application

Name:	New Q R
Address:	
	Patron: \$150
City, State, Zip:	Century: \$10
E-mail:	Membership in the
Phone:	two lectures a mol

The IMS has gone Green! Join today

You can also become a member by using PayPal and the on-line application form on our website at: http://instituteofmayastudies.org

Members: Be sure to get your password by contacting our Webmaster at: keith@merwin.com

Mail payment to: The Institute of Maya Studies, Inc. • Attn: Membership • 3280 South Miami Avenue • Miami, FL • 33129 The Institute of Maya Studies is a 501(c)3 non-profit organization. Membership dues and contributions are tax-deductible to the fullest extent allowed by the I.R.S.



Guenter (L) and ecologist Santiago Billy (R) study both sides of the panel where it was originally discovered at La Corona. http://smu.edu

Institute of Maya Studies

The Institute of Maya Studies is totally member-supported! If you are not a member, please take a moment and join us. Membership brings benefits and helps the IMS offer educational programs to the public. If you are already a member, please encourage your friends to join. If you need any assistance, call our Maya Hotline at: 305-279-8110



Century: \$100 Member: \$50 Ibership in the IMS includes

Membership in the IMS includes attending two lectures a month; a year's subscription to our downloadable monthly **IMS Explorer** newsletter; and access to all features on our website: past newsletters, videos of IMS lectures, upcoming program announcements, IMS photo archives, and more!



Traumatic Skull Injuries Reveal the Ancient Maya Used Spiked Clubs

Archaeological clues such as fortified defences, remains of obsidian blades and projectile points, as well as numerous murals depicting warfare, suggest that Maya society was not a peaceful one. The Maya are known to have used a variety of weapons in war, such as blow guns, spears, daggers, and javelins, and now scientists have found evidence that they also used spiked clubs which inflicted catastrophic injuries on their victims.

Evidence for the new weapon comes from the study of 116 skulls dated between 600 BCE and 1542 CE, which were recovered from 13 sites, including the important Maya capital of Mayapan, in northwest Yucatan. The research published in the American Journal of Physical Anthropology has revealed that

Upcoming Events at the IMS:

April 9 • 8 pm: Ancient Maya Cities Series: **Tikal: A Style All Its Own** – with IMS President **Rick Slazyk**. We'll examine the design elements associated with the architectural style of Tikal from an architect's point of view.

April 16 • 8 pm: IMS Presentation: On the Trail of the Snake Kings: Archaeology and Epigraphy in the Mirador Basin – with

Dr. Stanley Guenter, who is affiliated with Idaho State University and the Foundation for Anthropological Research and Environmental Studies (FARES).

May 14 • 8 pm: Ancient Maya Cities Series: Calakmul: A Walking Tour – with IMS board member Janet Miess.

May 21 • 8 pm: IMS Presentation: Fifty Shades of Grey and Orange: Late Classic Maya

Ceramic Figurines – Results from a study of Maya figurines lead to insights into the political and economic changes during the eighth century, with **Erin L. Sears** of the University of Kentucky.



the pattern of injuries seen in some of the skulls are consistent with being struck by a club with An example of a spiked club. The Bonampak murals depicting war scenes.

points embedded in them. Study author Dr. Stan Serafin, a bioarchaeologist from Central Queensland University, said that the team examined the location, frequency, and shape of skull trauma injuries, such as the presence of unusual oval-shaped indentations, and concluded that these indicated the use of a spiked club.

The scientists also discovered that males had fractures concentrated on the front left of the skull, indicating that they were struck by a righthanded opponent approaching from the front, while a smaller number of female skulls showed injuries at the back, suggesting evidence of a surprise attack. Wars were important to the Maya for a variety of reasons, including subjugation of neighboring city-states, acquisition of territory, prestige, control of resources, and capture of prisoners for slaves and sacrifices. Serafin reported that the frequency of the skull trauma decreased during the late Classic period, but increased in the Postclassic period.

Source: From an article by April Holloway released 3/24/14 at: www.ancient-origins.net. Submitted by Mike Ruggeri and Scott Allen.

Upcoming Events and Announcements:

April 10-13: Fourth Annual M@L **Maya at the Lago Conference** – (M@L) is a four-day "Everything Maya" event that's comprised of lectures, workshops, and exciting social activities. Stanley Guenter, our speaker at the IMS on April 16, will be leading a hieroglyphic workshop on 4/11. Archaeologist and IMS member Heather McKillop of Louisiana State University will present on 4/12. This year's Lifetime Achievement Award honors Dr. Paul Healy. At Davidson Day School in Davidson, NC. More info at: www.mayaatthelago.com

April II, 7:30 pm: *MSM Lecture* Agriculture, Forest Management, and the Demise of the Classic Maya City of Tikal – Theme of a Maya Society of Minnesota Lecture by David Lentz, Executive Director and Professor, University of Cincinnati Center for Field Studies. At the Northrop Auditorium, University of Minnesota, Minneapolis, MN. Get more info at: *http://sites.hamline.edu/mayasociety* April 23-27: 79th Annual SAA Meeting Society for American Archaeology Annual



Meeting – To take place at the Austin Convention Center, Austin, TX. There is a wealth of field trips this year! Visit *http://saa.org*

June 6-8: Archaeoastronomy Conference Charting a Formal Methodology for Cultural Astronomy

Research – Theme of the Society for Cultural Astronomy in the American Southwest Conference on Archaeoastronomy of the American Southwest. At the Arizona State University School of Earth and Space Exploration, Tempe, AZ. Additional info at: http://sfcaotas.wildapricot.org/2014conference

Editor's Tip: Online all the time Visit the IMS facebook page under the group Institute of Maya Studies – Join in the fun!

Join in the **Explorer**-ation! Scholar or not, we welcome submissions from IMS members. Share what interests you with others. All articles and news items for the **IMS Explorer** should be forwarded to the newsletter editor at: mayaman@bellsouth.net