

# Geological Society of Nevada, Southern Nevada Chapter

May 2010 Newsletter

## RESIDENT

Swapan Sahoo  
UNLV Graduate Student  
sahooos@unlv.nevada.edu

## VICE PRESIDENT

Shashank Bonde  
UNLV Graduate Student  
bondej@unlv.nevada.edu

## TREASURER

Chris Riecken  
Consultant  
criecken@cox.net

## SECRETARY

Jacki Meyers  
UNLV Graduate Student  
meyers2@unlv.nevada.edu

## NEWSLETTER EDITOR

Laura Eaton  
UNLV Graduate Student  
eatonl4@unlv.nevada.edu

## WEBMASTER

Ethan Eck  
UNLV Graduate Student  
eckn@unlv.nevada.edu

## Geochemical aspects of the Douchantuo Formation, South China

**SPEAKER:** Swapan Sahoo  
**DATE:** Thursday, April 29 2010  
**LOCATION:** LFG Rm. 105  
University of Nevada - Las Vegas  
**TIME:** Social half-hour at 6:45 pm  
Meeting business at 7:15 pm  
Talk at 7:30  
**DONOR:** Geotemps

Happy Spring GSNER's! Spring is in full effect, and with that comes the end of the school year and the end of this season's GSN Southern Nevada meetings! This month's speaker is the current GSN Southern Nevada chapter president, Swapan Sahoo. He will be telling us a bit about his current dissertation research here at UNLV.

This month's newsletter includes the fourth edition of "Get to know your fellow GSN members" features Dr. Gene Cline, a professor of economic geology at UNLV. Thanks for sharing your story Dr. Cline! The newsletter also contains photos from the 5<sup>th</sup> Annual GeoSymposium held in the UNLV Geoscience Department. If you couldn't join us this year, hopefully you will be able to next year, we would love to have you!

As this year's season comes to an end, let's thank all who make the Southern Nevada chapter of GSN a success. Thanks to our officers, all of our members, and our sponsors for making this year a great one!

Wishing you a great May!  
-Laura Eaton, Newsletter Editor

Geological Society of Nevada  
Southern Nevada Chapter  
University of Nevada, Las Vegas  
4505 Maryland Parkway, Box 4010,  
Las Vegas, NV 89154-4010  
<http://geoscience.unlv.edu/GSN/gsnsc.htm>

---

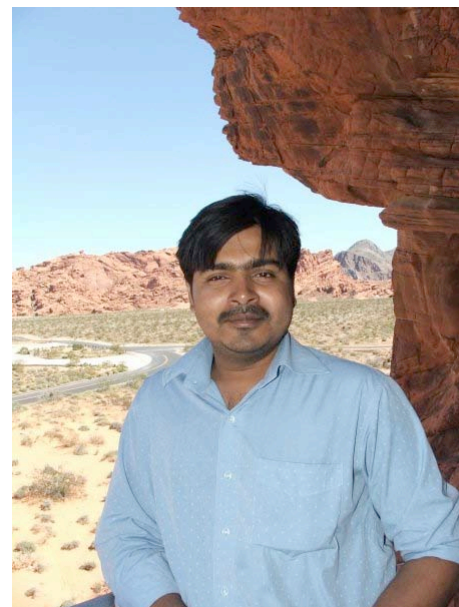
# Geochemical aspects of the Douchantuo Formation, South China

Speaker: **Swapan Sahoo**

---

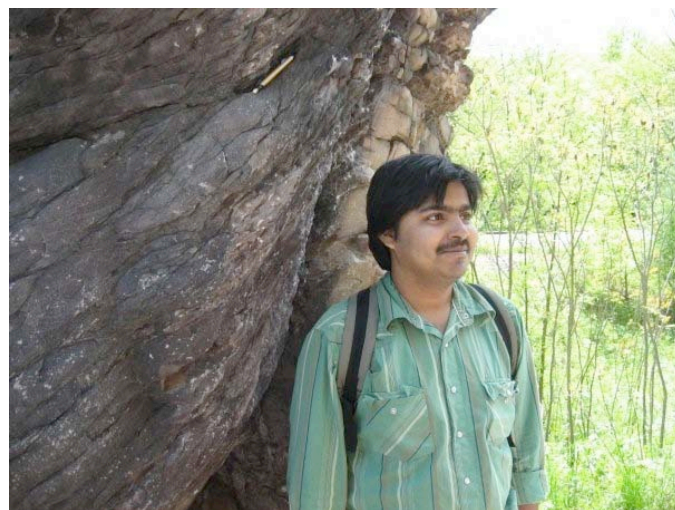
## This week's talk:

Re-dox evolution of the terminal Proterozoic is very critical for better understanding the biological evolution. Several lines of evidence, such as carbon, sulfur and iron speciation suggests that there has been episodes of oxidation events during this time period which might have triggered the dawn of multicellular organisms. However, the direct linkage between biological evolution and the re-dox evolution is still debatable. Last fall, we carried a field trip to South China and collected high resolution samples from the critical time intervals which hold evidence for the oxidation events. We are studying in detail some critical horizons from a platform to basin setting which will guide us to better understand the linkage between paleoceanography's and biological evolution.



## Swapan's Background:

Swapan is the current president of the Southern Nevada chapter of GSN, and is currently pursuing his PhD at UNLV. His dissertation work focuses on paleoclimate and this week he will sharing part of his research to date. Swapan is originally from Kolkata, India and received both his BS and MS from the University of Calcutta in structural geology and tectonics. Swapan then came to the US and earned another MS from Tulane University in Louisiana in tectonics and sedimentation.



---

# Get to know your fellow GSNER's

---

**This year we're starting a new GSN newsletter tradition, thus we present the "Get to know your fellow GSNER's" section. This month's member is Dr. Jean Cline.**

I stumbled into geology when I started college, at the suggestion of a long-time friend. Having grown up at a time when university-bound women were advised to become teachers and nurses, I'd been advised by high school councilors to become a physical education teacher, I guess because I had some athletic ability. A science career was not even remotely on my radar screen, but it sounded fun and interesting when suggested. So I majored in geology and eventually graduated from Wisconsin State University, Platteville, where I did have the good luck to visit a number of the MVT deposits in southwestern Wisconsin before they shut down.

After graduation I was fortunate to be hired by Inspiration Development Company in Arizona and I spent the next 11 years exploring primarily for porphyry copper deposits in the southwestern US. After a number of tough "down" years our office closed and I was laid off. However, the downturn provided the opportunity to return to school at Arizona to work on an MS degree on a Nevada epithermal deposit with Spencer Titley. At that time my goal was to learn about precious metal systems and return to the mineral exploration industry when the industry recovered. The mid '80's was a great time to be back in school, and at Arizona in particular, with more than 50 other experienced and knowledgeable economic geology students, most of them recently out of a job like myself. Unfortunately, jobs were still scarce when I finished my MS, so I moved to VA Tech to continue my education, this time with Bob Bodnar and a focus on fluid inclusion studies.



By the time I finished my PHD I was pretty hooked on economic geology research. Fortunately UNLV had just advertised an EG tenure-track position that looked like it was written for me. UNLV offered me the position and I eagerly headed back out west. Shortly after arriving at UNLV I teamed up with Brian Dozier to form the first GSN chapter in Las Vegas. Our goal was to create an opportunity to meet and connect with other geologists in the valley. We continue to function as a small but enthusiastic group that has a large UNLV student component. I've now been at UNLV about 18 years, which sounds much longer than it feels. I am really fortunate to have ended up in a great department with excellent colleagues and students, all of whom work hard and in a collegial fashion to advance the education and research mission of our department and UNLV. The spectacular geology in Nevada has provided excellent opportunities to work on some fun and interesting projects including particularly Carlin-type gold deposits and also on questions of possible hydrothermal activity at the proposed Yucca Mountain nuclear waste repository. Nevada has also provided excellent opportunities to collaborate with numerous geologists both within and outside the mining industry. I am grateful to the many Nevada geologists who have collaborated, communicated, or just shared a beer with me over the many years.

---

# Announcements

---

## Volunteer to Share your experiences!

Share your field experiences with other GSN SNV chapter members through a story and/or photos in an upcoming newsletter.



Interested? Contact Laura Eaton at [eatonl4@unlv.nevada.edu](mailto:eatonl4@unlv.nevada.edu)

## Calling all speakers and sponsors!

GSN is looking for sponsors and speakers for our 2009-2010 year! If you are interested or have ideas, please contact Swapan Sahoo or Josh Bonde.

Thank you!

## Silent Auction Items

GSN is always looking for specimens and silent auction items for our monthly meetings. The well-being of GSN is made possible by your generous donations. If you have a specimen or silent auction item, please contact Swapan Sahoo or Josh Bonde, or just bring it to the next meeting.

Thank you!

Have an announcement you would like to share in the next newsletter? Contact Laura Eaton at [eatonl4@unlv.nevada.edu](mailto:eatonl4@unlv.nevada.edu)

---

# The 5th Annual UNLV GeoSymposium



---

This past month the Geoscience department at UNLV held its 5<sup>th</sup> annual GeoSymposium and it was a great success! For those of you who weren't able to attend, here are some photos from the event. Hope you can join us next year!





# GSN 2010 SYMPOSIUM

Mark your calendars!

*The Geological Society of Nevada invites you to attend our sixth symposium, **Great Basin Evolution and Metallogeny**. We strive to maintain a tradition of excellence, emphasizing descriptive accounts of ore deposits, new theories on deposit formation and innovative concepts of how to find the next district or deposit.*

## Technical Sessions:

- Carlin-Type Deposits I and II
  - Great Basin Metallogeny
  - Nevada Geology and Tectonics
  - Discovery Case Histories
  - New Mine Developments
  - Volcanic-Hosted Epithermal Deposits
  - Young Au-Ag Hydrothermal Systems
  - Styles of Tertiary Magmatism and Metallogeny
  - Intrusion-Related Deposits
  - Geothermal
  - Rumors from the Bush—
- Great Basin Exploration Update
  - Outta the Box—Concepts in Great Basin Geology and Ore Deposits
  - Exploration Remote Sensing
  - Regional Exploratin Roundup
  - World Exploration
  - Exploration Success—America
- Molybdenum Deposits
  - ArcGIS
  - Remote Sensing
  - Sample Collection, Prep and Analysis
  - Isotopes and Exploration

## Field Trips

- Carlin Gold Deposits-Three Trips
- Epithermal Deposits-Two Trips
- Porphyry and IOGC Deposits
- Modern Ancient Geothermal Systems
- Industrial Mineral Deposits

## Short Courses:

- SEG Workshop—Gold in 2010
- Structural Systematics
- Fundamentals of NI 43-101



Want to learn more or attend?

Contact: (775) 846-9766  
[Secretary@gsnv.org](mailto:Secretary@gsnv.org)  
[www.gsnv.org/symposium](http://www.gsnv.org/symposium)




---

# Paid Advertisements

## Thank you for your support!

---



**Jim O'Donnell**  
Geological/Geophysical Consultant  
**Geotechnical Applications**  
Engineering Surveys

Refraction Microtremor & Refraction (GRM)  
Reflection 2D & 3D Surveys  
Downhole Velocity & Tomography  
Electrical Resistivity 2D Surveys  
702.293.5664  
702.281.9081 Cell  
geophysics@mysite.com

**R.P. BOWEN ENGINEERING INC.**

**R.P. "Paul" Bowen**  
Minerals Exploration Management

6598 West Mesa Vista Ave.  
Las Vegas, NV 89118-1817  
Phone: (702)247-7765  
Fax: (702)876-0237

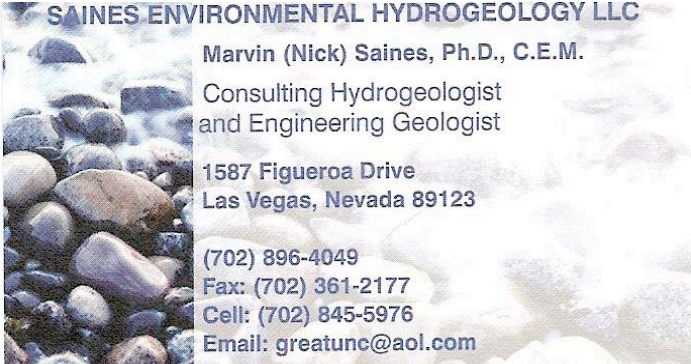
Cell: (702)290-1255  
E-Mail: paulbowen@cox.net

**NEVADA MINERAL & BOOK COMPANY**  
*A UNIQUE EARTH SCIENCE BOOKSTORE*

BOOKS, MINERALS & FOSSILS, JEWELRY  
ANTIQUES, DECORATOR & GIFT ITEMS

Walter Lombardo - Geologist  
Sandy Lombardo - Sci. Educator, Certified Gemologist

645 N. Pueblo Blvd. Henderson, NV 89015  
Approx. 2.5 miles east of Boulder Hwy. on E. Lake Mead Drive  
Phone: (702) 568-9977 E-mail: minbooks@aol.com  
Website: <http://minbooks.net>



**SAINES ENVIRONMENTAL HYDROGEOLOGY LLC**

Marvin (Nick) Saines, Ph.D., C.E.M.  
Consulting Hydrogeologist  
and Engineering Geologist

1587 Figueroa Drive  
Las Vegas, Nevada 89123

(702) 896-4049  
Fax: (702) 361-2177  
Cell: (702) 845-5976  
Email: greatunc@aol.com