



# ARCHAEO MAYA

The Newsletter of Maya Exploration Center

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- American School in London returns to Chiapas
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## Flood Disaster and Aftermath in Villahermosa



Rescue efforts in flooded Villahermosa Photo: BBC

After four days and nights of relentless rains, the waters of the Grijalva River swallowed downtown Villahermosa on Day of the Dead and turned residential streets into raging rivers of mud and sewage. Thanks to immediate sandbagging, the colossal Olmec monuments in La Venta Park survived the storm. The museum, on the other hand, was engulfed by four feet of water, and damage to its ancient treasures is still unknown. The Cencali Hotel, where many of our course participants have stayed, was inundated by rising waters from the nearby lagoon. Over 500,000 residents of Villahermosa remain homeless. It is the worst flood disaster in Mexican history.

The Grijalva River, flowing from the mountains of Chiapas down through the broad Grijalva Valley, was once the chief waterway for dozens of ancient Maya and Zoque cities. As the river emptied into the coastal marshes of Tabasco, it created a home for the great Chontal Maya seafarers, who carried elite goods and cultural ideas between central Mex-

ico and the Yucatan. Mudslides have now imperiled remote Maya and Zoque towns in Tabasco and Chiapas and left the rural population stranded. News reports are slim.

Media attention has also been diverted away from the two hydroelectric dams built on the Grijalva River during the 1980s. After the disastrous hurricane flooding of 1999, the government promised to extend the dikes protecting Villahermosa. The proposed project was to be completed in 2007.

When the river peaked at the end of October, the dams were opened and the flood waters unleashed.

Christopher Powell's wife, Alejandra Merino, a medical investigator for the state department of health services in Villahermosa, is in charge of coordinating rescue and relief efforts. The response of Red Cross medical teams, military, and local police has been exemplary. Donations are pouring in from every part of Mexico. The US government has contributed \$300,000 to the relief effort.

Now that the flood waters have subsided, citizens are cleaning up. To ward off cholera and dengue fever, the government is aggressively fumigating door to door and placing chlorine in the drinking water. Most of the population is living in makeshift shelters. Hundreds of people are missing, and the unofficial death toll has climbed to 20. Considering the extent of the damage, recovery has been remarkably swift. "Neighbors are sharing food, water, clothes, and money," Christopher Powell reports. "The disaster has brought out the best in human nature."



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## Letter from the Director



This fall, MEC researchers reached far and wide, simultaneously witnessing both zenith and nadir passages - in North and South America! As Christopher Powell led an exciting travel course in Peru, Alonso Mendez conducted tours for Day of the Dead in highland Chiapas and for nadir passage at Palenque. Those events enhanced our relations with the Chabot Planetarium and brought about two unexpected opportunities: the chance to have 3-D maps of Palenque and participation in a new pilot education program for adult college students.

Meanwhile, MEC team members have made a great leap forward in reaching out to Maya students who were unaware of their great and glorious past. I am particularly pleased about our growing relations with Sna Jtz'ibajom and Universidad Intercultural de Chiapas in San Cristóbal. Alonso Mendez deserves credit for deepening this partnership and for serving as a fine role model for young Maya students. The spontaneous enthusiasm among class participants is reminiscent of the high level of excitement that Linda Schele generated when she began teaching Maya people about their history. In fact, some of her early students were in Alonso's audience, and after recalling how important those days were, lamented that

with her passing no one had continued her work until now. All of us at MEC were touched by Linda's magnificent spirit, and we are proud to be following in her giant footsteps.

MEC is also making a difference outside the Mundo Maya. For my part, I gave lectures about our research to over 200 students at Mesa State College, Colorado, and also met with the administration of the American School in London, to confirm our joint 2008 service-oriented learning program in Chiapas. I am particularly excited about reviewing the nominations for our 2008 Longhorn Award. One talented student at University of Texas at Austin will be receiving our annual \$3000 award for excellence in Mesoamerican studies. The nomination period ends this December, and the winner will be announced at the 2008 Texas Maya Meetings.

The disastrous flood in Villahermosa barely affected MEC staff in Palenque. Bus travel and airline flights were cancelled or delayed, cell phones, internet service, and ATM's were out for a few days, and there were gas shortages, nothing more. During the height of the flood, Christopher and his wife, Alejandra, had plenty of food and water - and five people sleeping on their floor.

We are all safe and sound and enjoyed our Thanksgiving turkey in Palenque, Tikal, and in London. It's a small world! We have plenty to be grateful for this season, first and foremost your continuing support.

Sincerely,

## Zenith Passage in Peru With Midland College

The overpowering grandeur of the Peruvian Andes is an inspiration at any time of year, as is the Inca Empire whose bold cities matched the mountains. The 21 students and professors from Midland College who accompanied Christopher Powell in October had plenty of curiosity and stamina for this fascinating cultural journey. The timing was perfect: zenith passage at Machu Picchu.

But first, the ancient city of Cusco. Participants roamed the narrow alleys, marveling at the magnificent interlocking stone walls and comparatively fragile Spanish colonial architecture. The contrast between monolithic Inca stonework and delicate Spanish carving tells a puzzling story, because in the end, the masters of stone capitulated to the conquistadores, who were not so refined after all. They mercilessly sacked the city, stole all the gold from the seemingly impregnable Coricancha, the heart of the vast Inca Empire.

A visit to the great fortress of Sacsahuaman, outside Cusco, only deepened the mystery. A people who could build defensive walls out of 100-ton boulders could surely withstand an army of giants. Why did they succumb? Deeper questions dogged participants as they surveyed the grand citadel of Ollantaytambo and the beautiful terraces of Pisac. Christopher Powell's lecture on Inca masonry helped course members see the details but could not provide the answers. How did the Inca build those walls? If not the Inca, then who?

The same questions prevailed at the great Inca site of Machu Picchu. There, massive foundations support the smaller stone walls of later builders. A number of structures grow out of solid bedrock, making the site one with the jagged mountains.

This is true of the famous "Hitching Post of the Sun," which marks the summer solstice. In fact, the entire site is aligned to the June solstice sunrise and the winter solstice sunset. And as Christopher pointed out in his lecture on the archaeoastronomy of South American sites, most Inca cities are aligned to the June solstice.

Now it was October 31, zenith passage. Three structures at Machu Picchu seem to face the rising zenith sun. The



*Llama grazing on the terraces of Machu Picchu Photo: Ed Barnhart*

group was up at dawn, ready to observe the sunrise. Unfortunately, wisps of mist prevented visibility.

Undeterred, the group waited for noon, when the sun would stand directly overhead. Inside a rectangular structure called Las Materos, two circular disks are imbedded in the ground. The disks serve as catch basins for water. The building has no roof. At noon, the zenith sun shone directly into the miniature pools. Christopher was reminded of the Kogis of Colombia who placed water in a hole at the center of their ceremonial houses to capture the reflection of the zenith sun.

There was another striking zenith feature about Las Materos. Projecting from the top of the roofless walls was a row of evenly spaced stones. At noon, the wall shimmered with brilliant solar stripes. When the group later visited Ollantaytambo, high above the Sacred Valley, they observed the same dazzling effect along one of the fortress walls.

The Spanish chroniclers tell us that during zenith passage in Cusco, Inca musicians filled the main plaza and sang from dawn to sunset. MEC's second travel course in Peru provided equal cause for rejoicing. Research there is in its early stages, and apart from amazing archaeological sites and scenery, the region offers thrilling possibilities for new discoveries.

## Maya Cultural Revival in Chiapas

This year, Maya Exploration Center made great strides toward fulfilling its intercultural mission. In cooperation with the Maya cultural group Sna Jtz'ibajom ("House of the Writer") and the Universidad Intercultural de Chiapas, in San Cristóbal de las Casas, we are conducting an exciting new outreach program that brings ancient Maya culture into the modern Maya world.

The program meets a vital need. Over the past 20 years, economic pressures and social conflict have forced thousands of Maya people to leave their traditional communities for urban areas, sometimes as far away as Los Angeles and Chicago. In the process, they are losing their ancient languages and customs. The sad part is that even the Maya who cling to traditional life are unaware of the history and achievements of their ancestors. An educational program on Maya civilization is one means of strengthening cultural identity.



*Sna Jtz'ibajom Actress*

Sna Jtz'ibajom is dedicated to preserving Maya traditions. They have studied ancient history and hieroglyphics with Dr. Linda Schele. Their literacy program has taught over 5,000 children and adults to read and write Tzotzil and Tzeltal Maya. Their theater company, radio programs, and publications interweave ancient Maya myths with social and environmental concerns. After 24 years, Sna Jtz'ibajom is creating a Maya cultural renaissance.

And they are not alone. FOMMA, a Maya women's group committed to improving the status of Maya mothers, has offered courses in job training, literacy, and cultural enrichment since 1993. Their theatrical productions deal with women's issues. As they see it, the self-esteem of Maya women would be considerably enhanced through knowledge of ancient Maya civilization. FOMMA's co-founder Petrona de la Cruz recalls that when she first played the role of Lady Xoc, queen of Yaxchilan, Linda Schele happened to be in the audience and afterward came up to explain just how important a figure Lady Xoc was. That moment changed Petrona's life.

The activities of both groups eventually led to the creation of the Universidad Intercultural de Chiapas. Established in 2004, UNICH offers courses in the sciences and humanities to indigenous students from the seven lan-

guage groups in the state. The dialogue between traditional and modern values is a fundamental part of the learning process.

There was one missing ingredient - instructors committed to sharing their knowledge about ancient Maya culture. That was resolved last March, when Sna Jtz'ibajom invited Christopher Powell to present a four-hour course on ancient Maya history, science, and mathematics. Out of those popular lectures was born an ongoing series of seminars, conferences, and workshops.

On June 22, summer solstice, Alonso Mendez gave a presentation on the history and astronomy of Palenque to members of Sna Jtz'ibajom and FOMMA. During his talk, the class realized that the key stations of the sun not only marked major events at Palenque, but also major fiestas celebrated today. The lecture quickly shifted to a stirring discussion of the parallels between past and present. Alonso's talk on hieroglyphic writing, held at UNICH on October 11, roused the same lively exchange.



*Alonso Mendez at the Frontera Corozal Community Center*

For the next lecture, on November 9, Alonso traveled to Frontera Corozal, a bustling new community on the banks of the Usumacinta River that caters to tourists bound for Yaxchilan, Piedras Negras, and Tikal. Artisan development programs organized by Chip Morris provide an alternative source of income. The impressive stelae harbored in the new museum make this frontier

## Maya Cultural Revival in Chiapas (Cont.)

town an important stop. Although the town's livelihood depends on tourist interest in the ancient Maya, its residents - relocated settlers who are recent converts to evangelical sects - feel little connection to the past. The history of Yaxchilan is as mute as the great palms that give this town its name. The conference changed all that, as fifty high school students discovered the names and deeds of great rulers and the political and religious ceremonies that cemented their power. Suddenly the sculptures in the museum began to speak. With their interests sparked, the class requested a future hands-on workshop on hieroglyphic decipherment. Meanwhile, students have been calling on the phone, begging for more learning materials.

Over December 1-5, UNICH is hosting the event, *El Sol Nos Une A Todos* ("We Are All One Under The Sun"), jointly sponsored by NASA, UC Berkeley, and

INAH. The goals of the conference are in sync with our program: to build bridges between ancient and modern science and between Maya youth and Maya investigators in the field of archaeoastronomy. In preparation for the upcoming meetings, Alonso Mendez just gave an evening lecture on Maya astronomy at UNICH. Once again, students were inspired by the talk.

MEC's outreach program has already provided a much-needed forum in which members of diverse Maya communities can discuss their customs and beliefs in light of ancient traditions. These dynamic exchanges are contributing valuable insights to our scientific and ethnographic research. Although it is too early to measure the program's impact, participants say they are surprised at how relevant Classic Maya culture is to contemporary Maya life. The ancient past is becoming a meaningful part of the present.

## Barnhart Speaks at Mesa State

Flying over the Rocky Mountains and the beautiful mesas of Western Colorado, Ed Barnhart landed in Grand Junction on November 15<sup>th</sup> for a whirlwind 24-hour visit to Mesa State College. At the invitation of Dr. Cathy Barkley, Mesa State's Assistant Vice President of Academic Affairs, he was there to present MEC's current research on ancient Maya astronomy and mathematics. Before the start of his first lecture, students and faculty poured into the 150-seat auditorium, and there was a mad scramble for more chairs. The flood of questions after his talk further confirmed the college community's intense interest in the subject. The next day, at the Mathematics Department's monthly brown bag lunch, Barnhart presented Christopher Powell's groundbreaking research on Maya geometry. Again the room filled to capacity, and questions continued in the hallway long after the next class began. Inspired by the talks, a number of Mesa State students immediately signed up for our March travel course to Copan. Another strong college affiliation for MEC is well on its way.



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### Upcoming Public Tours

**Pillars of the Classic Maya, Palenque to Tikal, March 29 - April 6, 2008**

Learn the details and sign up at [www.mayaexploration.org/tours.php](http://www.mayaexploration.org/tours.php)

## News From the Field

[Road to Cut Through Izapa](#)

The pre-Classic site of Izapa, on the Pacific coast of Chiapas, is under threat. INAH workers report that the planned expansion of the coastal highway from Tapachula to the Guatemalan border will run right through the ruins.

Izapa is a seminal site in the history of Mesoamerica. Founded in 1500 BC, it may have been the birthplace of the sacred calendar as well as early religious thought. Izapan stelae depict elaborate scenes involving the Hero Twins and Seven Macaw, who later appear in the *Popol Vuh*.

As a national archaeological zone, Izapa is protected under federal statutes. The Mexican construction company, Grupo AZVI, is apparently in defiance of the law. INAH workers have formed a committee to fight the road. The governor of Chiapas, Juan Sabines Guerrero, has promised to look into the matter and see if the road can be modified in order to save the site.

[Morales Moves to Merida](#)

MEC Associate Alfonso Morales is moving to Merida this fall, leaving Palenque in order to start a new archaeological tourism initiative in Yucatan. Over the last decade, Alfonso has made enormous contributions to Palenque, setting exemplary standards during his excavation at the ruins, as well as creating the city's first urban planning board. In his typical "under the radar" manner, he sought little credit for his work on behalf of indigenous rights and the local environment. Few people are aware of the positive impact he has had on their lives. Alfonso and his partner, archaeologist Julia Miller, will remain members of Palenque's community, but their day-to-day influence on the city's rapid development will be sorely missed.

## Nadir Passage in Chiapas

In Precolumbian times, feasts honoring the dead were held during the November nadir passage. Although the two events now fall a week apart, MEC's celebration of the Day of the Dead and our solar observations of nadir passage were united in spirit.

In the highlands of Chiapas, Alonso Mendez led a group from the Chabot Planetarium in Oakland, California, to Maya festivals outside San Cristóbal. Chabot is producing a planetarium show on ancient Maya astronomy, and Alonso is one of the consultants. During the visit, composer Michael Stearns recorded a band of Tenejapa musicians, whose guitar, harp, and violin will become part of the soundtrack for the production.



*Nadir Passage at Romerillo, photo by Alonso Mendez*

On the Day of the Dead, the Chabot team observed feasting and prayers at the cemetery in Chamula. At Romerillo, a sea of marigolds swelled toward the hilltop, where 20 giant crosses, decorated with pine boughs, floated against the cloudless sky. The graves are usually protected with wooden planks. The "doors" were open that day as hundreds of families awaited their ancestors with food, drink, and music.

Harold Green, along with his son, Colin, and his old friend Wally Smith, chose nadir passage to pay a visit to the highland villages and to the lowland Maya sites. Greene helped coordinate the MEC symposium on Ancient Maya Astronomy, held during the SAA meetings last April in Austin, Texas. His solar observations at the pre-Classic site of Chocoma, Guatemala, provide further evidence of the importance of zenith and nadir passages in Mesoamerica.

After witnessing a dramatic religious ritual in Chamula, Green and his guests toured Bonampak, Yachilan, and Tonina, accompanied by Christopher Powell and Alonso Mendez. Needless to say, the highlight of the trip was the observation of nadir sunrise at Palenque.

Overwhelmed by the experience, Colin Greene is eager to make a contribution to MEC's astronomical research. An expert in photography who has worked on such productions as "Matrix," Colin has offered to produce 3-D animated models of ancient Palenque. Wally Smith was equally inspired by

his intense introduction to ancient and modern Maya culture. Wally is head of the Osher Lifelong Learning Institute, which offers adult education programs at 100 colleges throughout the US. Plans to set up a pilot program with MEC are now in the works.

Nadir passage marks the opening of the portal between this world and the next. This year, nadir opened doors of communication to new relationships and new possibilities.

## Maya Skies: Lights! Camera! Action!



Don Hart on location in Yucatan

Chichen Itza is the site for the major filming of the IMAX feature, "Maya Skies." The subject is ancient Maya astronomy, and the film will be shown at full-domed planetariums. Sponsored by the INAH, Chabot Space & Science Center, in Oakland, California, and National Science Foundation (USA), the production involves a host of specialists. MEC Board Member Dr. Donald Hart is the project archaeologist for the film, and MEC Research Associates have served as consultants. Australian film director, John Weiley, will be adding his considerable talents to the film. Mr. Weiley has received worldwide acclaim for his IMAX films, "Solar Max" and "Antarctica." According to Executive Director Alexandra Hall, the film will premiere in California in December 2008 and then be available for international distribution. In conjunction, PBS is producing a "making of" television special on the project.

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