

CENTRAL AMERICA, MARCH 15 – 22, 2015



For information on more trips like this, please visit www.ScientificAmerican.com/Travel

Unwind amidst the natural and cultural landmarks of the Maya world. Join Bright Horizons 24 as we mingle contemporary science and the many cultures, past and present, of Mexico, Honduras, and Guatemala. Explore the beautiful and compelling monuments of the ancient Maya world, and meet the modern Maya people. Experience Central America's Afro-Caribbean culture. While aboard ship, we'll discuss the latest discoveries and wonders of science. Relax with water sports and encounter the UNESCO World Heritage Site Quirigua. Special memories, great lifelong learning, and the simple pleasures of a warm, sunny getaway await you on Bright Horizons 24. Make your reservation today!



Cruise prices vary from \$769 for an Interior State-room to \$5,699 for a Pinnacle Suite, per person (pp) based on double occupancy. For those attending our SEMINARS, there is a \$1,475 fee. Add'l pp fees: gov't taxes and fees (\$123), booking service fee (\$99), cruiseline gratuities (\$11.50 per day), and Tour Leader gratuities (\$65). The Program, cruise pricing, and options are subject to change. For more information email us at Concierge@InsightCruises.com.



Lightning

Speaker: Joseph R. Dwyer, Ph.D.

The Mysteries of Lightning

While lightning is one of the most widely recognized natural phenomena, it remains poorly understood. Learn what we do and don't know about lightning, including the recent discovery that lightning emits bursts of x-rays and gamma-rays. By measuring these high-energy emissions, researchers are gaining a better understanding of this fascinating phenomenon.

Ball Lightning

Ball lightning has been reported by eyewitnesses as a grapefruit-sized glowing sphere as bright as a 60-watt light bulb, often seen along with thunderstorms. Yet little is known about ball lightning, and it has never been replicated in the lab. We'll discuss amazing reports of ball lightning and some of the latest explanations.

Sprites, Pixies, and Other Atmospheric Phenomena

Although we spend our entire lives inside our atmosphere, there are surprisingly many things that we don't know about the air

right over our heads. Learn about strange discharge phenomena dubbed sprites, elves, trolls, pixies, and gnomes, and other amazing atmospheric curiosities.

Lightning Safety

Lightning strikes our planet about 4 million times every day, causing billions of dollars in property damage and killing or injuring many people each year. Despite the dangers, many people don't know how to be safe during thunderstorms. Learn about the harmful effects of lightning, along with lightning protection and safety.



The Maya

Speaker: Joel Palka, Ph.D.

Archaeological Highlights of Maya Civilization

From over a century of excavations in Mexico and Central America, we understand when Maya society formed, how their cities flourished in the tropical forests, and how they lived their daily lives, yet some mysteries of the Maya remain. We'll overview this fascinating civilization and some of the questions we still have.

Maya Hieroglyphic Writing for Everyone

Maya hieroglyphs present exciting details on ancient Maya life including religion, politics, trade, and the organization of society. We'll cover the deciphering of Maya writing, the structure of the texts, and basic knowledge of Maya culture through their hieroglyphs.

Native Maya Perspectives of the Sea

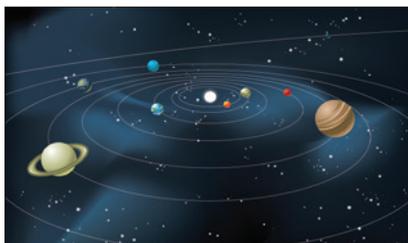
For many of us the sea represents beauty and wonder, but how did indigenous Maya people



view the sea? We'll focus on Maya culture and the sea as seen in painted pottery, monumental sculpture, and colonial-era narratives.

Maya Pilgrimage to Ritual Landscapes

Recent archaeological and anthropological findings have shed new light on ancient Maya travel, religion, and views of the landscape. Islands, mountains, caves, and lakes made up sacred places to them. This session looks at the latest interpretations of ancient Maya pilgrimage, their ritual landscapes, and how these were central to Maya society.



Our Solar System

Speaker: Adriana C. Ocampo, Ph.D.

Cosmic Collision: The Search for the Dinosaur Killer

Around 65 million years ago a massive space rock hit Central America, setting off a biospheric disaster that wiped out the dinosaurs. Take a voyage back in time, via Belize and neighboring Mexico, to explore the impact site of the ancient asteroid that drastically altered the balance of life on Earth.

Our Neighborhood in the Solar System

In this extraordinary time for planetary science we are beginning to understand planetary formation processes that were wholly unknown to us just a short time ago. Guided by the latest scientific insights, we'll discuss how planets form, why asteroids and comets are important, and whether habitable environments exist beyond Earth.

Exploring our Solar System

NASA's robots have now taken us out to 180 astronomical units (AU), or about 180 times the distance from Earth to the Sun. We'll delve into some of their fascinating discoveries, such as the similarities and differences between the gas giant planets and the key role Jupiter plays for Earth.



Neuroscience

Speaker: Lary C. Walker, Ph.D.

Life and its Discontents

Disease is an inescapable fact of life, but our very existence is shaped by our relationship with potential disease agents. We'll explore

the biological origins of disease to understand why the brain is vulnerable to a distinctive constellation of disorders as we age.

Scratching Sheep, Mad Cows, and Laughing Death

Follow the incredible scientific odyssey that began in the 18th century with a mysterious disease of sheep and, in the 20th century, bore two Nobel Prizes. Learn about the prion, an infectious protein and possibly the most controversial molecule in the history of medicine.

Why Old Brains Falter

One of the most feared diseases of old age is Alzheimer's disease, the most frequent

cause of dementia. Learn how the brain changes in normal aging and in Alzheimer's disease, how Alzheimer's emerges and spreads within the brain, and why it is so difficult to stop.

Alzheimer's Therapies: Hype and Hope

No current treatment can stop the relentless progression of Alzheimer's disease. We'll explore the history of rational therapeutic approaches to Alzheimer's and take a frank look at the benefits and shortcomings of existing treatments. Finally, we'll consider how our growing knowledge of brain aging offers hope that an effective therapy is possible.

SCIENTIFIC AMERICAN Travel HIGHLIGHTS OUTER SPACE AND OPEN SPACE IN FLORIDA



BOK TOWER GARDENS:

Sunday, March 22, 11am – 4pm

KENNEDY SPACE CENTER (KSC):

Monday, March 23, 8am – 7:30pm

Continue the Bright Horizons fun with a two-day exploration of two very different central Florida gems: Bok Tower Gardens and Kennedy Space Center.

Bok Tower Gardens — a National Historic Landmark botanical garden and bird sanctuary — is an opportunity to relax amidst subtropical landscape gardens which help preserve 64 rare Central and North Florida plant species. We'll also hear the Garden's 60-bell carillon play.

Reconnect with the spirit and substance of space exploration on our visit to Kennedy Space Center. Guided by tour specialists, explore the world's largest launch facility.

First stop: Launch Control Center. Journey inside the firing room where the last 21 shuttle launches were controlled. Pass by the computer consoles at which engineers constantly monitored the launch controls. See the launch countdown clock and large video monitors on the walls. Enter the bubble room with its wall of interior windows through which the management team viewed all of the proceedings below. Re-live the last shuttle launch, Atlantis mission STS-135 (see takeoff photo, below), while watching the launch footage in the room where the launch became part of history.

Get the right stuff at lunch as we meet a veteran member of NASA's Astronaut Corps, have a hot buffet lunch, and participate in a 30-minute interactive Q&A during "Lunch with an Astronaut."

Onward to the Space Shuttle Atlantis, along with the interactive exhibits that bring to life the complex story of the shuttle and the thousands of people who created and maintained it.

Join us for a memorable look at KSC's role in the endeavor of exploration.

Price: \$899 per person, based on double occupancy; \$1,399 for a single. Kennedy Space Center launch facilities are transitioning to commercial missions and are under construction. Therefore the structures and vantage points we experience and the entire sequence of our day are subject to change. Regardless of our tour route, we will have an excellent tour of KSC!

