MUSEUM OF NATURAL HISTORY
UNIVERSITY OF COLORADO

MUSEUM INSIGHTS



An Impressive New Exhibition on Navajo Textiles

The Joe Ben Wheat Textile Collection is considered to be one of the finest Southwest textile collections in the world. "It contains a number of rare pieces, including Navajo weavings collected by explorer John Wesley Powell during his trips through the West in the 1870s," says Steve Lekson, current Curator of Anthropology at the University of Colorado Museum of Natural History.

Opening May 29 2009, Navajo Weaving: Diamonds, Dreams, Landscapes will bring to light the depth and diversity of the University of Colorado Museum of Natural History's collection of Navajo textiles. "The makers of these textiles created extraordinarily complex and exacting designs, sometimes with a whimsical twist. They were woven for sale and trade, and the threads contain personal and cultural stories expressing the lives and landscape of the Navajo people. The exhibit will take a new look at this extraordinary collection and explore the designs and dreams of weavers who lived primarily in the expansive landscape of the desert Southwest," explains Judy Newland, curator of this exhibit.

Comprised of three separate iterations, each displaying 20-30 textiles, this exhibit will showcase nearly 100 textiles during its course. Most, if not all, of the textiles have not been seen by the general public before. The three iterations of the textiles will be divided into, "Diamonds and Beyond," "Dreams," and "Landscapes," each focusing on a different design element found in Navajo textiles. Many of the textiles featured will be those collected and studied by Joe Ben Wheat during his tenure at the University of Colorado. Joe Ben Wheat served as Curator of Anthropology at the University of Colorado Museum of Natural History from1953 to 1986, as well as an Assistant Professor at the University.

Judy Newland is a faculty associate in museum anthropology at Arizona State University and serves as the Curator of Exhibitions for the ASU Museum of Anthropology. Her textile research is focused on archaeological textiles and what can be learned from the structure and technical aspects of weaving.

From the Director

Strategic planning is in part about setting a programmatic, organizational, and physical direction for the future. To do that, you have to know where you have been, where you are, and where you want to go. We are currently immersed in strategic planning at the Museum, having taken the first steps to gain a better understanding of the environment in which we are operating. We are heading towards developing a strategic framework for research, collections, and the Museum and Field Studies Program, as well as lifelong learning in the formal and informal education arenas. The strategic planning process will take us through the end of this academic year.

Currently, we are planning two major exhibitions. Navajo Weaving: Diamonds, Dreams, Landscapes will highlight the Museum's Joe Ben Wheat textile collection, one of the finest in the nation. It will include three iterations of textiles, most of which have never been on display for the public. This exhibition will open May 29, 2009 and run for one year. Community advisors are helping with fundraising, creating awareness, and proposing programming ideas. The second exhibition is a celebration of biodiversity to be included in the Biology Hall. We are still in the planning phase, but will start to install prototypes early in 2009.

In terms of research and collections activities, our faculty are receiving grants from diverse agencies and foundations, and have research projects as far away as China and India, and as close to home as Niwot Ridge and Boulder Creek. Our Museum and Field Studies students represent a wide range of interests and experiences, which make the Museum an interesting place to be.

We look forward to having you join us in the strategic planning effort and be part of our programming, and for your support of the research and collections efforts at the Museum.

Sincerely,
Patrick Kociolek
Director

Upcoming Exhibitions

Navajo Weaving: Diamonds, Dreams, Landscapes
Changing Gallery, May 29, 2009
This major new exhibition, associated programming, and website will bring to light the depth and diversity of the University of Colorado Museum of Natural History's collection of Navajo textiles.

Plan Ahead

If you would like to make a bequest to the Museum please call the CU Foundation Office of Planned Giving at 303-541-1335 or send a message to planned.gifts@cufund.org.

Do not miss this!

Parent-Child Workshops
In conjunction with the exhibit SILAVUT Inuit Voices in a Changing World
This spring the museum will offer multiple workshops for parents and kids, which focus on the science, art, and culture of Inuit and other inhabitants of the Arctic. Reservations required. For more information call 303-492-1666.

Discover your world

Archaeology Family Day
Saturday, April 18, 1:00 - 4:00 PM
Learn about the peoples of the Earth, past and present, as part of Boulder's Earth Day activities. Explore Colorado's past with CU archaeologists, dig up some artifacts, and create some of your own.

OBJECT OF THE MONTH Discover a new and amazing object every month from the Museum's collections! Visit http://cumuseum.colorado.edu/

Using Mountains to Understand Biodiversity

by Christy M. McCain, Curator of Vertebrate Zoology

Coloradoans are lucky people. We live surrounded by one of the most beautiful mountain landscapes the world has to offer. We commune with peregrine falcons, mountain lions, Roosevelt elk, mountain chickadees, American pika, yellow-bellied marmots, astounding aspen groves, majestic stands of spruce, and precipitous peaks of rock and snow. Our mountains are not only a wondrous beauty, but they can teach us innumerable lessons about the biological processes on the globe.

Where do our mountains harbor the most species? Do most species of birds, mammals, and plants live at mountain bases where grasslands, deserts, and open forests predominate, or at mid-elevations with mixed conifer forests of ponderosa, Douglas fir, aspen, and willows, or at mountain tops with their showy subalpine firs and Engelmann spruce, open tundra, and stunted juniper? It turns out that most species live at mid-elevations in the Rocky Mountains. And this is true for many mountains around the world, although not all.

I study biodiversity on mountains, here in the Rocky Mountains, in the Costa Rican tropical mountains, and all around the globe. I am interested in understanding where biodiversity is high and where it is low, and why. One fundamental question in ecology is "What are the patterns of biodiversity on earth and what mechanisms produce them?"

Paradoxically, researchers have been interested in this question for decades, yet no accepted general explanation for the distribution of biodiversity has surfaced. The need to document and understand what is producing biodiversity patterns is particularly urgent do to current unprecedented rates of global habitat destruction, pollution, and climate change.

My research aims to improve our understanding of mountain biodiversity and underlying mechanisms of diversity, abundance, and distribution of organisms in a search for general theories of biodiversity. So far my research on vertebrates—rodents, bats, birds, amphibians, reptiles—on mountains, has found that where diversity is greatest depends on the ecology of the group and the climate of the mountain. Generally, most species live at elevations where the climate is both warm and wet. The warmest, wettest parts of tropical mountains tend to be at low elevations dominated by tropical forests. In the mountainous western US, the warmest, wettest conditions tend to occur at mid-elevations above deserts and dry grasslands.

Visit the Museum's website (http://cumuseum.colorado.edu/) to read the rest of this article and learn more about how McCain's research is contributing to the understanding of biodiversity.

Bill Harney

Shari Gearheard, Ilkoo Angutikjuak, and Geela Tigullaraq

Community Is What Comes to Mind

Museums in the 21st century are moving beyond the image of staid, venerable institutions of little change, and are increasingly focused on community and being relevant to their respective communities. It is no different for us here at the University of Colorado Museum of Natural History. Looking over our offerings these past few months, the dynamic nature of the Museum is evident, as are our efforts to invite and welcome our community to the Museum.

This past semester, we were very pleased to welcome a number of special guests for exhibit openings, programs, and events. In September, we hosted three residents of Clyde River, Nunavat, Canada —researcher Shari Gearheard; artist, hunter, and research partner Ilkoo Angutikjuak; and translator Geela Tigullaraq— for the opening event for the SILAVUT Inuit Voices in a Changing World exhibition. We also welcomed master storyteller, artist, and writer Yidumduma Bill Harney, a Wardaman Aboriginal Elder, and hosted a roundtable discussion with six CU scientists for the opening of the Evolution: Here and Now exhibition. In November, we partnered with the Handweavers Guild of Boulder to welcome Elizabeth Wayland Barber, Professor of Archaeology and Linguistics, Occidental College, for a talk on the mummies of Chinese Turkestan.

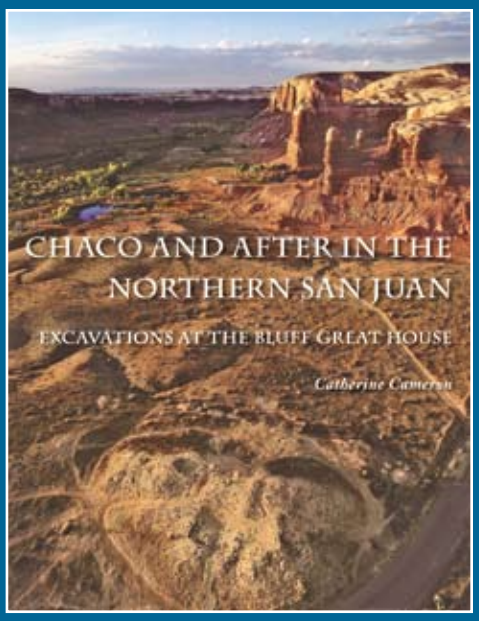
In October, we opened the Return of the Corn Mothers exhibition in conjunction with our commemoration of Day of the Dead, which included a community altars exhibition, family day, and a collaborative evening celebration that included Aztec dancers, poetry readings, folk music, and breakdancers. Our K-12 education program is flourishing with new tours, programs, and workshops; the Girls At the Museum Exploring Science (GAMES) after school program for 4th and 5th grade girls is booked for the entire year, and, thanks to graduate student Laureen Trainer, our volunteer guide program has been revamped and much improved with over 20 new volunteer guides.

It has been a busy and fun semester at the Museum. 2009 promises to be an even more dynamic year, with the opening of a new exhibition, associated programming, and a website on the Museum's Navajo textile collection as well as a completely new and different approach to our Biology Hall. Join our community here at the Museum, and make us a part of your community.

Hot From the Press: Two New Great Books

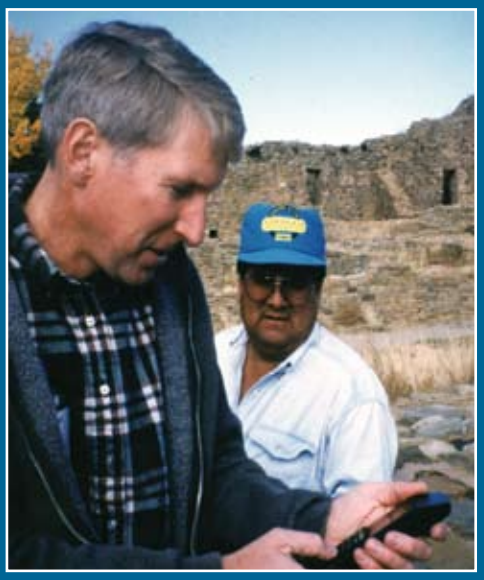
The coming of the New Year will be marked by the arrival of two notable books in Southwestern archaeology written by University of Colorado archaeologists Catherine Cameron and Steve Lekson.

From 1995 to 2004, Cameron of the Department of Anthropology excavated the Bluff Great House site on the San Juan River in southeastern Utah. The Bluff Great House was one of 200 major sites scattered across the Four Corners area, connected to the 12th-century center at Chaco Canyon, New Mexico. The exact nature of that link puzzled archaeologists for decades. Cameron publishes her conclusions in a landmark volume: Chaco and After in the Northern San Juan: Excavations at the Bluff Great House (University of Arizona Press, 2008), hailed as "a rare, welcome case study of ...one of the most interesting and significant developments" in the ancient Southwest.



Chaco and After in the Northern San Juan is an innovative comparative study of the northern and southern portions of the Chaco world (the northern San Juan area around Bluff and the Cibola area around Zuni), which leads to new ideas about population aggregation and regional abandonment in the Southwest.

While Cameron excavated at Bluff, Lekson, Curator of Anthropology at the University of Colorado Museum of Natural History led a study of Chaco Canyon itself. He then turned to an even larger project: a comprehensive synthesis of Southwestern archaeology, A History of the Ancient Southwest (SAR Press, 2009). Early reviews call the new book "among the most provocative and forward-looking books in archaeology today." The book will be released by the middle of 2009.



Steve Lekson, Professor, Department of Anthropology and Curator of Anthropology, University of Colorado Museum of Natural History.

Both Chaco and After in the Northern San Juan and A History of the Ancient Southwest mark the successful conclusions of long, time-consuming research projects —one in the field and the other in the library. Spouses Cameron and Lekson are celebrating by catching up on "deferred maintenance" of their house, garden, and lives, and by planning new research projects.

On April 15, Cameron will give a special lecture on her fascinating work, as well as a book signing at the University of Colorado Museum of Natural History. See the Museum's Events Calendar for more details.

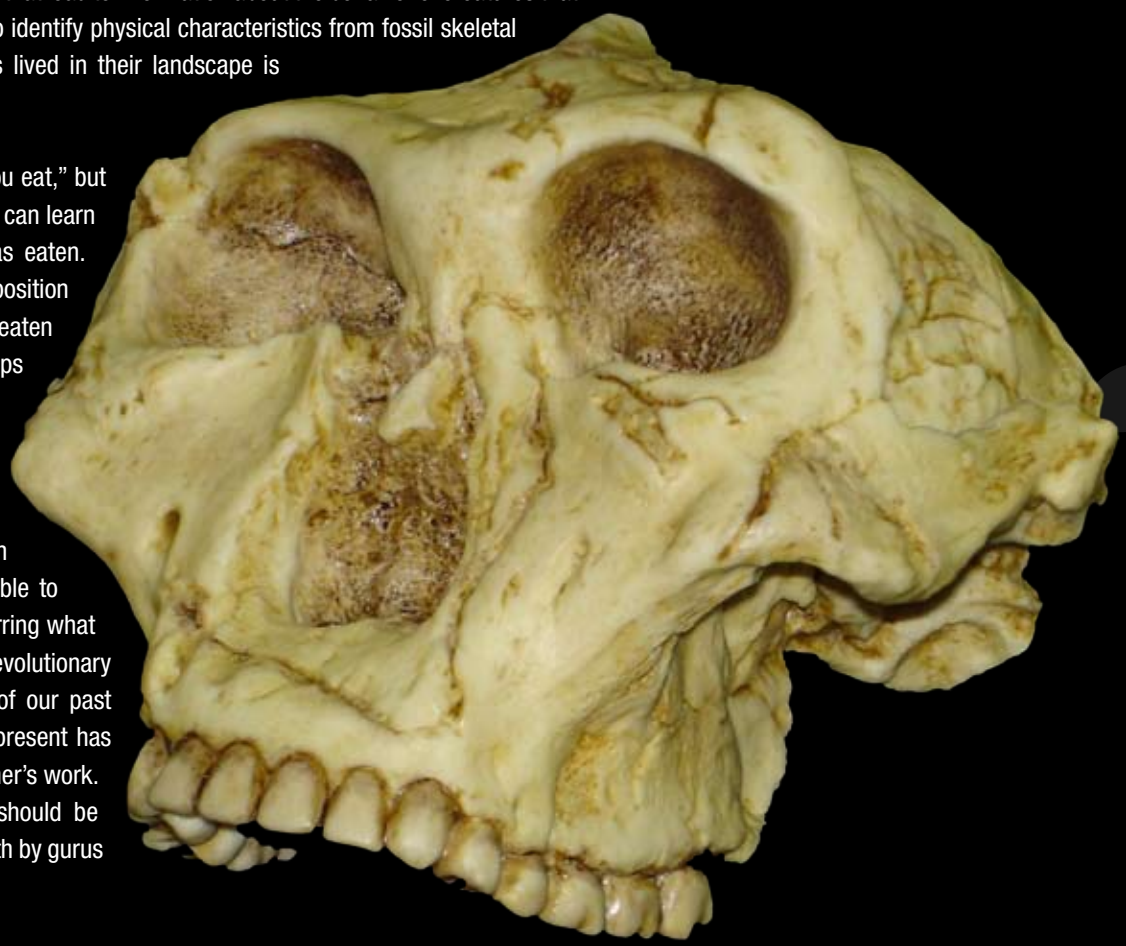
DO YOU WANT TO BE A VOLUNTEER EDUCATOR? Contact the Education Coordinator at 303-492-4843.

On Diet, Evolution, and Being a Scientist

by Cathy Regan, Education Coordinator

What do a mammalian paleontologist, a fish developmental biologist, a population ecologist, a protein chemist, an archaeologist and an astrobiologist all have in common? They are all pursuing knowledge on the seminal questions of how life has evolved. The exhibition Evolution: Here and Now currently on display in the McKenna Gallery, brings together the work of six CU faculty members who approach the study of evolution from these very different perspectives.

One of the featured scientists is Matt Sponheimer, Associate Professor of Anthropology. Sponheimer studies the ecology and evolution of extinct organisms, focusing on those related to early humans. He is most interested in designing tools and approaches that lead to information about the behavior of creatures that lived long ago. While it is straight forward to identify physical characteristics from fossil skeletal remains, learning about how the creatures lived in their landscape is much more difficult.



We've all heard the adage "you are what you eat," but few of us have thought about how much we can learn about an organism if we know what it has eaten. Sponheimer uses lasers to analyze the composition of fossil teeth to determine what was being eaten when those teeth were formed. The tiny wisps of gas released after being hit by the laser leave no visible damage to the rare fossil teeth, yet yield information on what they ate. By comparing the chemical signatures with those of animals alive today, with known diets, behaviors and migrations, it is possible to take the scientifically important step of inferring what life was like for these ancient human evolutionary relatives. The current interest in the role of our past in determining what we should eat in the present has brought much popular interest to Sponheimer's work. He hopes to convey that there can and should be scientific data behind the diets being put forth by gurus of health.

Sponheimer discusses both his research and his thoughts about being a scientist with genuine enthusiasm. Sponheimer is generous in sharing his research with the general public because he believes that "science is of potential interest to more people than people know." This innate curiosity leads Sponheimer to a never-ending list of topics for future study including African mammal conservation, how food goes from being eaten to being incorporated into hair and teeth, and how did we develop bipedalism, for example. Come by and visit the Evolution exhibit to see what fascinating topics the other five featured scientists are working on. The Museum admission is always free.

MUSEUM TOURS Contact the Education Coordinator at 303-492-4843 for information.

Paleontology Students Visit Famous Fossil Site

by Dena Smith, Curator of Invertebrate Paleontology

In September 2008, the University of Colorado Museum of Natural History's Invertebrate Paleontology students and volunteers took a one-day field trip to the Florissant Fossil Beds of Colorado. Dena Smith, Curator of Invertebrate Paleontology at the University of Colorado Museum of Natural History and Assistant Professor in the Geology Department led the Museum group. Florissant is located to the west of Colorado Springs and is one of the world's richest fossil deposits. Over 1,500 fossil insects and 150 fossil plant species have already been described from Florissant. Numerous other invertebrates, microfossils, and vertebrates have also been found and described. Most of these fossils are preserved in the fine-grained rocks that used to be ancient lake beds from the late Eocene (approximately 34 million years ago).

Museum researchers and students visited Florissant Fossil Beds National Monument, where they examined giant petrified tree stumps and explored well-known excavation sites. They studied the rocks found at Florissant to learn about the timing of geologic events that helped create the ancient lake Florissant and ultimately led to the preservation of the organisms in the ancient lake. The group then visited the Florissant Fossil Quarry (http://members.tripod.com/florissantfossils/), a privately owned site, to examine another area of ancient lake Florissant and to collect fossils. Students learned fossil collecting techniques and found an abundance of both plant and insect fossils in these fine-grained rocks.

To read the full article on Smith's research, and learn what she is planning for the future, please visit http://cumuseum.colorado.edu/. You can see some examples of Florissant fossils in the Paleontology Hall, and do not miss Fossil Family Day. Check the Events Calendar for more information.

Invertebrate Paleontology Group. From Left to Right: Dena Smith, Carter Casad, Chrissy Spence, Kevin Webster, Mary Ellen Benson, Blake Stepan and Jenell Thoene. Not pictured: Erin Leckey and George Whitney.

Mary Ellen Benson and George Whitney examining layers of rock for information about ancient Lake Florissant.

NOW YOU CAN DONATE ONLINE! Go to the Museum website and click on "Get Involved."

Membership Application

❍ New ❍ Renewal

CATEGORIES

Regular Membership

❍ Individual	$25
❍ Family	$45
❍ Student	$10
❍ Educator	$20
❍ Sponsoring	$100
❍ Sustaining	$250
❍ Curator's Circle	$500
❍ Director's Circle	$1000

Corporate Membership

❍ Subscriber	$250
❍ Patron	$500
❍ Benefactor	$1000
❍ Mentor	$3000

❍ I am interested in volunteer opportunities

Name

Address

Telephone

E-mail address

❍ I would like to start receiving Museum Insights (biannual Newsletter) via e-mail.

PAYMENT OPTIONS

Please make your check payable to:
The University of Colorado Museum of Natural History

Enclosed is my check for $ _____

Credit Card Payment

Charge my credit card for the amount of $ ____
❍ Visa ❍ Mastercard

Name

Card #

Exp. Date

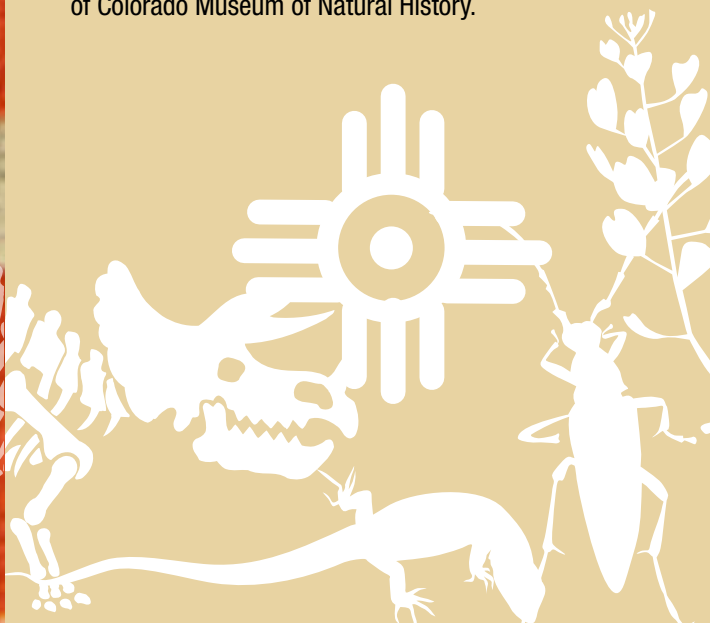
Signature (required for all credit card processing)

Mail to:
University of Colorado Museum of Natural History
218 UCB

Museum Insights

COME SEE WHAT'S INSIDE

Look inside to learn about the upcoming exhibit, Navajo Weaving: Diamonds, Dreams, Landscapes, showcasing the world-renowned textile collection of the University of Colorado Museum of Natural History.



MUSEUM OF NATURAL HISTORY
UNIVERSITY OF COLORADO

218 UCB, Boulder, Colorado 80309-0218

On the Boulder Campus in the Henderson Building at 15th and Broadway. Visitor parking is available at Euclid and 18th at the AutoPark. An RTD bus stop is located at 14th and Broadway.

Museum Hours:
Monday-Friday 9:00 am-5:00 pm
Saturday 9:00 am-4:00 pm
Sunday 10:00 am-4:00 pm

Colorado
University of Colorado at Boulder ™