

# Volunteer Association Newsletter

## 2015 Volunteer Association Annual Meeting

Please join us for the 2015 Annual Meeting of the NM Museum of Natural History and Science Volunteers Association.

**When:** Wednesday September 9, 2015;  
11:30 AM to 1:30 PM

**Where:** Museum Multipurpose Room

**What:** Lunch at 11:30 AM followed by election of Association Officers for 2015, special awards and discussion of exciting plans for 2015 to 2016.

The Volunteers Association will provide the main dish; members will provide side dishes and desserts. If your last name begins with letter A to L: please bring a side dish

If your last name begins with letter M to Z: please bring a dessert.

Make your reservation by signing up in the Volunteers Lounge OR responding to the survey that will be sent out next week (But not both!).

Here is the slate for the upcoming 2015-2016 NMMNHS Volunteer Association Board that will be voted in at the Annual Meeting of the NMMNHS Volunteer Association Board on 9/9/15.

Malcolm Siegel, President  
Miriam Zyskind, Treasurer  
Kathleen Blake, Secretary  
Sheila Bednarski, President-Elect

## EDUCATION PROGRAM TRAINING WORKSHOP

Do you enjoy delving into the exciting world of hands-on science that uses all of your senses? The Education Dept. needs your help nurturing curiosity about the natural world around us!

Join us for a two-part education program training workshop that will:

- provide facilitation techniques,
- explore all of the programs the Museum offers,
- and, provide background content that is both rich and fulfilling.

This workshop is required for all who facilitate or teach education programs.

**Sign up for one of the following two sets of workshop dates in the volunteer lounge**

## Another Fossil Hunting Trip to Kinney Brick Quarry by FOP

Twenty eight members of the New Mexico Friends of Paleontology (FOP) participated in a working field trip on June 20, 2015 collecting fossils at Kinney Brick Quarry. The quarry is located on private land about 9 miles south-southeast of Tijeras, New Mexico and access was made available by special permission.

This quarry provided excellent exposures of the late Pennsylvanian (~ 300 million years ago) Pine Shadow Member of the Wild Cow Formation in the Madera Group. Many of the participants have collected fossils at this location for the Museum before. They have developed skills for chipping out rock slabs and carefully splitting them apart to reveal the treasures inside and they taught new members these techniques.

Tom Suazo and Amanda Cantrell had a goal of excavating an area of the quarry recently newly exposed by Kinney Brick Company. FOP members found and collected as yet unidentified plants, as well as specimens of walchia, sphenopteris, and neuropteris. FOP members also found a palaeoniscoid fish. There were lots of micro fossils collected, including some neat little shrimp. All specimens are now in the Museum's collections.

The weather was becoming very hot but we left the quarry early before the heat became unbearable. There was much comradery as volunteers worked together and traded stories.

Submitted by Mary and Jim Moore



Everybody digs



## Concerning the Tablets

Thanks to all who have been checking them out. If just starting, take them slowly, reading the Word files especially found in Mass Extinctions, Atrium, and Jurassic, just one topic at a time, until you are comfortable sharing the pictures that follow with visitors. Do not be overwhelmed by the total content! And the database grows almost constantly. You can already see "Pluto" under Space Sciences, and a video clip there of the evolution of the solar system for the first BILLION years (the Nice -- pronounced "Neece" model).

Last Saturday in Jurassic, I had a crowd of about 10-15 people just standing in front of the cart for about 30 minutes taking in one topic after another, suggested by questions and the flow of information. Everything from dino feather colors to the T-rex growth curve to Sauropod nests to Mass Extinctions, etc., etc. Visitors *love* them.

The most recent load is the 10 August version, which has added paleoclimate maps from the website of Chris Scotese, who has worked on plate tectonics since he was a student at the University of Chicago (~1980) when he sent me a little flip book that animated the motion. Please read the Whats New file under the "Made" folder at the top of the home page. If your copy is earlier and you need another link to Dropbox, please write me. Comments and suggestions as to content are also welcome.

Dwight Jennison



## September Continuing Education Seminar

By and for the NMMNH&S Volunteer Association.

**September 1, 2015; Multi-Purpose Room; 10:30 a.m. - 12:30 p.m.**

**No Sign-up is necessary. Please Come.**

Two presentations:

1) *Detonography - The Explosive Art of Evelyn Rosenberg.*

Have you noticed the mural in the lobby "Footprints through Time"? Local artist Evelyn Rosenberg will explain how it was made using explosives. In 1985, she developed a technique named Detonography and today her art can be seen in many places throughout the country. The process uses explosives to make metal sculpture and produces unique work that cannot be created any other way.

2) *Arsenic - New Mexico's Geology's Challenge to Human Health*

Naturally-occurring arsenic levels are relatively high in many drinking water sources in New Mexico. In 2006, the Maximum Contaminant Level for community water systems was lowered from 50 parts per billion to 10 parts per billion, requiring both small communities and the City of Albuquerque to install costly water treatment systems. Learn how the geology of New Mexico is related to this public health and policy issue. Presented by Malcolm Siegel, PhD, MPH, Adjunct Faculty School of Medicine,



## September – December, 2015

### Museum Adult and Family Educational Programs

#### September

September 6 • First Sunday

September 10 • Prehistoric Preschool

Fall session 1 begins

September 18 • special event

State Fair

September 19 • for Teachers

Tree Ring Workshop

September 20 - 27 • space science week

Special events all week long

September 20 • space science

Solar Sunday

September 21 • space science

Lunar Monday

September 24 • Lecture

New Martian Meteorites

September 27 • space science

Total Lunar Eclipse

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**Carl B. Agee, Ph.D.**

**Director, Institute of Meteoritics (IOM)**

**Curator of Meteorites IOM**

**Professor, Department of Earth and Planetary Sciences, UNM**

**Thursday, September 24, 2015**

**7-8:30 PM**

The only samples of Mars that we have on Earth are a small number of meteorites. A meteorite formally named NWA 7034 (and informally called Black Beauty) was found in the western Sahara in 2011; and this meteorite has changed some of our ideas about Mars. Dr. Carl Agee led the team that was the first to recognize that this meteorite was from Mars and yet was unlike any of the other 100 or so known Martian meteorites. Join Dr. Agee as he discusses what we know about Martian meteorites and what they tell us about Mars.

After the lecture, attendees will get a private look at the Museum's special exhibit "It Came from Mars." The exhibit contains Martian meteorite specimens, including a piece of Black Beauty, on loan from the Institute of Meteoritics.

**Dr. Carl Agee** is the Director of the Institute of Meteoritics (IOM), Department of Earth and Planetary Sciences, UNM. Founded in 1944, the IOM was one of the first institutions in the world devoted to the study of meteorites with state-of-the-art laboratory facilities staffed with research scientists and students. The IOM has an extremely valuable meteorite research collection and is currently building a new Meteorite Museum that will be open to the public. Dr. Agee's research career has included time as the Chief Scientist for Astromaterials at NASA Johnson Space Center. His major areas of research are the origin and evolution of planetary interiors and high-pressure experimental techniques in mineralogy.

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He earned his B.A. from the Univ of California at Berkeley and his M.A., M.Phil. and Ph.D. from Columbia University.

Held at the New Mexico Museum of Natural History & Science 1801 Mountain Rd. NW, Albuquerque, NM 87104 • (505) 841-2800 Visit: [www.nmnaturalhistory.org](http://www.nmnaturalhistory.org)

\$6 (\$5 members, \$4 students) Museum Volunteers are FREE

Purchase in advance online to guarantee your seats, go to [www.NMnaturalhistory.org](http://www.NMnaturalhistory.org) or purchase tickets at the admissions desk the night of the event. Doors open at 6:15 pm

## Curator's Coffee

A Café Style Program

Join us for a casual discussion. Limited to 15 people and includes coffee, light refreshments, and Museum admission.

## Future Mars Exploration

**Zachary Gallegos**

**Mars One Candidate**

**Thursday, October 8, 2015**

**9:30 – 11:00 AM**

Join Zach Gallegos, New Mexico's only candidate for the planned Mars One human settlement mission to Mars. He will talk about current/upcoming Mars missions, give an overview of his Mars research, and end with the current plans for human exploration, including the Mars One Program. There will be lots of time for discussion and Q&A.

**Zachary Gallegos** was born and raised in Albuquerque, NM and was inspired by mountains, volcanoes, and the Rio Grande rift. He earned a B.S. in Earth and Planetary Science with honors from UNM in 2010. In 2014 he was selected from a pool of over 200,000 applicants worldwide to be part of Mars One, a program that plans to send the first humans on a one-way voyage to the surface of Mars as early as 2026. Zach is currently among the top 100 candidates for the Mars One program.

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**\$8** (10% discount for members and volunteers)

**Pre-registration required. Limit 15 participants.** To guarantee your place, register online, go to [www.NMnaturalhistory.org](http://www.NMnaturalhistory.org)

**Questions:** August Wainwright email: [programs.NMMNHS@state.nm.us](mailto:programs.NMMNHS@state.nm.us) call (505) 841-2861

## Special Events

### State Fair

**Science and Tech Day**

**Friday, September 18**

**9 am – 3:30 pm**

Join us at this year's State Fair for Science and Technology Day. Drop by the Museum table on Main Street for activities, specimens, and information.

Free. (With that day's State Fair Admission)

### Mars Fiesta

**October 8, 2015**

**1:00-3:00pm**

**Celebrate Mars with us.** Visit our Space Science wing and revel in everything about Mars with hands-on activities for all ages and lots of Mars information and images to take home. Meet New Mexico scientists who are working on Mars Missions, including the Museum's rover science team member Dr. Larry Crumpler. We will also have scientists from the Institute of Meteoritics to help interpret our "It Came from Mars" exhibit and introduce you to meteorites and meteorwongs. You will have a chance to talk one-on-one with geologist Zachary Gallegos who is the only New Mexico candidate for the Mars One Project that plans to send humans to Mars.

**FREE** (with Museum admission)

**Questions:** August Wainwright email: [programs.NMMNHS@state.nm.us](mailto:programs.NMMNHS@state.nm.us) call (505) 841-2861

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## Field Trip

Visit the VLA!

**Saturday, October 24**

**Meet at the Museum at 8:30 a.m.**

**Return approximately 7 p.m.**

**Trip cost includes transportation and box lunch.**

**Trip Leaders: Jim Greenhouse, Director of Space Science, NMMNHS**

**Judy Stanley, Education Officer,  
NRAO/VLA**

Visit the Very Large Array radio astronomy observatory when the enormous dish antennas are in their closest configuration and easiest to see. The day starts with an orientation video at the museum that outlines the observatory's operation. The van will depart shortly afterward and we will stop for lunch at a picnic site outside Magdalena, NM. In addition to visiting the VLA's museum, gift shop, outdoor displays, and Bracewell Sundial, the day includes a behind-the-scenes tour of the operations center. Dress appropriately for being outside and walking for at least ½ hour.

Lunch, snacks, and transportation are included.

**Cost: \$35 (Members \$30). Space is limited. Adults Only. Trip is limited to 12 participants.**

**To guarantee your place, register online, go to [www.NMnaturalhistory.org](http://www.NMnaturalhistory.org)**

**Questions:** August Wainwright  
email: [programs@NMMNHS@state.nm.us](mailto:programs@NMMNHS@state.nm.us)  
call 505-841-2861

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## Adult Class

### The Geologic Story of the Albuquerque-area

**Instructor: Jayne Aubele**

**Thursday, October 1**

**9:00 a.m. – 12:00 noon**

The Albuquerque-area has an amazing geological story that includes mountains, volcanoes, and a river that are all linked to a continental rift. Come and learn about your city. No prior knowledge of geology is required. Class is geared for adults.

**Jayne Aubele** is Adult 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. She has authored or co-authored technical articles and popular books/chapters about N.M. geology, including the *Field Guide to the Sandia Mountains*; and was geologic technical advisor and on-camera geologist for the 2008 KNME-TV program, *The Sandias*.

**\$45** (10% discount for members)

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

**Questions:** August Wainwright  
email: [programs@NMMNHS@state.nm.us](mailto:programs@NMMNHS@state.nm.us)  
call 505-841-2861

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

## ::: STARTUP Studio Workshops :::

For families (children age 6 and up), students, and adults

Workshops are held in the Highlands Classroom at the Museum

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**Instructor: Allie Burquist, New Mexico Highlands University Americorps Intern**

**Origami Jack-o-lanterns**

**Saturday October 24 • 1-4pm**

Combine traditional origami with simple circuitry for a new twist on an old Halloween classic. Learn the basics of electronic paper art.

**Allie Burquist** is a Cultural Technology AmeriCorps intern focusing on using art in STEM programming at the museum. She is a New Mexico Highlands University graduate of the Media Arts and Technology Program.

**\$15 (Members, 10% discount) for each class**

**Pre-registration required.** Go to [www.NMnaturalhistory.org](http://www.NMnaturalhistory.org)

Questions: Contact August Wainwright at [programs.NMMNHS@state.nm.us](mailto:programs.NMMNHS@state.nm.us) or call 505-841-2861

## New Exhibits

### **NatureScapes Photo Salon: "Colors of Nature in New Mexico"**

**Opening October 23**

This year's theme celebrates the many beautiful colors occurring naturally in the land, sky, minerals, flora and fauna of New Mexico. Photographs will be selected for display from photographers of all levels of experience. Prepare to be amazed by the colors of enchantment.

**No preregistration required.**

**FREE with Museum admission.**

## Space Science Events

### **Space Week**

**September 20 – 27, 2015**

### **NM Museum of Natural History and Science Planetarium**

Explore our solar system, from the moon to the sun and out to planets recently visited by robotic explorers.

**September 20:**

**Solar Sunday | 10 a.m. – 2 p.m.**

Celebrate the equinox by seeing the sun safely through filtered telescopes and enjoy special activities and programs exploring the sun's energy.

Included in Museum Admission. Canceled if the sky is cloudy.

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**September 21:**

**Latest News from Mars | 3 p.m. in the planetarium | Dr. Larry Crumpler** will share recent findings from the Mars Opportunity Rover.

\$4 per person

**Lunar Monday | 8:30 – 9:30 p.m.** | Observe the moon and other objects in the night sky through the observatory telescope.

**Admission by Donation. Canceled if the sky is cloudy.**

**September 23:**

**Greetings from Pluto | 3 p.m. in the planetarium | Planetary geologist Jayne Aubele** will interpret some of the recent discoveries made by the New Horizons spacecraft.

\$4 per person

**September 24:**

**Special Showing of *Sunstruck* | 3 p.m. in the planetarium | Observe the sun safely** while entering the museum, then see a special planetarium show that describes how our star works. \$4 per person

**Evening Lecture**

**New Martian Meteorites | 7 p.m. in the planetarium | Dr. Carl Agee** will describe what we've learned about Mars by studying meteorites from that planet.

\$6 (\$5 members, \$4 students) See "September 24 Lecture" for more details about this event.

**September 25:**

**Special tour of Space Science Exhibits | 3 p.m. Meet in front of the ViewSpace theater** | Enjoy a guided tour through the exhibits in the Space Science area of the museum. \$4 per person

**September 26 :**

**Eclipse Preview | 3 p.m. in the planetarium |** Find out what causes an eclipse, why the one happening the next day is special, and when others will be visible in the coming years.

\$4 per person

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**September 27:**

**Total Lunar Eclipse | 7 – 9:30 p.m.** | Don't miss the last total eclipse of the moon visible until 2018! See the moon turn red through several telescopes.

Admission by Donation. Canceled if the sky is cloudy.

**Lunar Mondays**

**Mondays, September 21 and October 19 from 8:30 – 9:30 p.m.**

Join members of The Albuquerque Astronomical Society in studying the moon and other sky objects from the museum's observatory. Each month focuses on a different lunar feature.

Admission by Donation

*Canceled if the Sky is Cloudy*

**First Sundays**

**Sunday, September 6, October 4**

**9:00 am–5:00 pm**

**FREE Admission to the Museum for all New Mexico Residents**

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.

Guided Tour of the Museum Public Exhibits

Every First Sunday • 1:30–2:30 pm

Take a free, fact-filled, fun, guided tour of the Museum exhibits.

Limited to 14 participants ages 13 and up

Tours are first-come, first-served

**Special Event at the Museum on October First Sunday**

**Sunday, October 4 • Mineral and Rock ID • 1-3 pm**

FREE to New Mexico Residents

**First Sunday Special Events....****Mineral and Rock ID**

**October First Sunday**

**Sunday, October 4**

**1:00 – 3:00 pm**

Bring your rocks and minerals to the Museum to have them identified by experts from the Albuquerque Gem and Mineral Club. Learn about the minerals on display in our mineral gallery. Watch as the Gem and Mineral Club members demonstrate cutting and polishing minerals in the Museum's Lapidary Studio.

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Games and hands-on activities for the family. Complete a family scavenger hunt for rocks and minerals throughout the Museum.

FREE to New Mexico Residents

**Museum Tours****Museum Exhibit Tours**

**Mondays • 1:30–2:30 pm**

Take a docent-led, fact-filled, fun, guided tour of the Museum exhibits. Limited to 14 participants ages 13 and up. Meet in the Atrium at the stadium seating.

**Free** (with Museum Admission)

**No registration required.** First-come, first-served.

**Prehistoric Preschool – Fall Sessions**

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.

All class participants must be accompanied by an adult. No more than two children per adult companion, and no more than two adults per child. Permission for attendance by siblings younger than 3 is made on a case-by-case basis with Early Childhood Educator. Maximum class size is 12 children and their adult companions.

**Fall Session 1: Paleontology 101**

Be a paleontologist! We begin with a class about the tools, then a class about the fossils, and end with classes about prehistoric reptiles and mammals. You may have seen fossil skin, but have you heard about the fossil fur found in our state? Includes optional Sunday Fossil hike.

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**Fall Session 2: Rocks & Volcanoes**

What's the difference between a pink and a black rock? How does a volcano explode? Will extinct volcanoes ever erupt again? Are Mars red rocks like New Mexico red rocks? Come explore rocks and volcanoes of New Mexico and Mars!

Includes optional Sunday Rock Hunt.

Classes are every other week. Choose Thursday, Friday, or Saturday morning 10 a.m. to noon, or Thursday or Saturday afternoon 1 to 3 p.m.

**Preregistration is required. Scholarships available.**

**\$90** for first child, **\$81** for second child in the same family. **10% discount for Museum members or Museum volunteers.** Scholarships available.

**Pro-rated registration** available after classes have started.

**For more information or to Register for classes, go to**  
<http://www.nmnaturalhistory.org/preschool.html>

**Questions?** August Wainwright at

programs.nmmnhs@state.nm.us OR **(505) 841-2861**

**Prehistoric Preschool – Winter Sessions**

Prehistoric Preschool will be welcoming back Ms Heather for our 2016 classes. Ms CC will be coordinating the Family Garden Workshops. The Preschool classes may spend time with her in the Garden.

Visit [www.nmnaturalhistory.org](http://www.nmnaturalhistory.org) after October 15 for new Prehistoric Preschool offerings beginning in January!

**Young Explorers Winter Holiday Camp 2015-2016**

Become a New Mexico Museum of Natural History and Science scientist for a day! Investigate Museum exhibits and explore geology, biology, technology, and space science.

Each day's session is a stand-alone science camp. Sign up for one session, more than one, or for all of them.

For camp descriptions, schedules, and registration, go to [www.NMnaturalhistory.org](http://www.NMnaturalhistory.org) after October 15 for more information, cost, and registration.

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**For Teachers Only****Workshop on Tree Rings**

**September 19, 2015**

**9:30am – 12:30pm**

**Free lunch served 12:30pm - 1:30 pm**

**For teachers of grades 5-8**

Learn about the interaction of people, water, trees, and fire in Southwestern ecosystems; basic climate science; and simple data collection techniques for students.

**Place-based science for teachers.**

**Especially for teachers from** mountain schools near Albuquerque, Santa Fe, and Los Alamos and for outdoor informal science educators.

Included in the workshop:

- Free copy of "The Tree Ring's Tale" by John Fleck
- Journal
- Rain gauge
- Angle gauge for measuring tree density

**To apply:**

**Send an email to:**

***fiana.shapiro@state.nm.us* by September 8.**

Include name, school, subject (if applicable), contact information, and a statement describing how the workshop fits with your broader goals or program.

Workshop will be held at the Sandia Mountain Natural History Center, Cedar Crest, NM

**FREE (but you must apply to attend)**

**Registration deadline is September 8.**