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# REMARKABLE DISCOVERIES AND VIVID IMAGES ILLUMINATE THE JOURNEY OF OUR EARLIEST ANCESTORS IN NOVA'S COMPREHENSIVE THREE-PART SERIES ON HUMAN EVOLUTION

# BECOMING HUMAN: UNEARTHING OUR **EARLIEST ANCESTORS**

Premieres Tuesdays, November 3, 10, 17 at 8pm ET/PT on PBS www.pbs.org/nova/becominghuman

BOSTON, MA—Nothing is more fascinating to us than, well, us. Where did we come from? What makes us human? The first in-depth televised investigation documenting an explosion of recent discoveries, NOVA's three-part special, Becoming Human: Unearthing Our Earliest Ancestors, examines what the latest scientific research reveals about our hominid relatives—putting together the pieces of our human past and transforming our understanding of our earliest ancestors. Becoming Human premieres Tuesdays, November 3, 10, 17 at 8pm ET/PT on PBS (check local listings).

Featuring interviews with world-renowned scientists, each hour unfolds with a CSI-like forensic investigation into the life and death of a specific hominid ancestor. Becoming Human was shot "in the trenches" where discoveries were unearthed throughout Africa and Europe. Dry bones spring back to life with stunning computer-generated animation and prosthetics. Fossils not only give us clues to what early hominids looked like, but, with the aid of ingenious new lab techniques, how they lived and how we became the creative, "behaviorally modern" humans of today.

"Having an understanding of human evolution is key to so many of the issues we face today," remarks Paula Apsell, Senior Executive Producer for NOVA and Director of the WGBH Science Unit. "This fall, *Becoming Human* will offer a vivid picture of human evolution that highlights the latest groundbreaking discoveries and, more importantly, explains how each new finding fits together with earlier ones to reveal a truly compelling story of survival."

The first hour of *Becoming Human* premieres nationwide on Tuesday, November 3 at 8pm ET/PT on PBS and examines the factors that caused us to split from the apes. The film explores the fossil of "Selam," also known as "Lucy's Child"—an amazing, nearly complete child fossil, which helps shed light on our ancestors' early development and how we began to depart from that of chimps. Paleoanthropologist Zeray Alemseged, who discovered "Selam," spent five years carefully excavating the sandstone-embedded fossil grain by grain. NOVA's cameras are there to capture the unveiling of the face, spine, and shoulder blades of the oldest known child fossil, 3.3 million years old. And, for the first time, NOVA takes viewers "inside the skull" to show how our ancestors' brains had begun to change from those of the apes.

Why did leaps in human evolution take place? *Becoming Human* explores a provocative "big idea" that sharp swings of climate were a key factor in driving human evolution. Layers of rock showing evidence of extreme shifts in climate, combined with fossils unearthed at those locations, indicate that great steps in human evolution were taken in periods when climate was swinging wildly from hot and wet to dry and cold. Today, many think of abrupt climate change as the biggest threat to humanity's future, but this theory suggests that such sudden flips may have been an essential creative engine that helped shape the emergence of our ancestors. Based on new discoveries about ancient climate extremes, paleoanthropologist Rick Potts has formulated a new grand theory: "Variability itself was the driving force of human evolution, and our ancestors were adapted to change itself."

Producer Graham Townsley worked with a team of top movie animators, actors, paleontologists, and a paleoartist, to bring each hominid in the series to life and to create the landscapes of Ice Age Europe. "It is truly unique to have artists and scientists collaborating at this level in order to create the most accurate images of early humans based on fossil evidence," says Townsley. The arduous reenactment process included many months of developing the animation and fitting prosthetic masks. "The result is the most realistic picture at present of our earliest ancestors as well as the tools they used and the environment they lived in," says Townsley.

In gripping forensic detail, the second show in *Becoming Human* investigates the first skeleton that really looks like us—"Turkana Boy"—an astonishingly complete specimen of *Homo erectus* found by the famous Leakey team in Kenya. These ancestors are thought to have developed many key innovations such as hunting, use of fire, and extensive social bonds. NOVA examines a theory that it was long-distance running—our ability to jog—that was not only crucial for the survival of these early hominids on grasslands filled with vicious predators but also gave them a unique hunting strategy: chasing and running down prey animals such as deer or antelope to the point of exhaustion. "Turkana Boy" also marks the first time in human evolution that there is strong evidence of an extended period of childhood and parenting. As anthropologist and primatologist Sarah Hrdy explains, "Because they had longer childhoods there was a wonderful opportunity for big brains to evolve." New analyses of fossil bones and teeth are giving us direct evidence of how, why, and when humans' uniquely long childhood and parenting began and how the empathy of the family bond got started and why it proved vital.

The final program examines the fate of the Neanderthals, our European cousins who died out as modern humans spread from Africa into Europe during the Ice Age. Did modern humans interbreed with Neanderthals and/or exterminate them? The program explores crucial new evidence from the recent decoding of the Neanderthal genome, which until just a few years ago was thought to be an impossible technical feat.

So how did modern humans take over the world? New evidence suggests that they left Africa and colonized the world far earlier, and for different reasons, than previously thought. As for *Homo sapiens*, we have planet Earth to ourselves today, but that's a very recent and unusual situation. For millions of years, as far back as science can take us, many different kinds of hominids co-existed and shared the globe simultaneously, and there was no guarantee that any of them would survive the many threats along the way. For example, at one time *Homo sapiens* shared the planet with Neanderthals, *Homo erectus*, and the mysterious "Hobbits"—three-foot-high humans who thrived on the Indonesian island of Flores until just a few thousand years ago. *Becoming Human* examines why "we" survived while those other ancestral cousins died out. And it explores the question: In what ways are we still evolving today?

NOVA's *Becoming Human: Unearthing Our Earliest Ancestors*, premieres Tuesdays, November 3, 10, 17 at 8pm ET/PT on PBS (check local listings). For more information on the series, visit **www.pbs.org/nova/becominghuman** 

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## Share your evolution film

WGBH Lab has partnered with PBS Engage to launch an "Open Call" on its website for user-generated content around the theme of evolution. The challenge is to create a three-minute video that offers a compelling perspective on the living world. Selected submissions may be presented, via broadcast and broadband, in conjunction with NOVA's spotlight programming on Darwin and evolution. For more information, visit http://lab.wgbh.org/open-call/nova/evolution

#### **Background**

This year marks the 200<sup>th</sup> anniversary year of Darwin's birth and the 150<sup>th</sup> anniversary of the publication of his famous book *On the Origin of Species*. NOVA's fall/winter season will include three evolution-themed programs, each one approaching the topic in a unique way: *Darwin's Darkest Hour* (w.t.) a two-hour scripted drama presentation produced by National Geographic Television, kicks off NOVA's fall season on Tuesday, October 6, 2009; *Becoming Human: Unearthing Our Earliest Ancestors*, premieres Tuesdays, November 3, 10, 17; and *What Darwin Never Knew*, a two-hour presentation, premieres Tuesday, December 29, 2009.

Now in its 36<sup>th</sup> season, NOVA is the most-watched primetime science series on American television, reaching an average of five million viewers weekly. The series remains committed to producing in-depth science programming in the form of hour-long (and occasionally longer) documentaries, from the latest breakthroughs in technology to the deepest mysteries of the natural world. NOVA airs Tuesdays at 8pm ET/PT on WGBH Boston and most PBS stations. The Director of the WGBH Science Unit and Senior Executive Producer of NOVA is Paula S. Apsell.

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NOVA is closed-captioned for deaf and hard-of-hearing viewers and described for people who are blind or visually impaired by the Media Access Group at WGBH. The descriptive narration is available on the SAP channel or stereo TV and VCRs. To order NOVA direct from WGBH Boston Video, visit shop.wgbh.org or call 800.949.8670.

#### **Production Credits**

**Becoming Human: Unearthing Our Earliest Ancestors** 

Senior Executive Producer Paula S. Apsell Written, Produced, and Directed by Graham Townsley Produced by Shining Red Productions, Inc. for NOVA

Pressrooms

pbs.org/pressroom pressroom.wgbh.org/nova

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