



Arizona Geological Society Newsletter

AUGUST 2020

Society Announcements

AGS and GSN Members and Friends,

For this month, the Geological Society of Nevada and AGS will proudly co-host a virtual talk for GSN's 8th symposium. Abstract and speaker information can be found at <https://www.arizonageologicalsoc.org/event-3942382>,

Please note that the meeting is scheduled for Thursday, August 27th, at 7:00 pm

Program: Renaissance Gold Inc. on Silicon

Speaker: Mark F. Coolbaugh

Zoom Information:

Meeting ID: 871 7379 3912

Passcode: Silicon

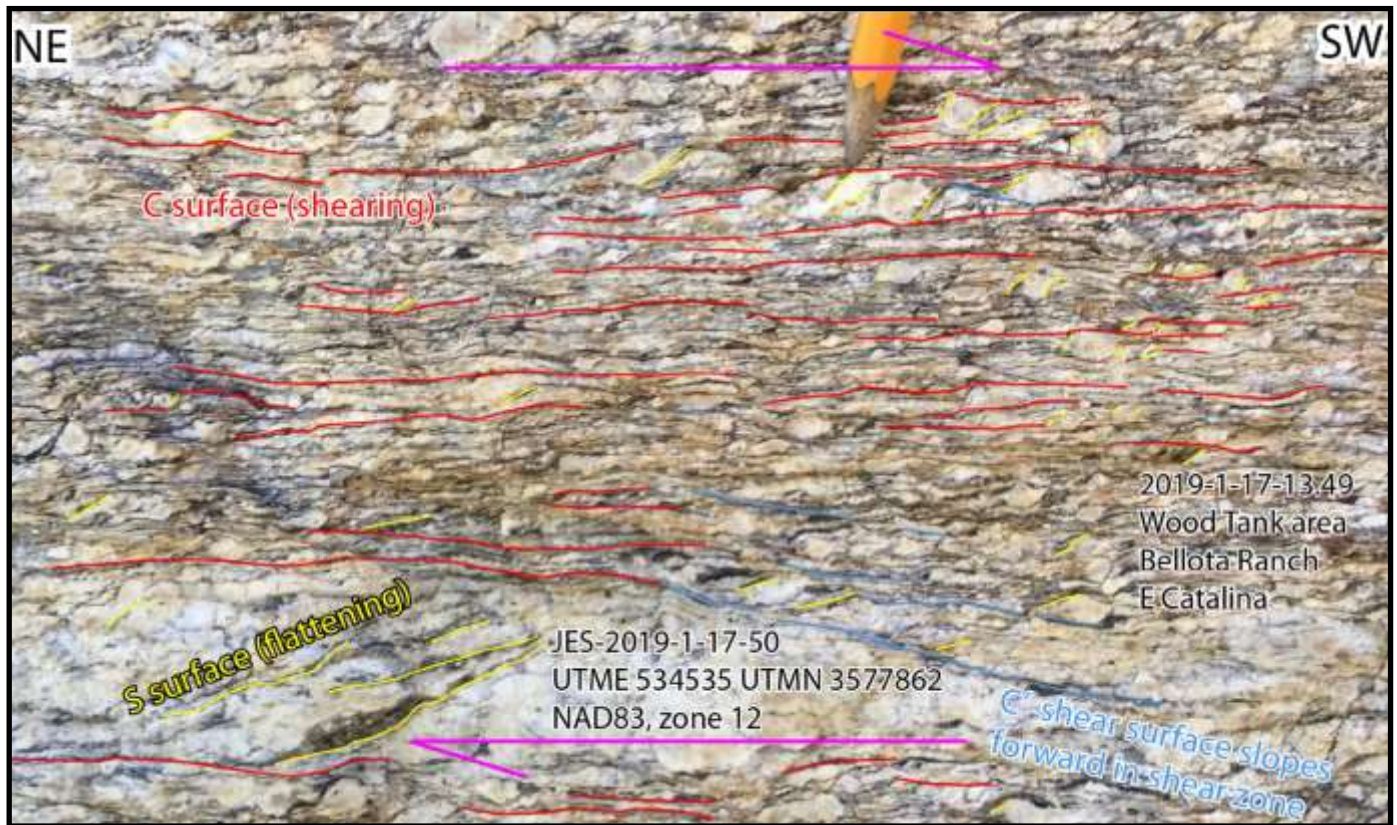
What you need to know to ZOOM

- You need a PC or Mac with computer audio and an internet connection to view and hear the presentation.
 - Simply follow this URL: <https://us02web.zoom.us/j/87173793912?pwd=ZlpRL2NXlWFyazlONXlzaFB6aVZ6dz09>
 - And follow the instructions to 'Launch the Application'
 - Enter passcode: Silicon
- If you have a web camera, you can toggle it on for others to see you. Or not.
- You will be muted upon entry. Please remain muted during the formal presentation.
- Select 'More' followed by 'Chat' to queue up a question during the talk.

If you are interested in sponsoring future AGS dinner meetings, please contact:

info@arizonageologicalsoc.org

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Arizona Geology Blog:

Mylonitic fabrics in the eastern Santa Catalina Mtns, Arizona

3 August 2020

Jon Spencer (formally Sr. Geologist at AZGS) and Kurt Constenius have a new technical report, Reconnaissance study of mylonitic fabrics in the Bellota Ranch area, eastern Santa Catalina Mountains, Arizona, just released and downloadable at the [AZGS Document Repository](#).

From the report abstract, "The Santa Catalina Mountains in southeastern Arizona include extensive mylonitic fabrics developed within granitic and gneissic rocks that make up most of the range. These fabrics are strongest at the southern foot of the range where they dip south and project beneath the rangebounding Catalina – San Pedro detachment fault. Shear sense in the mylonitic rocks is primarily top-southwest, consistent with shearing down-dip from the detachment fault during early normal faulting and exhumation to form the metamorphic core complex. Two to three kilometers north of the foot of the Santa Catalina Mountains the mylonitic foliation is horizontal and farther north it dips to the north.

The 12-page Contributed Report is accompanied by an annotated 9-slide powerpoint presentation illustrating mylonitic textures at the hand specimen scale.

CITATION. Spencer, J.E. and Constenius, K.N., 2020, [Reconnaissance study of mylonitic fabrics in the Bellota Ranch area, eastern Santa Catalina Mountains, Arizona](#). Arizona Geological Survey Contributed Report CR-20-C, 12 p, one appendix.

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**Arizona Geology Blog:
Review 'Helvetia-Rosemont: Arizona's Hardscrabble Mining Camp'**

25 July 2020

Invited Arizona Geology blog post by geologist Jonathan DuHamel.

David Briggs tells a compelling story of the Helvetia-Rosemont Mining District in the Santa Rita Mountains of southern Arizona from the 1690s to the present day. The paper describes the history of the Helvetia subdistrict on the west side of the mountains and the Rosemont subdistrict on the east side of the mountains. It is a well-told story of the people, conditions, conflicts, businesses, and development of transportation and mining technology in the area.

LINK: [Helvetia-Rosemont: Arizona's Hardscrabble Mining Camp](#)

The story includes the ups and downs of mining ventures, fortunes made and lost, and politics of the region. Briggs gives us a glimpse of what life was like in the mining towns, describes some of the colorful characters, and what conditions miners endured within the mines.

The paper includes a brief explanation of porphyry copper deposits in general and the specific geology of the mines. He describes the smelter which processed ore from the district and ore imported from other areas. There is a section on the historic production of the area. There were three main periods of copper production, one from 1900 until 1910, a second during World War I and a third that began during the early 1940s and continued until 1960.

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Briggs provides a history of regulation in the area beginning with establishment of the Santa Rita Forest Reserve in April 1902. Augusta Resources acquired the properties in 2005 and after extensive exploration sold them to Hudbay Minerals in 2014. Briggs describes their modern exploration and the still on-going regulatory controversies.

Historic and contemporary photos and maps enhance the narrative. The story is well-documented by an extensive list of references.

As a whole, the story of the Helvetia-Rosemont area is very interesting and presents a picture of the colorful history of mining in Arizona.

Briggs ends his story with this: “A victim of competing visions of Arizona’s future, efforts to resume production in the Helvetia-Rosemont remain on hold as appeals work their way through the courts. Only time will tell, whether the Helvetia-Rosemont Mining District remains Arizona’s hardscrabble mining camp or assumes its hard-earned place as one of America’s largest copper producers.”

Reviewer Jonathan DuHamel is a retired exploration geologist.

Citation: Briggs, D.F., 2020, Helvetia-Rosemont: Arizona’s Hardscrabble Mining Camp. Arizona Geological Survey Contributed Report CR-20-A, 65 p. http://repository.azgs.az.gov/uri_gin/azgs/dlio/1950



ARIZONA GEOLOGY
e-MAGAZINE

Opportunities

AZGS hiring for full-time Researcher/Scientist position

The Arizona Geological Survey has two full-time *Researcher/Scientist III* positions to assist with geologic mapping and other duties. [Full Description and Apply Now link](#).

Colorado Geological Survey - Engineering Geology Job

Job Description - <https://jobs.mines.edu/cw/en-us/job/494497/engineering-geologist-land-use-review>

If you have a relevant opportunity that may interest AGS members, please contact:

info@arizonageologicalsoc.org



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YOU CAN RENEW OR SIGN UP as a new member and pay online. Please go to our website, arizonageologicalsoc.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 _____

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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 Scholarship Funds.