



MINERALS FOR OUR FUTURE

August 27-30, 2022 | Denver

www.seg2022.org



Sediment-hosted gold mineralization at the Gegalaw deposit in central Myanmar

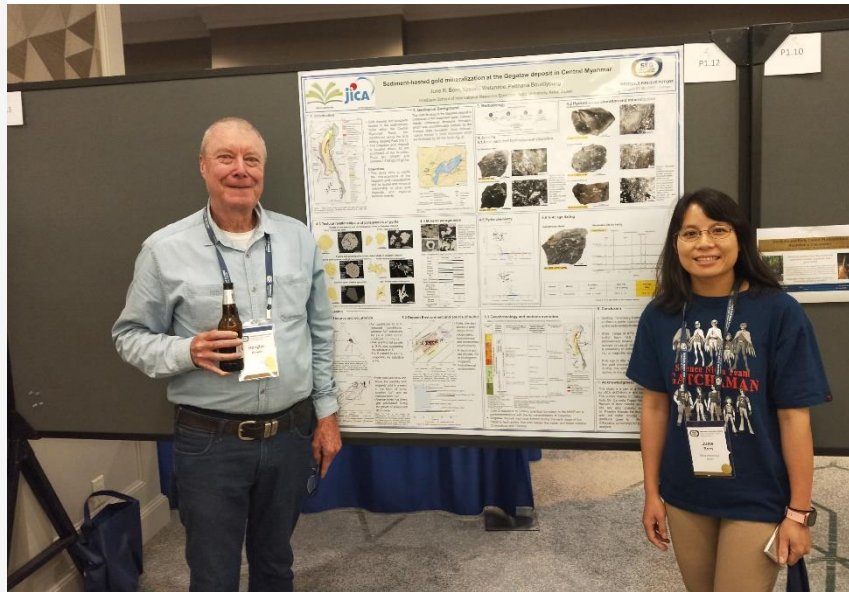
June Born Born*, Yasushi Watanabe,
Patthana Bounliyong

Report for SEG conference

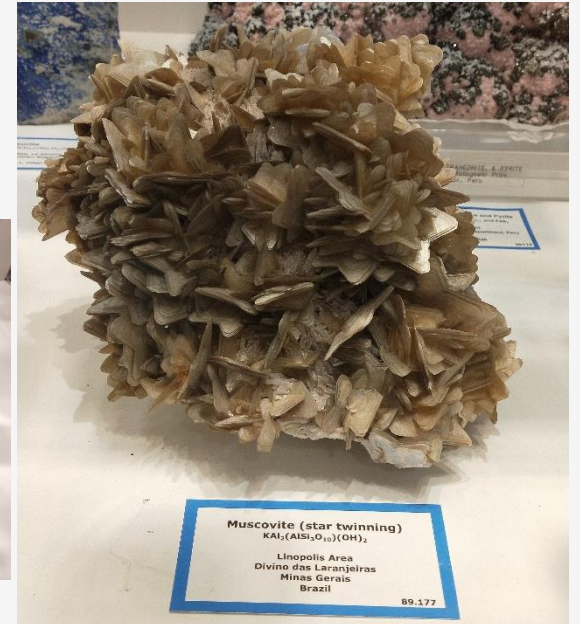
August 27th – Welcome Registration and visit to Mine Museum



Dr. Douglas Kirwin



TICKETS AVAILABLE
for the
SEG RECEPTION at the
**COLORADO SCHOOL OF MINES
GEOLOGY MUSEUM**
TONIGHT, AUGUST 27, 2022
6:00 - 8:00 p.m. \$ 50/ per person
Serving beverages and light fare
Location: CSM Geology Museum
1310 Maple Street
Golden, Colorado 80401



Mine Museum

COLORADO SCHOOL OF MINES GEOLOGY TRAIL

Stop 1: Geologic Setting of Museum and Trail

By Robert Weimer, Stephen Sonnenberg and Linda Martin

RECORD OF THE FRONT RANGE UPLIFT

The story of the Front Range Uplift comes from rocks exposed on the CSM Campus, the Table Mountains and Green Mountain, three miles to the south. This walking tour visits outcrops of the Pierre, Fox Hills, Laramie, and Arapahoe formations (Figs. 1, 2 and 3). The younger volcanic-rich Denver Formation, once visible in Campus excavations, is now exposed only on the slopes of the Table Mountains.

Environments of deposition and ancient landscapes are described with emphasis on the mined clay, coal, water aquifers, log imprints and dinosaur tracks.

The mountain terrain to the west is held up by resistant Precambrian crystalline rocks that were uplifted along the Golden Fault (64 to 55 million years ago – mya). The uplift rotated the once horizontal formations in the Campus area to a near vertical tilt (dip). Volcanic lava flows cap the Table Mountains to the east and overlie low-dipping strata of the Denver Basin.

The Golden-Green Mountain area may be regarded as the type locality for the record of events that built the Rocky Mountains, referred to as the Laramide Orogeny, a name derived from the Laramie Formation.

STRUCTURAL CROSS SECTION

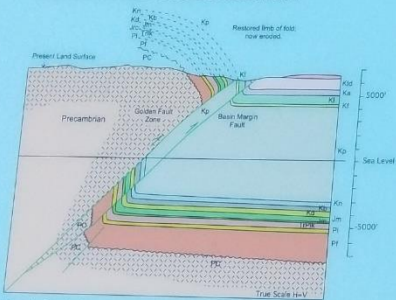


Fig. 1. Geologic cross section north of Golden with use of seismic section in Golden Gate Canyon.

VIEW FROM MUSEUM WINDOW – WATCH INDOOR VIDEO BEFORE WALKING THE GEOLOGIC TRAIL

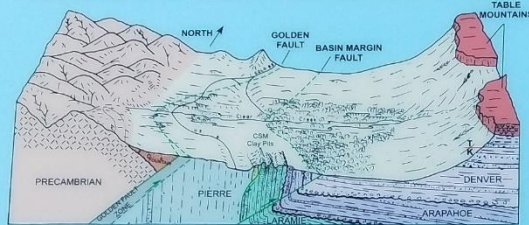


Fig. 2. Sketch of geology of Golden area with Golden, Basin Margin and Clay Pits faults (after F. E. Moore).

STRATIGRAPHIC COLUMN

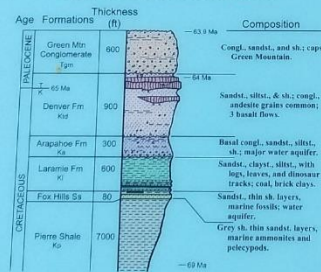
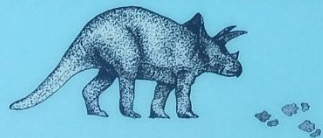


Fig. 3. Generalized stratigraphic column with formations of Golden-Green Mountain area.

DINOSAUR TRACKS, LOGS, AND LEAVES ARE AT STOP 2!



THE GEOLOGY MUSEUM

The Geology Museum started as a “mineral cabinet” put together by Arthur Lakes, Geology Professor and first curator of collections in 1874. Today, the Museum occupies a new building that houses about 50,000 minerals, fossils, and artifacts.

The spectacular mountain front geology viewed from the Museum, the exhibits, and educational opportunities are enjoyed by thousands of school children and casual visitors each year. This guide to the geology of the CSM campus describes the history of the Front Range Uplift for all visitors.

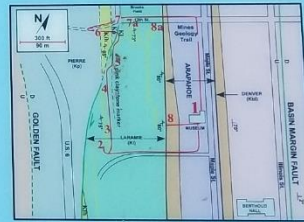


Fig. 4. Bedrock geologic map with the Mines Geology Trail. Sandstone beds within the Laramie Formation are yellow lines; intervening areas are claystone.

Start the Trail at the Museum (Stop 1), and walk 200 feet south along Maple St. Turn west and go 600 feet on West Campus Drive to Stop 2. Follow the signs from Stop 2 to 6 to see dinosaur tracks, logs and leaf imprints, economic products, the Rock Garden, and the geology of the Golden area.

REFERENCES:

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August 28 ~ 30th (Activities)

Prof. Larry Meinert



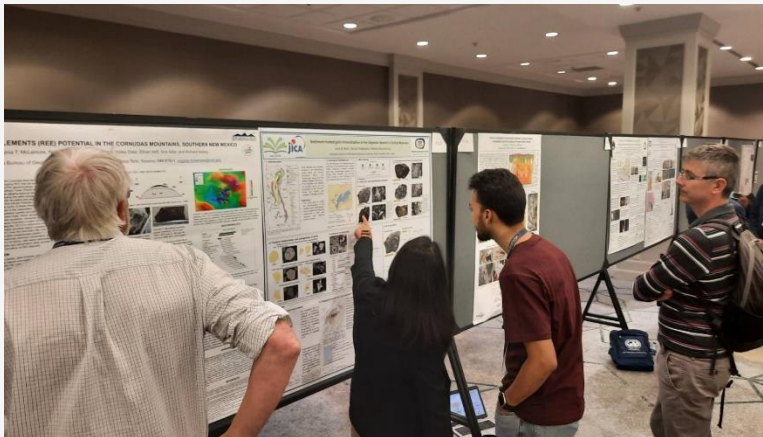
Prof. Murray Hitzman



Prof. Ross Large



Dr. Richard Goldfarb



**IMDEX
XRF
(can get results
until ppm)**



**Whole rock geochemistry
and Dating**





SEG 2023 Conference: Resourcing the Green Transition
August 26-29, 2023
London, United Kingdom



** To get SEG funding, students must be SEG members

