

Travel with The Planetary Society and discover
the Chicxulub Meteor impact crater!

MAYA WORLD

& the Great Dinosaur Extinction • November 10-18, 2011

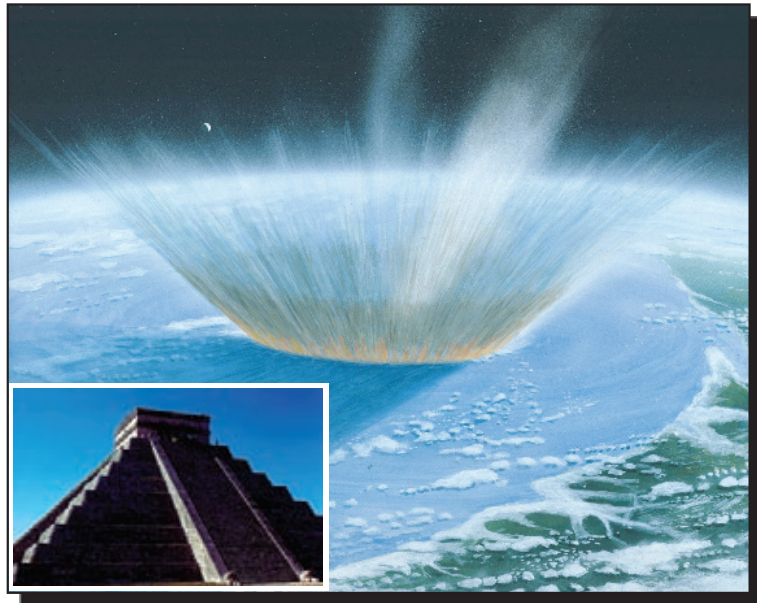
Dear Members & Friends:

Join us and discover the **"Land of the Ancient Maya"**—including the **Chicxulub Meteor impact crater!** See 3,000 years of history come alive and learn about the Meteor 65 million years ago, and its impact on life on earth!

We are privileged to have **Dr. Bruce Love**, a noted Yucatan Maya expert, as our leader on this expedition. Under Dr. Love's excellent leadership, we will explore fascinating Maya sites in Yucatan and learn about the Chicxulub Meteor impact and the astroarchaeological heritage of the Maya sites.

The itinerary includes:

- **Merida**, formerly the Maya capital "T'ho," and in 2000 the first city to be designated an "American Capital of Culture."
- **Uxmal**, a superb Maya site whose architecture shows an influence of highland Mexico. This reflects the distant trade routes during the Maya classic period.
- **Puuc Hill sites**, including Kabah, Sayil, and Labna, with many small buildings with geometric, mosaic patterns across the facades.
- **Dzibilchaltun**, a noted Maya site which spans 2,000 years as a Maya administrative and ceremonial city from 1,500 BC until European conquest in the 1,540's including the astronomical central plaza.
- **Chicxulub Meteor site**, on the Yucatan coast near the ancient center of the impact 65 million years ago.
- **Izamal**, the center of worship to the Sun God and the Supreme God, Itzamna. See the cathedral and walk among dozen of pyramids.
- **Chichen Itza**, the greatest Maya site in the Yucatan. You may walk up the steps of El Castillo for a commanding



view of one of the largest of all Maya sites and discover its many temples, ballcourt, and more!

- **Balancanche**, the mysterious 300-meter-deep cave with ceremonial incense burners, colorful pots, and ritual grinding stones.
- **Coba**, a Maya site with towering pyramids and stelae, but still only about 10-15% uncovered from the luxuriant growth of tropical forest.
- **Tulum**, a Maya site with dramatic sea coast location overlooking the Caribbean, and a major trading center for the Maya, near the resort community of **Cancun**.

We invite you to join us as we discover the ancient Maya wonders of the Yucatan Peninsula and seek answers to long sought questions about the Maya civilization, Chicxulub Meteor, and Dinosaur Extinction.

Sincerely,

Bill Nye
The Science Guy®
Executive Director

**Join our Pre-Trip, November 9-10, 2011 to the
Johnson Space Center in Houston!**
Have a welcome dinner and special lecture.
Tour the Space Center, see the
Saturn V Rocket and Space Shuttle!



Itinerary

Day 1 Houston to Merida, Mexico

Fly from Houston to Merida, capital of the state of Yucatan, and Maya capital—T'ho. Transfer to the *Hotel El Castellano*, in the heart of the historic center of Merida near the main plaza.

Day 2 Uxmal & Puuc Hill

Today, we'll drive across the Yucatan Peninsula to explore Uxmal. Here architecture shows an influence of highland Mexico with geometric mosaics across the upper facades. This dry inland site has a number of images of Chac, the rain god, and numerous reservoirs. The Magician's House has a mouth entrance of a gigantic Chac and is over 125 feet tall. The Governor's Palace was one of Frank Lloyd Wright's favorite buildings, and influenced some of his later work. Evening pool-side lecture on the development and collapse of the Classic Maya civilization. Overnight at *Hacienda Uxmal* (1 night). (B,L,D)

Day 3 Kabah, Sayil, Labna & Merida

We will explore Uxmal's satellite sites this morning on the Puuc Route, including Kabah, Sayil and Labna. These sites are small, but offer many examples of the distinct Puuc architecture that offers marvelous detail and a deeper acquaintance of the Maya civilization. El Palacio at Sayil is a massive three-tiered building with huge Chac masks. A palapa protects a stone stele depicting the fertility god.

Labna is located in a broad flat area with El Palacio in the center and vegetation sprouting out the top. See some of the lime-lined reservoirs used to store water during the dry season for the 3,000 inhabitants of Labna. We will then return to Merida. Lecture on the Chicxulub Meteor impact on the Gulf of Mexico and Yucatan. *Hotel El Castellano* 2 nights). (B,L)

Day 4 Dzibilchaltun & Meteor Site

We will first visit Dzibilchaltun, a Maya archaeological site that spans 2,000 years and was an administrative and ceremonial city. See the Temple of Seven Dolls with an astronomical orientation for the rising of the sun at the equinoxes. Here in 1958 the National Geographic Society sponsored a diving expedition and discovered



Continue our discussion of the Meteor and its impact on the flora and fauna of the world. (B,L)

Day 5 Izamal & Chichen Itza

Izamal is a center of ceremonial worship to the Sun God Kinich-Kakmo and the Maya supreme god, Itzamna. Walk among the temple pyramids, and see the largest Maya pyramid. Some of the Spanish conquistadors built a church on top as a symbol of conquest.

In the afternoon, begin your exploration of Chichen Itza, the most famous and best restored of all the Maya sites in Yucatan. Begin at the base of the great El Castillo (Pyramid of Kukulcan). This allows you to better understand the massive scale of the central buildings of shrines, which housed the nobles, priests, and their staffs. The size of the central complex allows estimates of the populations of the surrounding site as up to 100,000. Imagine the thatched houses, plots of vegetables, workshops, and cooking fires that could be seen from atop El Castillo! The Sacred Cenote (water hole) has



Chicxulub Meteor Crater

The Chicxulub crater is an impact crater 110 miles wide on the northern coast of the Yucatan Peninsula, Mexico. The small fishing village of Chicxulub is near the ancient center of the impact and gives the massive crater its name. It was discovered by petroleum scientists looking for oil in the late 1970's.

The age of rocks and isotope analysis show that this impact crater dates from the end of the Cretaceous Period, roughly 65 million years ago. Evidence from paleontology, geochemistry, geophysics, and sedimentology all support the theory that this impact occurred at the Cretaceous and Tertiary boundary and led to the extinction of about 50% of all species of life on Earth including the great dinosaurs.

The rare element iridium is concentrated at the T-K boundary and also in meteors. It is associated with great heat. Impact features of the surrounding rock add more evidence of the destructive power of this meteor. The Space Shuttle photographed a 3-6 foot ridge denoting a trough on one side and cenotes (sink holes) on the other. These important water sources partly owe their formation to the Chicxulub meteor impact.



yielded thousands of gold and jade jewelry pieces from all parts of eastern Mexico. Overnight at *Chichen Itza Hotel (2 nights)*. (B,L,D)

Day 6 Chichen Itza

We will continue our exploration of Chichen Itza at a leisurely pace. First visit the Temple of the Jaguars and Shields alongside the largest Maya ball court in all of Mexico. The temple has fine columns with carved rattlesnakes and etched jaguars. Inside the temple are mural fragments depicting the Maya in a successful battle. The ball court is one of eight at Chichen Itza and carvings depict players in many aspects of the game.

In the afternoon, explore El Caracol, the observatory with an inner spiral staircase where Maya astronomers may have had windows aligned to best predict the seasons for planting their crops. (B,L,D)

Day 7 Balancanche & Ek Balam

Just a short drive will bring us to Balancanche, a 300-meter cave. In 1960 archaeologists discovered ceremonial incense burners, colorful pots and ritual metates and manos (grinding stones) here. At the entrance to the cave is a botanic garden with many of the native plants of the region.

In the late afternoon, we will take a short ride to Ek Balam, one of the newest and most spectacular discoveries in recent years, with 1000-year old plaster sculptures of monsters and gods, freshly uncovered by archaeologists. *El Meson del Marques (1 night)*, Valladolid. (B,L,D)

Day 8 Coba & Tulum to Cancun

This morning we will explore one of the largest of all Maya sites, Coba. Coba is only about 10-15% uncovered from the heavy forest growth. It was established before Chichen Itza and may have covered 40 square kilometers and supported over 40,000 people. Coba's towering pyramids and stelae resemble the architecture of Tikal more than the much closer sites in Yucatan. Some stelae depict Tikal rulers standing on captives.

This afternoon visit Tulum, the most picturesque of all Maya sites, perched on a bluff overlooking the Caribbean Sea. The seaside fortress would have provided protection and storage of trade goods from other parts of the Caribbean. Depart

for Cancun. Enjoy a farewell dinner in celebration of our journey. *Westin Resort, Cancun (1 night)*. (B,L,D)

Day 9 Cancun to USA

Morning transfer to the airport for flights back to the USA. (Optional extension in Cancun will be offered.) (B)

Leadership

Leading this expedition will be **Dr. Bruce Love**, one of the top Maya archaeologists specializing in the Yucatan.

Dr. Love received his Ph.D. in Maya anthropology from UCLA, and has been traveling and exploring the Yucatan Peninsula since 1971. He has published widely on Maya archaeology and cultural anthropology, especially decipherment of the ancient hieroglyphic writing and contemporary Maya religion. He has written on both the Paris and Dresden Codexs, Yucatec Rituals, and Maya agricultural ceremonies.

Dr. Love will provide interpretation and evening lectures, and will be joined by local guides. He looks forward to sharing his knowledge of the Maya and Chicxulub Meteor impact of the Yucatan Peninsula with you.



Reservations

#1192

Yes! I/We want to join the **Maya World & Great Dinosaur Extinction, November 10-18, 2011**, offered by **The Planetary Society & Betchart Expeditions Inc.** Please reserve ____ space(s) on the expedition. As a deposit, I/we have enclosed a check for \$____ (\$500 per person), payable to Betchart Expeditions Inc. Trust Account.

Name(s): _____ Age ____ Sex ____
_____ Age ____ Sex ____

Address: _____

City _____ State ____ Zip _____

Phone: Home (____) _____

Work (____) _____

Email: _____

Citizenship: ____ USA ____ Canada Other: _____

Member of the Planetary Society: ____ Yes ____ No

Accommodations Preference:

____ Twin ____ Single ____ Twin Share ____ with a friend *or*
____ Nonsmoker ____ Smoker ____ assign a roommate

Signature: _____ Date: _____

Signature: _____ Date: _____

**Please Mail To: Maya/Chicxulub 2011
Betchart Expeditions Inc.
17050 Montebello Road
Cupertino, CA 95014-5435**

Costs & Conditions

Trip Fee: \$3,495 per person based on twin share plus air fare of \$400 + tax from Houston to Merida, with return from Cancun.

Questions: Please call Marisa Eide at **Betchart Expeditions Inc.**

Telephone: (800) 252 4910 or (408) 252 4910

Fax: (408) 252 1444

Email: Marisa@betchartexpeditions.com

Expedition Fee Includes: Land transport; group airport transfers; accommodations twin share; most meals Days 2-8, breakfast Day 9; tips to drivers and local guides; entrance fees; baggage handling; leadership, administration.

Expedition Fee Does Not Include: International air fare (quoted separately); meals on Day 1; dinner on Day 3; beverages with meals; personal items such as laundry, phone calls, alcoholic beverages, sodas, snacks, personal insurance; or foreign airport departure taxes.

What to Expect: This expedition is planned for travelers who would enjoy discovering the Maya heritage of the Yucatan, and learning about the Chicxulub Meteor impact which led to the extinction of the dinosaurs. Activities will be at a leisurely pace suitable for discovery. Food will include a varied Yucatecan and international menu.

This expedition will be a tremendous experience for travelers with an appetite for adventure who would enjoy a chance to explore the rich astronomical and cultural heritage of the Maya including their special interest in archaeoastronomy. We will have a grand adventure of discovery. (No smoking in vehicles, during lectures, or meals, please.)

Air Flights: Air fare quoted is based on a group fare from Houston to Merida, with return from Cancun. All group bookings and ticketing will be handled by Betchart Expeditions Inc. For information about flights, contact **Marisa Eide, (800) 252 4910.**

Accommodations: Are in first class hotels, which reflect the cultural heritage of Yucatan, based on twin share of a room with

private bath. Single accommodations are available for a supplement of \$595. If you prefer a single, or you do not have a roommate, you must pay the single supplement.

Reservations, Deposits & Payments: To reserve a place on this expedition, please mail a deposit of \$500 per person with the completed reservation form to:

Maya/Chicxulub 2011, Betchart Expeditions Inc.

17050 Montebello Road, Cupertino, CA 95014-5435

Balance of land fee is due 60 days before departure.

Cancellations & Refunds: The initial deposit is refundable up to 60 days before departure less a handling fee of \$100 per person. There is no refund after the 60-day period unless your place is resold, then only the \$100 per person handling fee is withheld. There are no refunds for unused meals or other expedition features.

Responsibility: Betchart Expeditions Inc. and The Planetary Society act only as agents for the passenger with respect to transportation and hotels and exercise every care possible. We can assume no liability for injury, damage, delay, loss, accident, or irregularity in connection with the services of any airplane, ship, motorcoach, or any other conveyance used in carrying out the arrangements of the tour. We cannot accept any responsibility for losses or additional expenses due to delay or changes in air or other services, sickness, weather, strike, war, quarantine, acts of God, terrorism, or other causes beyond our control. All such losses or expenses will have to be borne by the passenger, as tour rates provide for arrangements only for the time stated. We reserve the right to substitute another leader of similar expertise or to cancel any tour prior to departure in which case the entire payment will be refunded with no further obligation on our part. The right is also reserved to decline to accept or retain any person as a member of the tour. No refund will be made for the unused portion of any tour unless arrangements are made in sufficient time to avoid penalties. The price of the program is based on current tariffs and rates, and is subject to change. Any tariff, exchange rate, or fuel increases will be passed on to participants. Baggage is carried at the owner's risk entirely. It is understood that the air ticket when issued shall constitute the sole contract between the passenger and the airline concerned. The airlines concerned are not to be held responsible for any act, omission, or event during the time passengers are not on board their plane or conveyance.

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Meteor illustrations courtesy of William K. Hartmann

For reservations, please contact

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Email: info@betchartexpeditions.com

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Society Executive Director
Bill Nye, the Science Guy!

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islands called the Lesser Antilles
on board a 5-masted schooner!