



# ARCHAEO MAYA

The Newsletter of Maya Exploration Center

[www.mayaexploration.org](http://www.mayaexploration.org)

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## On The Horizon:

- Spring Equinox!
- Ten more MEC travel courses in 2008
- MEC Associates to appear in new documentary films
- MEC Membership Program coming in 2008
- New online publications

## Earley Wins the 2008 MEC Longhorn Award

Each year our Board of Directors grants the MEC Longhorn Award to a graduate student enrolled at the University of Texas at Austin who shows great promise of making a major contribution to Mesoamerican studies. This year's award of \$3000 goes to Caitlin Earley, a second year PhD student in the Department of Art and Art History.

Earley comes to the field by way of a background in English, graduating cum laude from Williams College in 2003. While in college, she studied the art of the Maori culture in New Zealand. Later she worked as an editorial assistant for Sterling Publishing and Little, Brown and Co., in New York, before deciding to enter the Mesoamerican field. She has studied broadly, from the Pre-Classic throne tradition to the sacred landscape of Late Post-Classic sites. Her summer field work has been equally far-ranging, from excavations in Ecuador to the Maya site of La Milpa, in Belize. Her master's thesis will focus on the iconography and cosmology of Chiapa de Corzo, an important, though little studied, Pre-Classic site originally excavated in the 1970s. Located in the temperate region of Chiapas, Chiapa de Corzo served as an ancient crossroads for Olmec, Maya, Zoque, and Mixtec peoples. Earley's artistic analysis will present dramatic new information on the dynamics of this frontier area and the ethnic identity of its inhabitants. She will hold a poster session on Chiapa de Corzo and the Isthmian tradition at this year's Maya Meetings and will deliver a paper, "Caves and Cosmology of Utatlan," at the SAA conference this April.



*Caitlin Earley working in La Milpa, Belize*

Along with her research, Caitlin Earley has made a meaningful contribution to her department and to university life. She serves as Research Assistant to Dr. David Stuart. She is also co-chair of the Precolumbian Art History Student Association and co-chair of the Mesoamerican Graduate Student Association, a campus organization she helped found in order to improve communications among scholars in different departments of Mesoamerican studies. In between, she has been doing publicity for the Maya Meetings. Caitlin Earley has already proved herself to be a brilliant asset to the UT program and to Mesoamerican scholarship.



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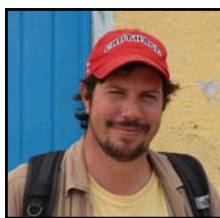
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## Letter from the Director



Spring is almost upon us and MEC's study abroad programs are in full swing! In this issue of *ArchaeoMaya*, you'll read about the three we've already conducted in 2008. And we have ten more scheduled for this year. Thirteen MEC study abroad programs planned for 2008: a magic Maya number, and the most we've ever led in a single calendar year. Universities are lining up for our travel courses, and I couldn't be prouder of our progress.

Our research activities are also on the rise. In this issue you'll read about Kirk French's continuing investigation of Palenque's water management system and his creation of a whole new field of study called "hydroarchaeology." MEC's archaeoastronomy studies also continue. Research we presented at last year's conference of the Society of American Archaeologists will be published by University of Colorado Press, in a volume to be edited by yours truly. In December, Alonso Mendez made MEC's third visit to Chaco Canyon, New Mexico, to share with and learn

from the Pueblo and Navajo peoples.

Funded by our growing education programs and donations to MEC, we are supporting the Maya studies community on a new level this winter. This issue's lead article is the announcement of our Longhorn Award for Excellence in Mesoamerican Studies, to be presented to **Caitlin** Earley during the Texas Maya Meetings. We are in the final design stages of the 2009 Mayan Calendar, which will present our astronomical research to its widest audience ever. Though painfully slow in development, our membership program will be unveiled in 2008, giving our community's members increased access to important online research resources.

Thanks to all of you who support us through program participation, donations, and plain interest. MEC is now five years old and going strong. With your support, we'll grow straight through the next five, these prophetic years leading to 2012 and the arrival of the 13th Baktun.

Sincerely,

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## Albright College in Quintana Roo

In January, MEC led the kind of multi-disciplinary travel course we love to lead. At the request of Dr. Richard Heller, a biology professor at Albright College, Pennsylvania, Ed Barnhart, arranged a week in Quintana Roo that covered archaeology, modern Maya culture, flora, fauna, and Latin American health issues.

The course began in Tulum, where the large group of twenty students visited the ruins and explored the S'ian Kan biosphere by boat. Then it was off to the ruins of Coba and searching for monkeys in the jungle with the Maya guides of the Baboon Sanctuary. On the third day the group traveled into the interior for a visit to Tihosuco, the birthplace of the "Caste Wars," a series of Maya uprisings fought during the 19<sup>th</sup> century. After a warm welcome, the townsfolk proudly discussed their history and their knowledge of medicinal plants. Then everyone sat down to a traditional Maya lunch in a typical Maya home where the local band played as everyone feasted.

Based in Valladolid, students spent the next two days visiting the ruins of Chichen Itza and Ek Balam, important centers of the Maya Post-Classic period. An afternoon's swim in Cenote Ik'il provided a welcome break from the heat. On the final day, in Puerto Morelos, students learned about Yucatan's flora in the Ethnobotanical



*Albright student Sarah Bertrand with a crocodile at Crococun Zoo*

Garden and fauna in the Crococun Zoo. That night in Playa del Carmen they all gathered on Restaurant Yax Che's terrace for dinner and closing ceremonies.

Though the course was meant to be a one-time offering at Albright, student response was so positive that Dr. Heller has already expressed interest in another MEC travel course for 2009.

## BSC: Learning by Doing in Chiapas and Peten



*Birmingham Southern students in the Peten*

Like many small universities throughout the United States, Birmingham Southern College has no anthropology department. MEC's two-week travel course in January helped fill that void by immersing science and humanities majors in basic archaeological studies. The course was initiated by Dr. Scott Dorman, a chemistry

professor at B.S.S.U. who had participated in last summer's Chautauqua program, which is designed to give National Science Foundation members a chance to broaden their horizons. Dr. Dorman wanted his students to experience the same kind of intellectual and personal challenges. Thanks to Ed Barnhart's careful planning, the course was, in Dr. Dorman's words, "outstanding."

With Christopher Powell and Kirk French as their instructors, students learned that there's more to archaeology than excavating with a pick and shovel. During visits to the great lowland Maya sites of Chiapas and Guatemala, the group received a thorough grounding in Maya astronomy, mathematics, water management, and ecology. In addition to attending formal lectures, students explored the complex aqueduct system hidden in the jungle at Palenque. They also hiked in to the remote site of Lakanja. Overnight stays in Flores and Frontera Corozal gave them a taste of modern Maya culture.

*Continued on Page 5*

## Rivers of Time: Hydroarchaeology at Palenque

Blessed with perennial springs, the ancient city of Palenque prospered for over a thousand years. While other great Maya centers depended on seasonal rainfall, Palenque was unique for its ever-flowing streams, the vital feature that gave the city its name: Lacanja, or "Great Waters." But during the ninth century, some scholars suggest, the rains ceased to fall. Drought, they say, was the key factor leading to the abandonment of Palenque and the major lowland centers. War, famine, disease, and environmental degradation – the universal plagues once blamed as primary causes for the Maya collapse – are now considered by-products of the great drought that devastated Classic Maya civilization.

This timely theory is gaining supporters in academia and receiving a surprising amount of press. Catastrophic water shortages in India, Africa, and China make the problems faced by the ancient Maya tragically up-to-date. The trouble is, the theory may be dry.

According to archeologist Kirk D. French, there is not enough data to prove that Palenque ever suffered a prolonged period without rain or a severe depletion of its watershed. Kirk has been investigating water management at Palenque for the past nine years. As he sees it, "the Palenqueños, unlike the people of Tikal, weren't concerned about storing water. Their challenge was devising methods of managing an abundance of it!" One of the innovative things the Palenqueños did was build aqueducts that brought water to the Palace and central living compounds. They also redirected the rivers to create grand ceremonial plazas. The system is a testament to advanced social organization and an engineering marvel. "What really makes Palenque distinctive from other Maya sites is its knowledge of watershed hydrology."

To help gauge changes in the current watershed, Kirk's PhD. advisor, Dr. Christopher Duffy, a hydraulic engineer at Pennsylvania State University, came down to Palenque this January. Over the next three years, they plan to measure stable isotopes as well as conduct geophysical, soil, and hydrometric surveys. By the end of the project they should have a model that can be used to compare simulations of water management features built at Palenque with simulations of changing conditions in geology, soil, vegetation, weather, and water. The simulations will show the impact of people on their environment and the impact of the environment on people, past and present.

This interdisciplinary project is unique, relying on the



*French and Duffy measuring Palenque Arroyo Otolum*

latest technology to study one of Mesoamerica's most elaborate and best preserved Pre-Columbian water management systems. In fact, the collaboration between Kirk French and Chris Duffy may represent the start of a new field – Hydroarchaeology.

The results of the project have a variety of applications. Information can be used immediately by city planners in the rapidly growing town of Palenque, where water systems are showing signs of environmental stress. A long-range goal of the study is to use the hydro-archaeological approach for studying other ancient sites around the world. Dr. Duffy is a history buff as well as an engineer, and he is convinced that ancient civilizations can tell us a lot about water systems and what we ought to be doing.

The proposed research will also contribute to the debate over whether or not drought played a role in the Maya collapse. "If there was a draught, I'm interested in how the Maya of Palenque responded to the crisis," Kirk says. "My guess is that the Maya were smart enough to search for solutions, not just sit there and die of thirst."

## BSC: Learning by Doing (continued from page 3)

But the real focus of this course was on hands-on projects. At Tikal, students rose before dawn to make sunrise observations from Temple IV. At Yaxha, Yachilan, Tikal, and Lacanja, they took compass measurements of the ball courts. When the results were in, they found that the lower platforms of all the courts are oriented north-south – quite a discovery!

Back in Palenque, experiments to duplicate the rubber balls used in the ancient ball game were foiled by bad weather. Although rain made it impossible to collect fresh latex, students braved the storm in order to gather morning glory vines. The stalks contain sulfur, the chemical additive considered essential for making natural rubber. Using Ed Barnhart's kitchen as a makeshift lab, some students mixed the vines in a blender, others squeezed the pulp by hand. Both methods produced a mere ounce of juice. As one student said, "It's amazing that the ancient Olmec and Maya figured out the chemistry."

## College of Idaho Explores the Mayab

Variety was the theme of MEC's travel course for 17 students and three professors from the College of Idaho. In a ten-day whirlwind trip at the end of January, Christopher Powell guided the group down the Caribbean coast and through the central region of the Yucatan Peninsula. In other words, they traveled the length and breadth of the *Mayab*, as the Maya call their world.

At first glance, the landscape of Quintana Roo and Yucatan appears changeless. Students soon discovered a variety of eco-zones, from the mangroves of S'ian Kan to the dense rainforest of the Calakmul Biosphere Reserve, the largest in Mexico. Along the way they stopped at colonial towns and traditional rural villages, swam in blue lagoons waters and deep green cenotes, and saw an enormous variety of wildlife.

Of course, the main destinations were a variety of Maya sites, from the Pre-Classic site of Kohunlich to Post-Classic Tulum. In all, the group visited eight ancient cities, including Chichen Itza, Ek Balam, and Uxmal. Christopher Powell's introductory lectures on Maya history and cosmology created a solid intellectual framework for touring the ruins. His in-depth talks on Maya astronomy, geometry, and calendrics provided unique insights into the complexity of Maya thought. Dr. Dora Gallegos's field lectures on biology and geology added a scientific perspective on the natural world surrounding the sites. Students quickly



*The College of Idaho Exploring Loltun Caves*

learned that each Maya city is different, and if there is a reason for the incredible variations in architectural style, it may have something to do with how the Maya conceptualized their environment.

Keeping up with myriad places and times was no easy task. Fortunately, every student kept a journal. The questions never stopped coming and spirits never flagged. At Calakmul, while climbing the highest pyramid in the Yucatan, the students were caught in a sudden downpour. They arrived at the top, soaked to the bone but triumphant.

## News From the Field

### Satellites Locate Guatemalan Temples

After many years of hit and miss investigations, NASA satellite images have recently identified five previously unknown Maya ruins in Guatemala's most remote rain forest - Northern Peten. Continuing with imagery used during his project in San Bartolo, Archaeologist Bill Saturno identified patterns of discoloration and then GPS ground truthed them to be the sprawling ruins he had suspected they were.

Saturno's partner at NASA, Tom Sever, has high hopes for satellites' ability to teach us about the past saying, "What we are investigating is the choices the Maya made that ultimately created a catastrophic situation for them." Whether images from space can help us understand the Maya collapse or not, it's exciting to see satellites becoming regular items in the archaeologist's tool box.

### Sony Buys 2012 Script

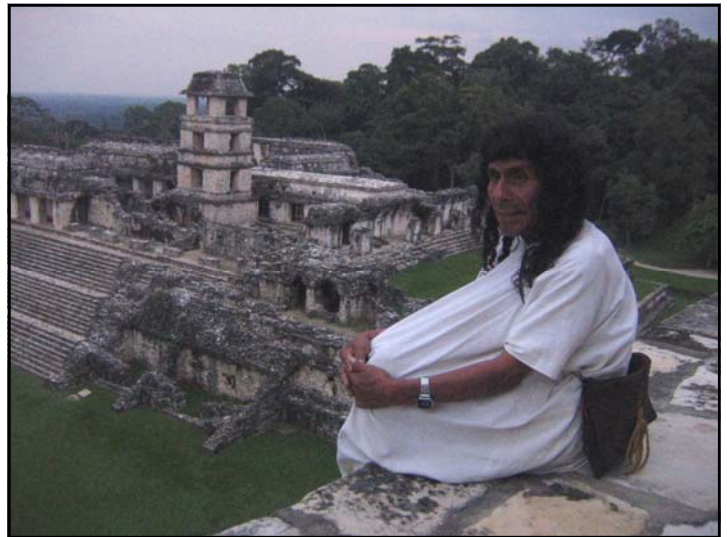
Following the wave of Maya calendar based books that are coming out this year, Sony has publicly committed to greenlight an epic disaster film named simply "2012." Big name writer Roland Emmerich, who wrote the scripts for "Day After Tomorrow" and more recently "10,000 BC", wrote and pitched the script to multiple studios. Several studios bid on the project, though some left the table upon learning its pricetag could reach \$200 million. The movie is set for release in summer 2009.

## A Modern Maya Ceremony at Palenque

The temples of Palenque ring with the footsteps of thousands of tourists and the voices of occasional travelers chanting *Om*, but the unhallowed stones haven't stirred with the sounds of a Maya ceremony for over a millennium. With special permission from INAH, a

dozen Lacandon Maya from the rain-forest communities of Naja and Lakanja Chansayab gathered at Palenque on January 26, 2008, to pay homage to their creator, Hachakyum, and to their ancestor, Pakal the Great. In addition, they took this rare opportunity to honor Don Antonio Dominguez of Naja. A shy man in his seventies whose sensitive face is wreathed with long black curls, he is the keeper of traditional rituals, the last Lacandon who makes regular offerings to the gods.

Don Antonio is the son-in-law of Chan K'in Viejo, seer, shaman, and late spiritual leader of Naja. Old Chan K'in lived to the age of 109, and when he died, in 1996, he failed to name a successor. Since then, most Lacandons have converted to evangelical sects. Ranchers have encroached on the Selva Lacandona, the mahogany forests have dwindled. Chan K'in Viejo predicted that when the jungle dies his people would die with it. His son, Chan Kin Tercero, admitted that young people are too caught up with modern life to follow the old ways.



*Don Antonio atop Palenque's Temple of Inscriptions*

Modern life is fairly rudimentary for most Lacandons, who may travel as far as Palenque and San Cristóbal or stay home and watch satellite TV. Few tend their corn fields. They no longer hunt wild boar. Artisans make bow and arrows, seed necklaces, and beautiful wooden carvings, which they sell to tourists visiting Bonampak, a site the Lacandons control. Tourism has sparked private enterprises, and perhaps the beginnings of a cultural revival.

The noonday ceremony started on the Palace terrace overlooking the Temple of the Inscriptions, then moved to House E and the portrait of Lord Pakal. Addressing the small, mostly foreign audience, a Mexican draped in a Lacandon tunic expressed the need for world peace and love. Then he presented Don Antonio with a large jade and silver medallion. Three Lacandons stood quietly by, clutching a god pot, an Aztec hatchet, and a crystal skull. Later they were joined by a contingent of Rainbow People, here to celebrate the conjunction of Saturn and Mars. That evening, they all participated in a ritual steam bath and rites of purification.

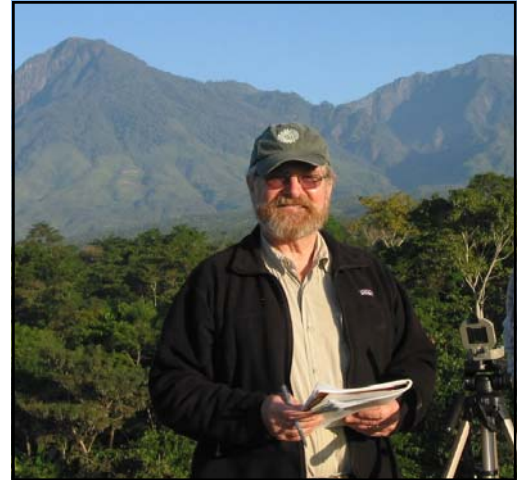
# Harold Green Joins the MEC Board of Directors

MEC is pleased to announce the appointment of Harold Green to its Board of Directors. His exceptional educational background and experiences are particularly suited to our mission, research initiatives, and long-range goals.

Like many members of the MEC team, Green followed a winding path to the field of Maya archaeology. After receiving a B.S. at Stanford and Masters in Chemical Engineering at Cornell, he served as a Peace Corps volunteer in Nigeria, where he taught high school chemistry, mathematics, and literature. When he returned to the United States, he decided to study law. After graduating from Harvard, he practiced with a private law firm in Seattle for thirty years.

Retirement for Hal spelled a whole new life. He began studying Old and New World archaeology and attending Maya hieroglyphics workshops. Having traveled to numerous sites in Mexico, Guatemala, and Belize, he did field work at the Pre-Classic site of Chocolá, on the Pacific coast of Guatemala. His solar observations there confirmed the importance of zenith and nadir passages among the early Maya. Green was the co-organizer, and a major presenter, at MEC's special symposium, "New Perspectives on Ancient Maya Astronomy," held at the SAA meetings last April.

A professional colleague and old friend, Hal Green brings legal expertise and archaeological knowledge to the MEC board. He plans to expand MEC's educational programs.



*Hal Green conducting field work in Chocola*

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