

# Inland Geological Society

February 2025

## Next Meeting:

**Tuesday, February  
11th**

## Time:

Social: 6:00pm

Dinner 6:30pm

Presentation:  
7:00pm

## Location:

3 Iron

Brewing Company  
898 South Via Lata,  
Suite A  
Colton, CA 92324

## Coming to Dinner?

Students \$10

IGS Members \$12

Non-Members \$15

Please RSVP by  
**February 7th** to:

[rsvp.igs@gmail.com](mailto:rsvp.igs@gmail.com)

## Newsletter of the Inland Geological Society Volume 37 No. 1

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*February Speaker: Dr. Susana Henriquez*

## **"Crustal thickening and exhumation in the Mongol-Okhotsk Belt: Implications for collisional processes in accretionary margins "**

### **Abstract:**

The closure of the Mongol Okhotsk Ocean (MOO) marks the final amalgamation of the Central Asian Orogenic Belt, the largest accretionary belt on Earth. This ocean closure formed the Mongol Okhotsk Belt, an orogen over 3,000 km long that extends from central Mongolia to the Sea of Okhotsk. The closure of the MOO in the western end is related to the growth of the Mongolian Orocline, a secondary orocline that buckled the lithosphere by bending an accretionary margin. Unraveling the upper plate response to the growth of the orocline and the eastward closure of the ocean is key to understanding the evolution of the collisional processes in accretionary belts. This study uses the sedimentary and geochemical record to constrain the growth of the Mongolian Orocline. Preliminary results for the chemical Moho suggest that the orocline experienced crustal thickening from the Triassic to the Jurassic. At the same time, sedimentary data record the exhumation of the Mongolian Orocline during the early Late Triassic. Thus, this analysis suggests that the western Mongol-Okhotsk Belt started to experience crustal thickening, exhumation, and presumably shortening during the Late Triassic as the Mongolian Orocline grew within the Central Asian Orogenic Belt. This thickening and presumably exhumation continued during the Jurassic as the ocean closure propagated to the east.

**Speaker Biography:**

Susana Henriquez is an assistant professor at California State University San Bernardino. She is a structural geologist and tectonicist. She completed her PhD at the University of Arizona and was a postdoctoral researcher at the University of Utah before joining CSUSB. Her expertise also includes thermochronology, basin analysis, and igneous geochemistry. She studies mountain building processes in convergent plate margins like the Andean Cordillera and the Mongol-Okhotsk Belt in Central Asia. In this talk, she will be sharing some of the results from her research in Mongolia.

**ANNOUNCEMENTS:**

The Inland Geological Society will meet the second Tuesday of each month at:

**3 Iron Brewing Company**

898 South Via Lata , Suite A

Colton, California 92324

(<https://www.3ironbrewingco.com>)

**Our next meeting is scheduled for Tuesday, March 11, 2025.**

**Visit our:**

- Webpage at <https://www.inlandgeo.org>.
- Facebook Page at <https://www.facebook.com/groups/InlandGeo/>.

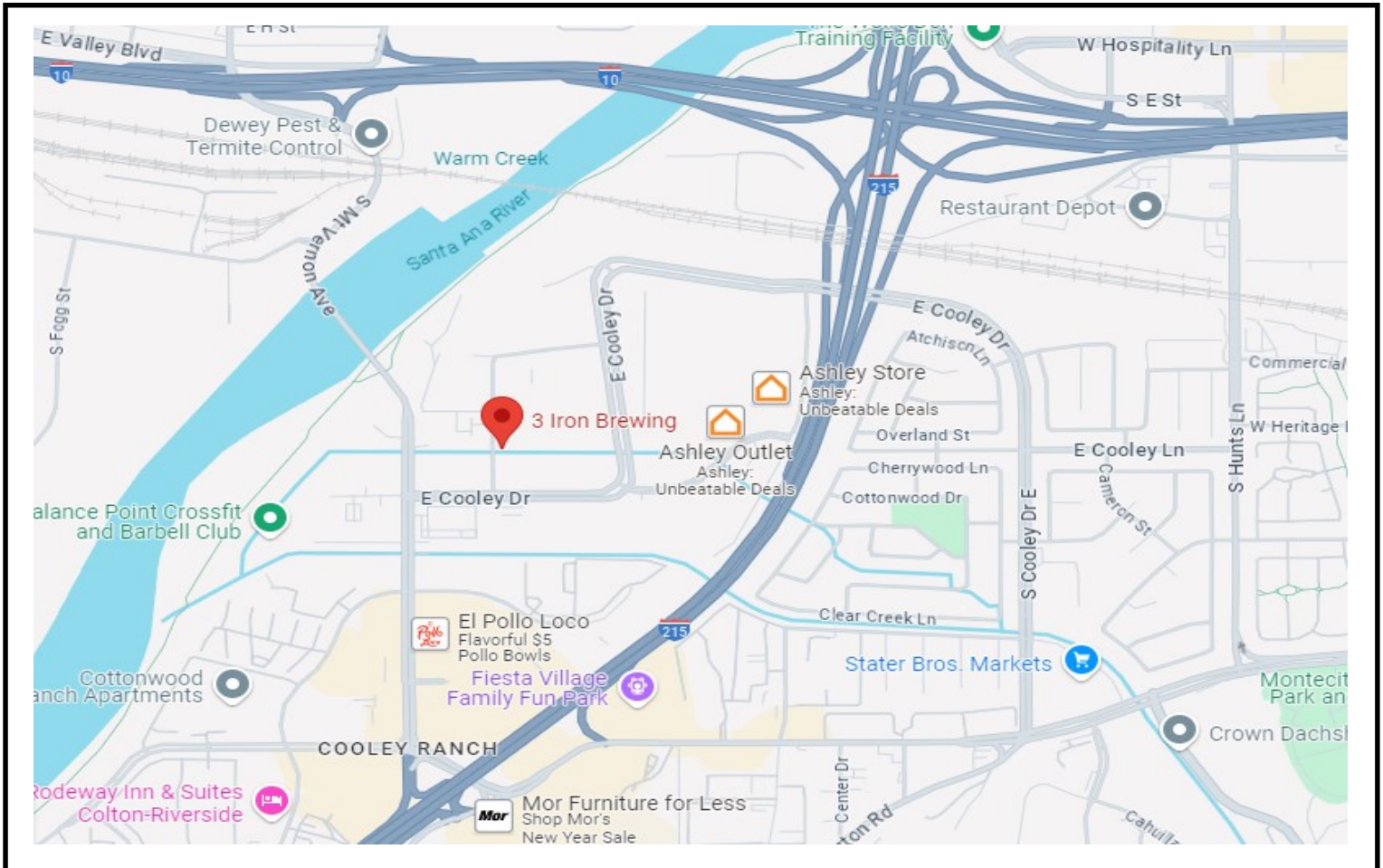
If you are interested in serving as the Inland Geological Society Membership Chair, please email Margaret Gooding at [mgooding@roadrunner.com](mailto:mgooding@roadrunner.com).

IGS coffee mugs are available at the monthly meetings for \$10. Get yours at the upcoming meeting!





898 South Via Lata , Suite A  
Colton, California 92324  
(<https://www.3ironbrewingco.com>)



## **IGS OFFICERS**

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