TALE OF OLD BONES

This is the story of one Snyder Quarry jacket, which came into the hands of Susan and Tony Hunt in early March of 2010. They had recently completed a course in Fossil Preparation and were now on their own. So, each Wednesday at 1:00, they entered FossilWorks, put on their aprons, took out their tools, and got to the slow, tedious, but strangely-mesmerizing work of releasing 220 million year old bones from their surrounding matrix.

By June the jacket was empty and chunks of matrix-clad bones were arrayed in small boxes, patiently awaiting further scraping and cleaning, mostly with the aid of the wondrous air scribe. Many of the bones were quite delicate; so much time was spent gluing back together pieces of bone, which had mysteriously fractured. It did not take long to learn how to unglue fingers from bones or from each other.

Operations were interrupted by a trip to Australia and several grandparent visits, but by early summer most of the bones were free of matrix. Larry Reinhart then paid a visit and said that some bones came from phytosaurs and others from small theropods. This jacket project was completed on July 6, 2011.

Preparators: Susan and Tony Hunt
Text and sketches by Susan Hunt
AUGUST VOLUNTEER FIELD TRIP TO ALBUQUERQUE SEISMOLOGICAL LABORATORY

It was no easy task getting to the Seismology Lab. The access road meandered through Kirtland Air Force Base so there were security measures to be dealt with. Luckily, our fearless Field Trip Chairman, Pat Robinson, had paved the way with arrangements already in place. And it didn’t hurt that three volunteers in the group had Air Force identifications. Crossing the base proved interesting as our party speculated on the purpose of various unusual structures. At the far south end of the base, we passed through another security gate as we crossed onto Isleta Pueblo land, which is leased by the Seismology Lab.

Our gracious host for the day was Leo Sandoval. Leo is a full time employee of the Lab, which has a staff of about 45. He is also a volunteer at our Museum because he periodically gives presentations to groups that want to learn about work done at the Seismology Lab without the difficulties of accessing the Lab, itself.

We were guided through several buildings by Leo, other engineers, geophysicists and a software engineer, as they explained the functions of the Lab and the equipment. We even entered the test tunnels that were blasted out of the granite hill to create a seismically quiet test area. The 50-year-old Albuquerque Lab serves as the premier seismological instrumentation test facility for the U.S. Government Lab personnel develop and test
new seismological instruments and support and maintain more than 180 seismology stations in 60 countries. Most of those stations are part of the Global Seismographic Network Program, which enables the U.S. to monitor earthquakes around the world.

In the instrumentation museum, we examined an early seismometer/seismograph from 1935, which could only give accurate measurements of horizontal displacement in California locations. We followed that with the state-of-the-art Streckeisen models that, in Albuquerque, can detect earthquakes of 4.5 and higher, generated anywhere in the world. Leo also had information on the latest earthquake of interest, the Virginia quake that occurred two days prior to our visit.

The field trip participants had arrived with some knowledge and many questions prompted by interactions with Museum visitors. With their various areas of expertise, the Lab scientists provided in-depth answers to our numerous questions. One of them remarked, “This is a tough crowd,” when he was stumped, but an older scientist had the answer to the more historical questions. Our group was expecting a good tour of the Seismology Lab, but the experience exceeded everyone’s expectations!

Submitted by Mary Moore
Volunteer

SEPTEMBER VOLUNTEER TRIP

On Wednesday, September 7, a tour to the Sandia Crest was arranged by volunteers Flo Sayer, Jim Deal and Carol Deal. Jim provided the overview of Sandia Crest Geology, while Carol talked about the wildflowers. After our great tour, volunteers were able to picnic together with the lunches that they’d brought.

CONTINUING EDUCATION SEMINAR:

“Pale Blue Dot”

SPEAKER: Barry Granoff

November 9, 2011
10:30 - 12:30 AM
MPR (MultiPurpose Room)

Synopsis:

In his book *Pale Blue Dot* (1994), Carl Sagan described a photograph of Earth taken by *Voyager 1*, on February 14, 1990, when the spacecraft was at the edge of the Solar System (3.7 billion miles from us), high above the ecliptic plane. The image contained 640,000 pixels; and Earth occupied less than one of those pixels. It was positioned within a beam of light from the Sun, reflected off the spacecraft, and appeared as nothing more than a tiny point.

Recognizing that the tiny dot was our home, Sagan wondered whether an alien explorer entering the Solar System, after a long interstellar journey, would be able to determine whether there were any life forms on Earth. Sagan made two assumptions: (1) the aliens had no prior knowledge of the existence of Earth;
and (2) there was a *look-but-don’t-touch* galactic ethic.

Jumping forward 17 years from the publication date of Sagan’s book to the present time, we have significantly improved our knowledge of the planets and moons within the Solar System. And we’ve discovered about 500 exoplanets in other star systems within the Milky Way. But we have not yet conclusively found any living life forms anywhere, other than here on Earth.

My talk will provide an elementary overview of astrobiology --what we know and what we don’t know about potential habitable planets and moons. I’ll also address (at least!) two important questions: (1) What do we mean by habitability? (2) How do we know?

Be prepared for a bumpy ride!

*All docents, volunteers, and tour guides are invited to attend.*

Drinks and desert will be served.

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**SPECIAL CONTINUING EDUCATION PRESENTATION**

“Art and Exhibit Electronics Design”

**SPEAKER:** Stan Cohen, PH.D.

**October 4, 2011**

2:00 - 3:00 PM

**MPR (MultiPurpose Room)**

**Synopsis:**

I will talk about the newly-approved Center for Art and Exhibit Design (CAEED)—pronounced “seed”. CAEED will be a hands-on learning and teaching center (institute) for museum exhibit makers and artists.

I will describe what I learned from working with the New Mexico Highlands University media arts faculty and students on the new *Emergence* exhibit.

I discovered that there is a huge knowledge and skills gap between creating computer simulations and graphics and understanding how things work "under the hood"; more significantly, understanding basic electronics, sensors and electromechanical controls. This relates to both stand-alone exhibits with no computer and to computer simulations, such as the ones in Emergence.

I will describe the motivation for starting the design center, but I will spend the major part of the presentation showing what is “behind the curtain” in exhibit electronics, with actual electronic devices. This will not be about computers but about sensors and displays and fun.

*All docents and volunteers invited to attend.*

*Bud Hodgın, Coordinator*

*Continuing Educational Committee*

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**PUBLIC EDUCATIONAL PROGRAMS**

**OCTOBER, 2011**

Lectures - Trips - Coffees - Classes - Tours - Special Events

**Museum Adult and Family Educational Programs**

**LECTURE**

**THE NEW MADRID EARTHQUAKES**

**TWO HUNDRED YEARS LATER:**

What Have We Learned About Earthquakes at the Center of Tectonic Plates?

**Dr. M. Beatrice Magnani**

**Thursday, October 27, 7 - 8:30 PM**

One of the basic assumptions of plate tectonics is that the major plates are rigid and that most of the earthquakes on our planet occur at the boundaries between rigid plates. The New Madrid Seismic Zone (NMSZ), located in the heart of the North American continent (over 2,000 km away from the nearest plate boundary), is a notorious exception to this behavior that has generated large
magnitude
earthquakes (M>7.0),
including
a
series
of
earthquakes in
1811-1812. Scientists
are currently debating
whether the series of
catastrophic
earthquakes that have
been occurring approximately every
500 years in this region will continue
to occur.

Dr. Magnani will discuss the existing data,
proposed models, and the implications for seismic
hazard in the central U.S. The lecture will also
present the results of a new study along the
Mississippi River suggesting that the NMSZ is not
the only fault system that has been active in this
region.

Dr. M. Beatrice Magnani is a seismologist
working on the formation and evolution of
continents. Dr. Magnani received a Ph.D. in 2000
from the University of Perugia, in Italy; worked
at Rice University; and joined the faculty of the
Center for Earthquake Research and
Information (CERI) at the University of Memphis
in 2006. In 2007 she began studying the New
Madrid seismic zone in the central U.S., and,
with colleagues, has designed a way to map
faults hidden beneath the Mississippi River.

Center for Earthquake Research and
Information (CERI) University of
Memphis, Memphis, Tennessee

The NMMNHS is proud to host the
2011 Incorporated Research
Institutions for Seismology and the
Seismological Society of America
IRIS/SSA Distinguished
Lectureship

SPECIAL EVENT

Earth Science Week and National
Fossil Day - Week of October 9-15

• Solar Sunday on October 9
• Class on October 12

Celebrate Earth Science Week 2011!
Held October 9-15, 2011

ESW encourages people everywhere to explore
the natural world and learn about the
geosciences. “Our Ever-Changing Earth”, the
theme of ESW 2011, engages young people and
the public in learning about the natural
processes that shape our planet over time.

National Fossil Day, October 12, 2011, is held
in conjunction with Earth Science Week. NFD is
a celebration organized by the National Park
Service to promote public awareness and
stewardship of fossils, as well as to foster a
greater appreciation of their scientific and
educational values.

Registration required for the October 12 class
only (see below).

Information - www.NMnaturalhistory.org
Questions: August Wainwright: call 505-841-2861 or
e-mail: programs@NMMNHS@state.nm.us

ADULT CLASS

Celebrate National Fossil Day
with this one-session class!

***THE LIVES AND TIMES OF TRIASSIC
AMPHIBIANS***

INSTRUCTOR: Larry Rinehart
Senior Preparator
Paleo-prep Laboratory, NMMNHS
Wednesday, October 12,
9 AM to Noon

Picture a ten-foot-long salamander that has fangs
and weighs nearly a ton. Amphibians have not
always been the toads, frogs, and newts with
which we are familiar. During the Triassic of New
Mexico and around the world, they often reached
heroic proportions and were major players in the
local ecosystems.

We will take a look at several populations of
these animals that NMMNHS scientists have
studied: some from Europe or Africa, and some
from within an hour's drive of Albuquerque. We
will attempt to answer questions regarding their
lifestyle, environment, and behaviors. People
often ask, "How do you know all that from a pile of dead bones?" ... after this class, you will understand how we know what we know about these fascinating animals. There will be touch specimens for the participants, and a tour of exhibits, the Paleo Prep Lab, and Museum Collections.

**Larry Rinehart** While working as an electrical engineer at Sandia National Labs, in 1994, Larry Rinehart began volunteering at the New Mexico Museum of Natural History & Science and studying paleontology at UNM. In 2003, he retired from Sandia and started working at the Museum. He is currently the Senior Preparator at the Museum, where he organizes and conducts digs, manages the fossil-preparation laboratory, and currently is conducting research on fossil amphibians of the Triassic Period.

$35 (10% discount for members and volunteers)

**Pre-registration required.** For more information, or to guarantee your place in this class, register online at [www.NMnaturalhistory.org](http://www.NMnaturalhistory.org)

**Questions:** August Wainwright: call 505-841-2861 or email: programs@NMMNHS@state.nm.us

At registration, you will receive a short supply list.

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**ADULT CLASS**

***PAPER CUTS BY NATURE***

**INSTRUCTOR:** Mary Sundstrom

**Friday:** November 4, 2011

9 AM - 3 PM

Paper cut outs have been created for centuries as a popular folk art in Europe, China, Mexico and Israel. Henri Matisse expanded the use of the medium by covering whole walls with painted paper cut outs.

In this class, you will learn to cut shapes from nature out of colored papers with a craft knife and apply them in layers, mixing a crisp cut edge with the shallow relief of overlapped shapes. Choose your subjects from specimens provided by the museum’s collections. At the end of the class, you will have created a 12"x12" paper cut to take home and materials to make another paper cut art piece on your own.

This class is geared for ages 14 and above. No prior experience in art or paper cuts is required. The class fee includes lunch and most materials.

**Mary Sundstrom’s experience encompasses art instruction, fine arts printer/printmaker, book illustrator with 17 children’s book titles and an Audubon field guide series, as well as numerous exhibit illustrations for the New Mexico Museum of Natural History & Science. She has recently had several shows of her paper cut artworks.**

$90.00 (10% discount for members and volunteers)

**Pre-registration required.** For more information, or to guarantee your place in this class, register online at [www.NMnaturalhistory.org](http://www.NMnaturalhistory.org)

**Questions:** August Wainwright: call 505-841-2861 or email: programs@NMMNHS@state.nm.us

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**ADULT CLASS**

***GEOLOGY OF NEW MEXICO***

**INSTRUCTOR:** Jayne Aubele

**November 16, 2011**

9:00 AM - 12:00 noon

The landscape of New Mexico tells the story of time and changing environments. Oceans once covered the state, camels and saber tooth cats roamed, and volcanoes erupted as recently as 3000 years ago. (Some of NM’s volcanoes are still considered to be active). Do you know what New Mexico and East Africa have in common? Have you wondered about the geological history of the Bisti Badlands, El Morro, or the Mogollon Wilderness? This one-session course will teach you to “read the record in the rocks”, and learn the amazing story of the unique and dynamic geology of New Mexico.

**Jayne Aubele** is Educator/Geologist at the museum. She has mapped and researched the geology of New Mexico and the Southwest as well as the Moon, Mars and Venus. Her focus is volcanoes. She has authored or co-authored many technical articles and popular books/chapters about NM geology, including the Field Guide to the Sandia Mountains. She was geologic technical advisor and on-camera geologist for the KNME-TV programs _Sleeping Monsters, Sacred Fires: Volcanoes of New Mexico, and The Sandias._

$35 (10% discount for members and volunteers)

**Pre-registration required.** For more information, or to guarantee your place in this class, register online at [www.NMnaturalhistory.org](http://www.NMnaturalhistory.org)

**Questions:** August Wainwright: call 505-841-2861 or email: programs@NMMNHS@state.nm.us
CURATOR’S COFFEE

A CAFÉ STYLE PROGRAM

Join us for a casual discussion followed by a themed tour.
Includes coffee, light refreshments, and Museum admission.
Limited to 15 people.

***EVOLUTION***

INSTRUCTOR: Michael Sanchez
Naturalist Center Coordinator and School Programs Educator, NMMNHS
Thursday, October 6, 2011
9:30 - 11:00 AM

Biological evolution, or “organic evolution,” has been defined as “change in the properties populations of organisms that transcends the lifetime of a single individual.” Evolution unites all the fields of biology under one theoretical umbrella; it applies to the past as well as the present. It is the accepted scientific explanation of the diversity of life on Earth, and the science of biology cannot be taught coherently without it. But what is the mechanism by which evolution occurs? What is the evidence? And, most importantly, what is a “scientific theory” and how is that different from a hunch or an idea? If you have always had questions about this topic, here is your opportunity to learn about it. The presentation will include some specific examples from the Museum’s exhibits and collections.

Mike Sanchez has over 20 years of experience working for the New Mexico Museum of Natural History and is currently the Naturalist Center and School Programs Educator. He has a degree in Physical and Biological Anthropology from the University of New Mexico.

$8 (10% discount for members)
Limited to 15 participants.

Pre-registration required. For more information, or to guarantee your place in this class, register online at www.NMnaturalhistory.org
Questions: August Wainwright: call 505-841-2861 or email: programs@NMMNHS@state.nm.us

COMMUNITY SCIENCE
CONNECTIONS

Museums, Libraries, and Families: Working in partnership to bring fun-filled educational events to the community!

CSC is funded by a grant from the Institute of Museum and Library Services and welcomes Rio Rancho Library as a new partner. Look for CSC events at http://libguides.cabq.gov/CSC for an exciting 2011-2012 “season of science.”

CSC Programs are funded by the Institute of Museum and Library Services (IMLS) and managed by the New Mexico Museum of Natural History and Science

SOLAR SUNDAYS

Sundays: October 9, November 13
12:00 Noon – 3:00 PM

Telescopes, sun, and bilingual hands-on activities for the whole family

Free (with Museum admission). Planetarium Presentation at 11:00 AM (Regular fee applies.

No registration required. For information go to www.NMnaturalhistory.org
Questions: August Wainwright: call 505-841-2861 or email: programs@NMMNHS@state.nm.us

MUSEUM TOURS

GUIDED TOUR OF THE MUSEUM
PUBLIC EXHIBITS

Every Monday (September to December)
1:30 PM – 2:30 PM

Take a fact-filled, fun, guided tour of the Museum exhibits. Our docent-led museum exhibit tours for the public are scheduled for every Monday of the month at 1:30 PM and last about one hour.

Limited to 14 participants ages 13 and up.

Free (with Museum Admission)

Registration welcome: go to www.NMnaturalhistory.org, or come for the tour--first-come, first-served. Meet in the Atrium at the stadium seating.

Questions: August Wainwright: call 505-841-2861 or email: programs@NMMNHS@state.nm.us
MUSEUM COLLECTIONS TOURS

Join us for behind-the-scenes tours of our Bioscience and Geoscience collection areas.

GEOSCIENCE TOUR

Friday, November 18, 2011
3 PM - 4 PM

See the largest collection of fossils in New Mexico, and learn about important fossils collected from across the state. Tours are 45 - 60 minutes in length and allow participants to see fossils actively being prepared for exhibits and research.

Free with museum admission
Limited to 20 people.
Children under the age of 13 must be accompanied by an adult.

Registration welcome: go to www.NMnaturalhistory.org
Questions: August Wainwright: call 505-841-2861 or email: programs@NMMNHS@state.nm.us

BIOSCIENCE TOUR

Friday, October 21
3:00 4:00 PM

Bioscience Collections Manager, Patti Gegick, will conduct a tour of the Museum’s biological collections, which includes plants, insects, mammals, mollusks, and birds. Learn the importance of museum collections, how they are used, and how they are preserved and maintained. Tours are 45-60 minutes in length.

Free with museum admission
Limited to 12 persons.
No strollers or children under the age of 7.
Children must be accompanied by an adult.

Reservations welcome: For more information, go to www.NMnaturalhistory.org
Questions: August Wainwright: call 505-841-2861 or email: programs@NMMNHS@state.nm.us

PREHISTORIC PRESCHOOL

Prehistoric Preschool is a Museum program for 3- to 5- year-olds and their adult companions to explore natural history topics in a supportive and fun atmosphere. All activities are child-centered, hands-on, and age appropriate. Classes include two hours of crafts, songs, games, puppet shows, investigating specimens from the Museum’s collections, Museum visits, and a fun and healthy snack.

Fall Session 2: In Prehistoric Time

Move in different ways together with creatures from the past, from burrowing worms to flying pterosaurs. Discover creatures from different ages that shared the same kind of movement and see the similarities. Four sessions include creatures that “dig, stomp, swim or fly.”

Choose your session day:
Thursdays, 10 AM - Noon:
October 20
November 3
November 17
December 1

Fridays, 10 AM - Noon:
October 21
November 4
November 18
December 2

Saturdays, 10 AM - Noon:
October 22
November 5
November 19
December 3

Saturdays, 1:00 PM - 3:00 PM
October 22
November 5
November 20
December 3

All class participants must be accompanied by an adult. No more than two children may be registered per adult companion and no more than two adult companions may accompany any one child. Maximum class size is 15 children and their adult companions.

$90 for the first child, $81 for the second child in the same family.

Museum members receive a 10% discount.

Pre-Registration Required: To see detailed description of sessions and/or register for classes go to www.NMnaturalhistory.org.
Questions: August Wainwright: call 505-841-2861 or email: programs@NMMNHS@state.nm.us
FIRST SUNDAYS

Sundays, October 2, November 6
FREE Admission to the Museum for all New Mexico Residents
9 AM to 5 PM
FREE Admission to the Sandia Mountain Natural History Center
Gates open for the public 9 AM to 4 PM

On the first Sunday of every month, the New Mexico Museum of Natural History and Science is FREE to all New Mexico residents. (Bring NM ID or proof of residence.) Regular admission fees for DynaTheater and Planetarium shows.

Also open to all visitors, on every First Sunday, is the Sandia Mountain Natural History Center (SMNHC), the Museum’s off-site environmental education facility located in the Sandia Mountains.

Visit the Museum on a First Sunday, and experience all that the Museum has to offer. Visit the SMNHC on a First Sunday, attend a special natural history presentation, and experience geocaching, the bird blind, self-guided hikes, picnicking, and solar telescope viewing.

Special Presentations at the SMNHC:

OCTOBER 2: Seasonal Changes in the Sandia Mountains,
NOVEMBER 6: Winter Plants.

No-Registration Required. For directions to the center, go to www.NMnaturalhistory.org
Questions: August Wainwright: call 505-841-2861 or email: programs@NMNMHS@state.nm.us

Cart Refresher Training for Museum Volunteers

Open a cart and make some “museum magic” – and watch the visitors gather around. The museum carts entice visitors and offer them objects to touch and a “focal point” to begin to learn about the science in a particular hall. Plan to attend this cart refresher training – even if you never took cart training in the first place. Open to Docents and Hosts. No lectures, no powerpoints, just hands-on fun. Meet at the cart at the specific day and time.

NEW DATE! October 20 (Thursday) 1-2:30 PM
STARTUP CART
INSTRUCTOR: Tina Hansen

DOCENT SOCIAL

All Museum Docents (and other volunteers) are invited to attend these relaxed get-togethers. They are designed to be an informal and fun way to interact with your “fellow docents”. Talk with your colleagues about the way in which you interpret a specific exhibit, discuss the answer to a strange question you have received from a visitor, or ask me a science content question. Hear about updates on the Museum or learn about upcoming or proposed exhibits.

Light refreshments and occasionally a very short mini-lesson.

Held in the volunteer Lounge.
Questions/comments/ideas: Contact Jayne Aubele
Tuesday, November 1, 2011
9:30-10:30 AM

DOCENT DISCUSSIONS

Exhibit Hall Refresher Training for Museum Docents

Whether you completed Docent Training 20 years ago or more recently, there are always things to be learned and re-learned about the permanent exhibits of the Museum. Put these refresher trainings on your calendar. This will be part refresher training on concepts and part discussions with your fellow docents. No lecture... no powerpoints! Open to all Docents. Meet in the hall at the specific day and time. (Questions: check with Jayne Aubele)
It allows Volunteer Staff Supervisors easier access to volunteer schedules, more useful reporting capabilities, and up-to-the-minute calculations of volunteer hours. Prospective volunteers can submit online applications directly from the museum’s website and those applications can be fed automatically to the database without needing to be manually entered. It will allow the museum to continue to track the volunteer program, without putting too much more strain on Chris Sanchez, who is already performing one-and-a-half jobs as Volunteer Office Manager and School Group Coordinator.

Volunteers were offered an opportunity to interact with the new Volgistics program at four scheduled trainings in late August.

There are two components to the Volgistics program with which volunteers should become familiar:

* **VicTouch** refers to the volunteer login station in the Volunteer Lounge. This station is comprised of a touchscreen computer, a mouse, and an instruction binder. Volunteers will enter their unique ID number in order to login and logout of the station.

  **To properly credit volunteers for hours, it is required that volunteers sign in and out for each shift.**

  From this station, you will be able to:
  
  - check your schedule,
  - sign up for or cancel a volunteer shift,
  - receive email messages, or
  - view your service history.

* **VicNet** refers to the online piece of the program that all volunteers can access from any computer with an Internet connection.

  This component allows you to:
  
  - check your schedule,
  - sign up for or cancel a volunteer shift,
  - receive email messages, or
  - view your service history.

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**NEW VOLUNTEER COMPUTER STATION IS UP AND RUNNING!**

If you’ve been in the Volunteer Lounge lately, you’ve noticed that the sign-in-sheet binders are gone, and in their place is a computer login station where all Museum volunteers can sign in and sign out for their volunteer service. Why the change?

Our previous method of recording volunteer hours was incredibly time and staff intensive. Peggy Owens and Beverlie Huetter spent hundreds of hours each year decrypting volunteers’ unique handwriting, calculating the appropriate time and a half or double time, and logging those hours into the Volunteer Office’s 16 year-old software program.

For most of that time, the program had a full-time Volunteer Coordinator, who knew each volunteer and their specific assignments at the Museum. When questions about sign-in-sheet entries arose, therefore, they were (oftentimes) easily answered. In the sad absence of a full-time volunteer coordinator, the Education Department felt it important to move to a less time-intensive procedure for recording the tens of thousands of hours our volunteers contribute each year to the museum.

**The museum deeply appreciates the services provided by Peggy and Bev over the last many years!** But we certainly understand that we cannot rely on them to continue to log volunteer hours indefinitely.

There are many advantages to the Volgistics program we are currently running. The program is web-based, so it can be accessed from any computer with an Internet connection. Because it is web-based as opposed to being software, we’ll receive upgrades automatically with our subscription to the program.
Volgistics Frequently-Asked Questions

Q: What if I forget to sign in before I start my shift?
A: Call or email Chris Sanchez and let him know. He will update your hours in the computer.

Q: What if I forget to sign out before I leave the Museum?
A: Call or email Chris Sanchez and let him know. He will update your hours in the computer.

chris.sanchez@state.nm.us

Q: What if I don’t see my job assignment reflected once I sign in?
A: Select the “Not Sure” button. This function will allow you to sign in, but will send Chris Sanchez an email to assign your hours in the computer. Call or email Chris and let him know which task you were performing at the Museum and he will make sure they are recorded.

Q: What if I am already signed in, but I need to switch tasks?
A: Return to the login station and enter in your ID number. The computer will offer you a “Switch Assignments” option and allow you to select your next Museum task. If you forget to do this, please call or email Chris Sanchez to let him know.

Q: What if I volunteer outside of the Museum?
A: Our volunteers who contribute service outside of the Museum typically keep a personal record of their hours of service and email that record to Chris at the end of each month. Please continue to do this.

Q: What about the times I attend trainings and continuing education events?
A: Make sure to sign the Attendance Sheet at these events and your time will be recorded. You do not have to sign in at the computer station for trainings and continuing education events.

Q: Does the computer calculate time and a half and double time?
A: Yes. The computer is set up to recognize volunteer service on double time holidays, on weekends, and for special events.

Q: Will there be another login station on the Museum campus soon?
A: We hope to eventually have computer login stations elsewhere on the Museum campus.

Q: What if the computer breaks down?
A: Let Chris Sanchez know. If Chris is unavailable, please let the Admissions Desk staff members know. They will have paper sign-in sheets for volunteers to temporarily record hours until the computer is fixed.

Q: What do I do if I forget my ID number?
A: Let Chris Sanchez know. If Chris is unavailable, please let the Admissions Desk staff members know. They will have a list of all volunteer ID numbers.

Q: To whom do I send my thanks or complaints regarding the new system?
A: Jessica Sapunar-Jursich, the Museum’s Director of Education, is interested to hear feedback from our volunteers about the new program. Jessica can be reached at (505) 841-2836 or via email at jessica.sapunar-jursich@state.nm.us.

Q: How is this program being funded?
A: The Foundation generously purchased the touchscreen computer in the Volunteer Lounge, the first year of service, and the funds to bring me back to the museum to set up the program.

I’d like to take this opportunity to thank the Foundation for doing so, as this program is much needed, and is sure to be a great benefit to our volunteer program!

On a personal note, I want to say how wonderful it has been to come back to the Museum for a brief time, to see so many friendly faces, and to have the opportunity to hear what you’ve all been up to over the past year. It’s been a real treat and I look forward to seeing you all again soon!

Brianne Sisneros,
Volunteer Friend
The next two meetings of the Friends of Paleontology will be held in the Museum Multipurpose Room at the following dates and times:

Monday, 17 October, 2011, 7:00 PM
SPEAKER: Allan Lerner.
SUBJECT: Lagerstattens of New Mexico

Monday, 21 November, 2011, 7:00 PM
SPEAKER: Spencer Lucas.
SUBJECT: A 200 MY Evolution: The History of Crocodiles

Dick Yeck
VP Programs, FOP

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LIBRARY LINE: BOOKS FOR THE NEW EXHIBIT, EMERGENCE

Emergence, the new exhibit focusing on the earliest life, touches on a number of ideas that some of our readers might want to explore in more detail. Here’s a list of exhibit subtitles, and some related books (with call numbers) that you might want to check out.

Formation of the Earth
(timeline)

Earth, the Definitive Visual Guide

This is mostly a geography book, but the chapter “The History of the Earth” provides a 21-page timeline that starts with the Big Bang and continues all the way to the present, covering the formation of the universe and the earth, early life, and key events in geologic history. Also includes great photos and diagrams on geologic processes.

Origin of Life Theories
(genes, metabolism, citric acid cycle)

Cradle of Life: The Discovery of Earth’s Earliest Fossils
Although somewhat older, this book by one of the pioneer researchers on the earliest fossils has a lot of relevant information. Schopf takes a “history of science” approach to the story, and his chapter on “How Did Life Begin?” covers basic biology, cells, genes, DNA, the tree of life, alternative ideas, and origins of life, with simple definitions and diagrams, making it a great place to start for the non-expert.

Life Ascending: The Ten Great Inventions of Evolution
By Nick Lane, 2009, QH367.L36.
The first two chapters of this book are “The Origin of Life” and “DNA.” The author addresses some of the most recent ideas on how life might have developed in deep sea vents, and discusses how cells may have developed and incorporated others cells to develop their modern structure. The book is fairly technical compared to Schopf’s book (longer review in February 2011 VAN).
In discussing DNA as a record of evolution, much of this book is about larger animals and natural selection, but Chapter 3, "Immortal Genes: Running in Place for Eons," deals with the DNA of bacteria and archa and the survival of some individual genes.

This book has several relevant chapters, including “The Tree of Life,” “Life’s Signature in Ancient Rocks,” and “The Earliest Glimmers of Life.”

This book by Albuquerque’s Carol Hill has a chapter by UNM’s Diana Northup on “Microorganisms and Speleothems” that discusses the role of microbes in the sulfur cycle, formation of iron and manganese oxides, saltpeter deposits, and carbonate and silicate speleothems (cave formations).

I hope you enjoy reading about these interesting ideas presented in Emergence.

Laurel Babcock, Librarian

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**VAN SUBMISSIONS**

I am always happy to receive VAN submissions. I enjoy having many articles submitted by a variety of different people. If it weren’t for the efforts of those good people, we wouldn’t have a VAN at all, and we would lose this form of communication among ourselves.

VAN submissions don’t have to be of supreme importance. If you don’t usually send anything in to us but see or hear something amusing and/or interesting to our group, please share.

I do have one request. Please do not format your submission! Use only one font to write it up. Don’t use bold, underlining, italic or indenting features, unless you have something really out of the ordinary to say. In order to give the VAN a more unified look, I regularly change most of those features, and it goes a lot faster for me when I don’t have to remove your formatting before using my own. After all, that is what I’m here for!

The deadline is regularly the fifteenth of the month prior to publication. Our next deadline, for instance, is November 15, 2011, two weeks prior to the publication of our December 2011 - January 2012 issue.

Your suggestions, are always welcome. Please send articles, photos, or suggestions to:

louise@goingourway.net

Thanks!

Louise Harris
VAN Editor
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<td>EARTH SCIENCE WEEK AND NATIONAL FOSSIL DAY</td>
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<td>Prehistoric Preschool * Fall Session 2: Late October to Early December</td>
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<td>EXHIBIT TOUR Docent-led 1:30-2:30 PM</td>
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<td>CURATOR’S COFFEE Evolution 9:30-11 AM</td>
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<td>DOCENT DISCUSSION 10:30-Noon</td>
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<td>LECTURE New Madrid Fault: 200 Years Later 7-8:30 PM</td>
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### November 2011

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VAN Editor: Louise Harris  Oct-Nov VAN Deadline is November 15, 2011.

Email articles to louise@goingourway.net with a copy to chris.sanchez@state.nm.us
Please limit each article to 800 words—less if you have an accompanying photo.

VAN MISSION STATEMENT
To inform, engage, and enhance the experience of NMMNHS Volunteers by:

- Acting as a vehicle of “continuing education”
- Keeping volunteers informed about the Museum
- Relaying news of volunteers and their activities.