

FIRST FACE *of the* AMERICAS

1 x 60 HD



PBS®

INTERNATIONAL

FIRST FACE of the AMERICAS

1 x 60 HD

CONTACT

Tom Koch, Vice President
PBS International
10 Guest Street
Boston, MA 02135 USA
TEL: +1.617.208.0735
jtkoch@pbs.org
pbsinternational.org

Deep underground in a flooded cave system in the Yucatan's remote jungles, divers discover a huge underwater pit littered with a treasure trove of bones: more than 20 extinct species—and a nearly complete human skeleton of a teenage woman. Painstaking investigation reveals a unique time capsule preserving an astonishing glimpse of Ice Age life in America. In *First Face of the Americas*, NOVA makes an incredible journey—from stunning Mexican caves to the Alaskan wilderness, to leading genomics and forensics labs—to pursue groundbreaking new finds that are rewriting the story of the forgotten first Americans who ventured into the vast continent.

On an unlucky day around 13,000 years ago, a 15- to 16-year-old-girl tumbled to the bottom of a 100-foot pit deep inside a huge cave in Mexico's Yucatan Peninsula. Eventually, rising seas flooded the cave, sealing it off from the outside world. The body lay undisturbed until 2007, when a team of divers exploring underwater caves discovered a human skeleton surrounded by pristine fossils of extinct Ice Age beasts—including a mastodon, giant sloths, an elephant-like gomphothere and saber-tooth tigers. NOVA investigates the incredible find by expert divers Alex Alvarez and Alberto "Beto" Nava, a National Geographic Explorers Grantee, who named the girl "Naia," after a sea nymph. NOVA also follows scientists and divers as they return to the site to retrieve the ancient fossils from the cenote known as Hoyo Negro, or "Black Hole."

The phenomenally intact bones are transported to Mexico City and analyzed by an international group of scientists led by forensic anthropologist James Chatters, co-director of the Hoyo Negro Project. Intricate detective work yields provocative findings: the mystery bones are among the most complete and oldest known human remains found in the Americas.

As the story of Naia emerges, her bones provide crucial evidence for researchers developing a detailed new picture of how and when the first pioneering human populations entered the American continent. Scientists have long established that the first Americans were nomadic hunter-gatherers who crossed a land bridge connecting what is now Siberia and Alaska. But the identity of these earliest pioneers and the exact route they took as they spread south has long been a matter of controversy and conjecture. In central Alaska, NOVA investigates tantalizing traces of the hunters' ancient camp sites. Among their most striking finds is one of the earliest ceremonial burials yet discovered in the Americas. At the Upward Sun River site, two young children—one of them still an unborn fetus and the other an infant 6-12 weeks old—were laid to rest together with great care and a sprinkling of red ochre pigment more than 11,000 years ago.

NOVA then visits the lab of Danish geneticist Eske Willerslev, a scientist at the forefront of the study of ancient DNA. Despite the great age and fragility of the Upward Sun River bones, Willerslev is able to extract the complete genome from one of the Alaskan infants. He compares this genetic record to similar DNA data extracted from Naia's bones, meticulously salvaged from the Yucatan cave thousands of miles to the south, as well as to DNA from today's Native Americans. The conclusion of Willerslev's analysis is stunning: the Upward Sun child belonged to a group that were the ancestors not only of Naia but of *all* other Native Americans, both in the distant past and living today. It suggests that Native Americans are descended from a single population of pioneering hunters who probably crossed the Land Bridge from Siberia by at least 15,000 years ago and eventually spread south from Alaska. The finding represents a monumental milestone in the controversial, decades-long efforts to track down the origins of the First Americans.

Besides her role in helping to untangle the mystery of Native American origins, Naia's remains give us intimate glimpses of a vanished Ice Age way of life. Analysis of her bones provides evidence that her diet was based largely on big game hunting, with no hint of marine resources—even though the cave was a short distance from the sea. Chatters thinks this is a hint that Naia's people were relative newcomers to this landscape, unfamiliar with local resources that could have helped them thrive. His conclusion is seemingly confirmed by signs of malnourishment that he observes in Naia's bones and teeth. All the evidence suggests that the life of these First American pioneers was not an easy one. By carefully reconstructing Naia and her world, NOVA gives us a fascinating glimpse of a human individual from the depths of the Ice Age and reveals the *First Face of the Americas*.

CR1838

NOVA

CREDITS

Writer, Producer, Director: Graham Townsley
Senior Science Editor: Evan Hadingham
Senior Executive Producer for NOVA: Paula S. Apsell
Image: WGBH/Francis Cordero Ramirez



PBS

INTERNATIONAL