



# Arizona Geological Society Newsletter

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JULY 2018

## JULY 3, 2018 DINNER MEETING

**Who:** Alison Jones is the featured speaker. See abstract below.

**Where:** PLEASE NOTE THAT THIS DINNER MEETING WILL NOT BE HELD AT THE SHERATON. Please go to **Borderlands Brewing**, 119 East Toole Avenue, Tucson AZ 85701. There is limited parking at the brewery. There is a parking on the SE side of the building. Please consider using one of downtown Tucson's parking garages at 101 N. Stone, 110 E. Pennington, and 45 N. 5th Ave. Limited metered parking is also available on Toole Ave., Stone Ave., and a metered lot on the NW corner of Stone & Toole.

**When:** Meeting begins at 6 p.m. with drinks and food. Presentation begins shortly afterwards. Event lasts until 9pm.

**Cost:** Free with RSVP on Arizona Geological Society website.

**RESERVATIONS ARE REQUIRED:** Reserve a spot on the AGS website (<http://www.arizonageologicalsoc.org/events>) by 11 am on Friday, June 29th. Please cancel by Friday, June 29th at 11 am if you are unable to attend.

The July dinner meeting is sponsored by:



If you are interested in sponsoring the dinner meeting, please email:  
[vpmarketing@arizonageologicalsoc.org](mailto:vpmarketing@arizonageologicalsoc.org)

### ABSTRACT

## Rafting through 2 Billion Years of Geologic Time

By Alison Jones, Clear Creek Associates

Alison Jones will take us on a virtual rafting trip through the Grand Canyon to look at the Paleozoic and Precambrian rock units, modern geologic features (lava dams, debris flows), and anthropologic and historical features.

Continued on Page 2



## ABOUT THE SPEAKER

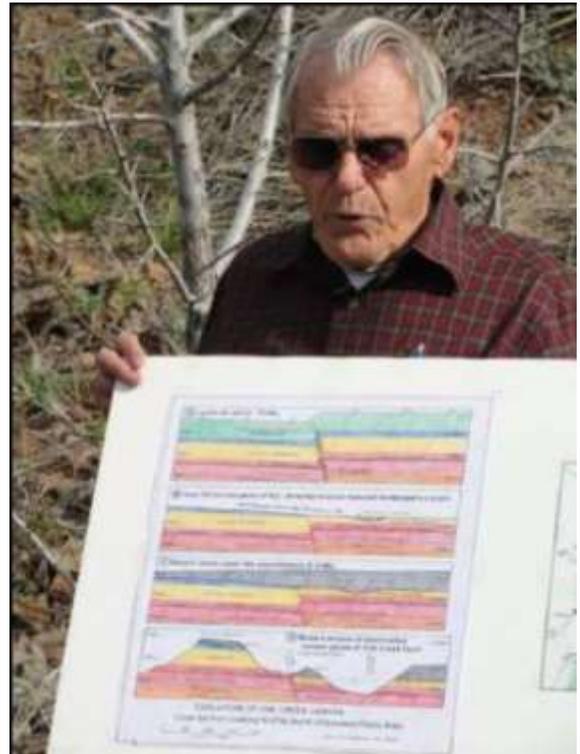


Alison Jones is a third generation geologist. She got her Bachelor's degree in Geology from Louisiana State University in Baton Rouge (where there is not a single rock at the surface within 100 miles) and a Master's degree from the Colorado School of Mines (where there were plenty of rocks). Alison's career path took the scenic route. She did research for geological books and BBC television films right out of graduate school, and eventually ended up in Maine working as a hydrogeologist. On a vacation in 1997, Alison saw her first saguaro outside of the baggage claim area of the Tucson airport, and she knew she would eventually live there. Finally, in 2006, eager for a change of

scenery, she and her husband moved to Tucson, where she was thrilled to have "Grand Canyon State" on her license plate. After a couple of years at City of Tucson Environmental Services as an Environmental Manager, she went back to consulting. She has been working at Clear Creek Associates on groundwater projects since 2008. Alison has served as President, Secretary, and Treasurer of the Arizona Geological Society.

Alison's first river trip through the Grand Canyon was in 2006, with a former Mines professor who had served on her thesis committee, Dr. John Warne. Those early trips focused on depositional environments and sedimentological processes. Later trips with Stan Beus (NAU Emeritus professor and co-discoverer of the Surprise Canyon Formation) took an even broader view of the Canyon's history. She is grateful to these two wonderful geologists for opening up this part of the world to her. She will run her 12th trip in August.

## Paul A. Lindberg (1931-2018)



It is with great sorrow that we announce the passing of Paul A. Lindberg on June 16th, 2018. He was a professional economic and field geologist, life-long thinker, mineral explorationist, author, nature sleuth, teacher, and mentor. He earned his Bachelor's Degree in Geological Engineering from the University of Minnesota-Twin Cities. He worked as an exploration copper geologist for Anaconda Company from July 1956 through February 1976 in the U.S., Canada, Peru, and Chile. He worked for two years (1976-1978) as a Mineral Exploration Manager for McIntyre Mines Ltd, based in Toronto, Ontario and the next 40 years as a consulting geologist for a number of metallic mineral mining companies including Baffinland Iron Mines Corp in Nunavut Territory, Canada. Arizona Registered Geologist #22226 with the Arizona Board of Technical Registration and Certified Professional Geologist #CPG-06344 with AIPG. He was active with the Arizona Section of the American Institute of Professional Geologists (AIPG) and was awarded the Section Leadership Award in 2015 at the national AIPG meeting in Anchorage. He was awarded Life Member status in 2018 by the Arizona Geological Society--appropriately during an AGS field trip to Jerome. He wrote numerous professional papers and led field trips for AIPG and AGS. He was a highly respected expert on the massive sulfide ore deposits of Jerome and wrote on many other topics of interest in central and northern Arizona.

Paul was a kind, thoughtful gentleman who shared his knowledge with thousands of fellow geologists and will be missed by his many colleagues, friends, and family.

You may read some of Paul Lindberg's work here:

[http://archives.arizonageologicalsoc.org/guidebooks/AGS\\_2005-11\\_Jerome\\_S.pdf](http://archives.arizonageologicalsoc.org/guidebooks/AGS_2005-11_Jerome_S.pdf)

An article on Paul Lindberg can also be found on the Arizona Geology e-Magazine here:

<http://blog.azgs.arizona.edu/blog/2018-06/economic-geologist-paul-lindberg-passes-away-6162018>

# Arizona Geological Society Executive Committee: Slate of Officers for 2019

**Good Day All:**

The Arizona Geological Society (AGS) is searching for volunteers to serve on the 2019 AGS Executive Committee. All officers, with the exception of councilors, serve for one (1) calendar year. Councilors serve for three (3) years. Don't be shy, self-nominations are common and acceptable. The following offices require candidates:

**President**

**Vice President of Programs**

**Vice President of Field Trips**

**Vice President of Marketing**

**Treasurer**

**Vice Treasurer**

**Secretary**

**Vice Secretary**

**Two (2) Councilors**

In addition to the executive committee, the Arizona Geological Society is seeking someone to take charge of the AGS website.

During the coming year, the AGS will be involved in two new exciting projects, the University of Arizona's Gem and Mineral Museum in downtown Tucson and the Geological Society of America's Annual Meeting in Phoenix, Arizona. The Society's success in carrying out its mission depends on its members' willingness to contribute to these and other endeavors. In addition to the satisfaction of knowing your efforts make a difference in our local world, you will gain a wider group of friends and colleagues and the appreciation of all AGS members. Take a moment to consider what you can do to help the Society accomplish its mission. You can self-nominate and you can nominate others, but you should contact that person prior to nominating them to gauge their interest in serving.

**AGS Background:** Founded in 1948, the Arizona Geological Society has been a leader in Arizona geology for seventy years. During this period it has published 22 Digests and more than 90 field trip guides. This success is solely attributed to the work of its members, who have volunteered their time to conduct its business. Over the years, older members have been succeeded by younger professionals, whose active participation in Society activities has benefited both the AGS and their professional careers. The final proposed slate of officers for 2019 will be announced in the September 2018 newsletter.

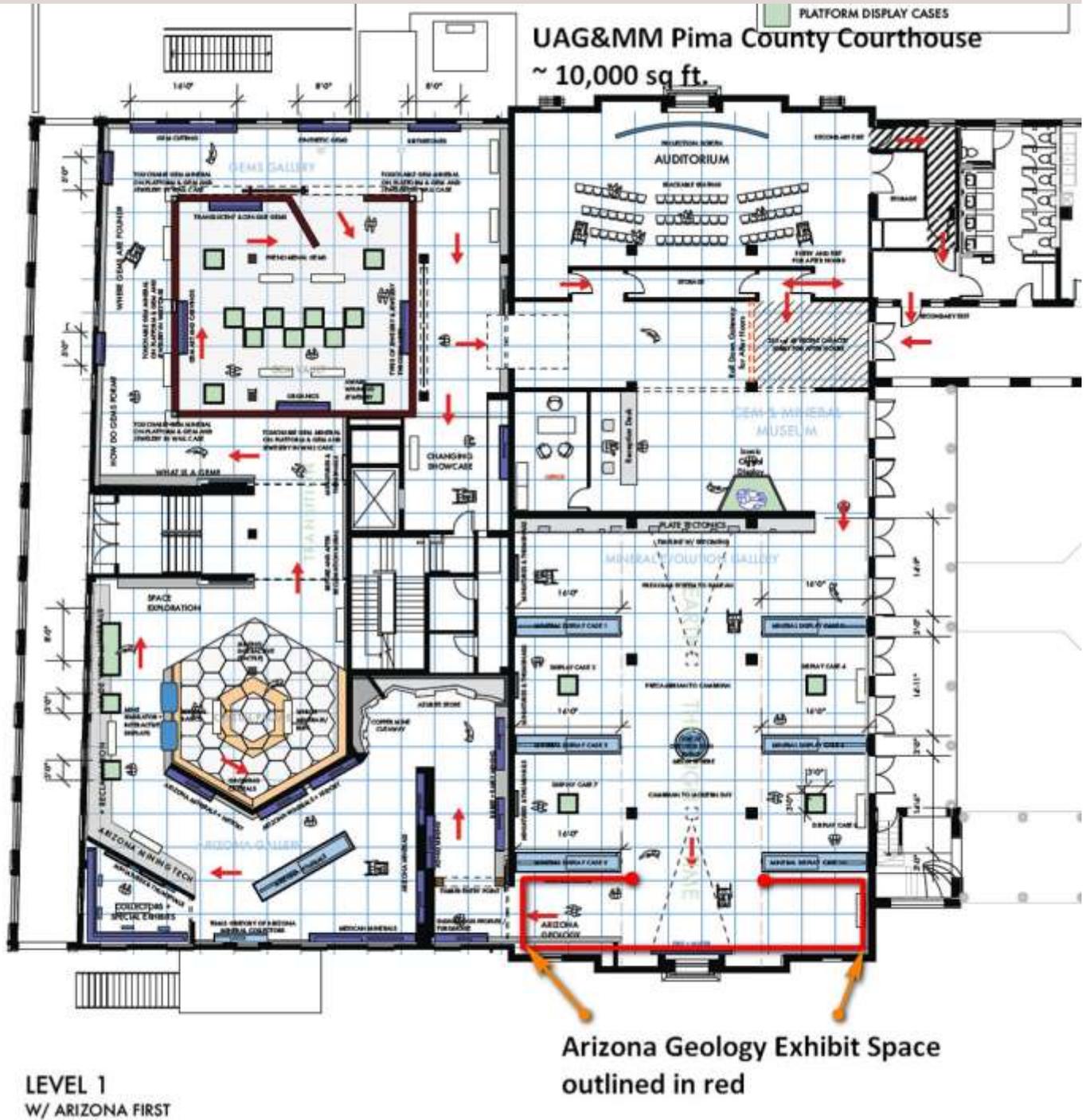
Should you have questions, please contact any officer. You can reach me at [davidfbriggs@aol.com](mailto:davidfbriggs@aol.com) or (520) 784-3954.

Thank you,

David F. Briggs

Past President, Arizona Geological Society

# Call for AGS Members to Assist with Design for Upcoming University of Arizona Gem & Mineral Museum Exhibit



Bob Downs, Univ. of Arizona Mineral Museum Curator & Prof. of Geosciences, is leading the effort to build out a University of Arizona Gem & Mineral Museum (UAGMM) at the former Pima County Courthouse in downtown Tucson. Building renovation is well underway with the museum scheduled for a soft opening at the Courthouse in Jan. 2020.

Two of the museum's chief organizers, Eric Fritz (Mgr.) and Les Presmyk (Mining Engineer & mineralogist), approached AGS's Jan Rasmussen (former Curator of the Arizona Mining and Mineral Museum in Phoenix) and AZGS's Mike Conway about helping design an exhibit focusing on the geology of Arizona.

Jan and Mike have begun pulling together ideas for an Arizona geology narrative – one idea involves building a digital display showcasing Ron Blakey's marvelous paleogeographic reconstructions of the Colorado Plateau and environs, complemented by geologic scenes, lithologies, and interviews as the cornerstone of the exhibit.

**HELP!** But we want your help in gathering ideas on the elements of narrative (with visuals) expounding on Arizona's geologic history. In short, we want your ideas, sketches, brainstorm, and musings to help us rough out a draft design by mid-July 2018 – 3 weeks away! This is an important opportunity for you to influence a future wide audience about Arizona geology.

## LOGISTICS

Arizona Geology Exhibit. Approximately 75 square feet is set aside for an Arizona Geology exhibit. An additional 15 square feet is provided for a porphyry copper display. (Will Wilkinson, FMI retired, is taking the lead here.)

**Audience.** UAG&MM organizers anticipate a largely non-science audience of considerable age range and with limited knowledge of geologic concepts.

**Timeframe.** Time is short. AGS & AZGS representatives meet with the UAG&MM design team in mid-July, so the sooner you share your ideas the sooner we can begin evaluating them.

**Financial Resources.** Bob Downs, Eric Fritz and others in the management will pursue the financial resources for final exhibit design and construction.

How to help! Please send your ideas, sketches, and experiences gleaned from other mineral or natural history museums to Mike and Jan at the e-mail addresses below. We can meet to brainstorm ideas before the July 3rd AGS meeting to discuss ideas.

Mike Conway	Jan Rasmussen
<a href="mailto:fmconway@email.arizona.edu">fmconway@email.arizona.edu</a>	<a href="mailto:geoarizona@gmail.com">geoarizona@gmail.com</a>
AGS Treasurer and AZGS	AGS Member and Consultant

Thank you for supporting AGS in this important endeavor.

Marisa Lerew

AGS President - 2018

## AZGS Releases Natural Hazards in Arizona Viewer with Statewide Landslide Theme



The Arizona Geological Survey released an improved interactive Natural Hazards in Arizona Viewer 2.0 that includes a statewide landslide theme. The original Natural Hazard Viewer focused on Pleistocene-Holocene faults and earthquakes, earth fissures, floods, and wildfires. Version 2.0 includes landslides - displaying the distribution and areal extent of more than 8,000 landslide features covering more than 800 square miles.

Each year natural hazards - floods, landslides, and wildfires - threaten Arizona communities and cause millions of dollars in damage to infrastructure and private property. The revised Natural Hazards in Arizona viewer, developed by the Arizona Geological Survey in cooperation with the Arizona Division of Emergency Management, makes identifying and mitigating natural hazards in Arizona easier.

The Natural Hazard in Arizona Viewer serves county planners, county and municipal emergency management offices, water district managers, federal, state, tribal, county and municipal governments, and the public. The “Find Local Hazards” tool allows individuals to identify local hazards from less than one mile to up to a 15-mile radius from a specific address.

The Viewer is complemented by ‘best practices’ mitigation strategies (About) for avoiding loss of life, minimizing personal injuries, and property damage.

The Federal Emergency Management Agency (FEMA) provided funding for initial design, construction, and deployment of the site.

See the Natural Hazards in Arizona Viewer here:  
<http://uagis.maps.arcgis.com/apps/webappviewer/index.html?>

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## New AZGS Publication: Cretaceous Tectonic Setting of Colorado Plateau

New AZGS Contributed Report (CR-18-G) ~ Notes on the Cretaceous and Laramide of the Colorado Plateau by William R. Dickinson.

William R. Dickinson was in the process of preparing a comprehensive publication on the Mesozoic stratigraphy and tectonic setting of the Colorado Plateau when he died abruptly while on a geoarchaeological expedition to Tonga (Spencer, 2016). The book was largely written and the completed chapters were published posthumously by the Geological Society of America (Dickinson, 2018).

Dickinson had drafted figures and written figure captions and some text for three additional chapters that were not included in GSA Special Paper 533. The topics of those three chapters are as follows:

- Lower Cretaceous Cedar Mountain – Burro Canyon deposystem
- Upper Cretaceous Mancos – Mesaverde deposystem
- Laramide Orogeny

Direct link to AZGS repository digital copy of Dickinson 2018: [http://repository.azgs.az.gov/uri\\_gin/azgs/dlio/1892](http://repository.azgs.az.gov/uri_gin/azgs/dlio/1892)

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**Arizona Geological Society is grateful to Freeport-McMoRan, Inc. for their generous support of our student members!**

**Freeport-McMoRan sponsored student dinners for the 2018 AGS monthly meetings.**



**AGS MEMBERSHIP APPLICATION OR RENEWAL FORM**

YOU CAN RENEW OR SIGN UP as a new member and pay online. Please go to our website, arizonageologicalsociety.org. Or use the form below if you are more comfortable with the old school approach.

Please mail check with membership form to: Arizona Geological Society, PO Box 40952, Tucson, AZ 85717

Dues (check box)  1 year: \$35;  full-time student (membership is free)

NEW MEMBER or RENEWAL? (circle one) Date of submittal \_\_\_\_\_

Name: \_\_\_\_\_ Position: \_\_\_\_\_

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*All newsletters will be sent by email. If you do not have an email address, we will mail a hard copy to you, but we cannot guarantee timeliness.*

If registered geologist/engineer, indicate registration number and State: \_\_\_\_\_

Enclosed is a \_\_\_\_\_ tax-deductible contribution to the  J. Harold Courtright or the  M. Lee Allison