



COLORADO SCHOOL OF MINES



MINES MUSEUM

of earth science

ANNUAL REPORT

2023

Our Mission

Mines Museum of Earth Science is committed to fostering an appreciation of the Earth, energy and the environment through exploration, engagement, and enlightenment.

Our Vision

To be the leader in Earth Science exhibition and outreach, connecting the public to Mines and encouraging the pursuit of careers in STEM.

Our Values

The following core beliefs guide our conduct: **collaboration**, **scientific curiosity**, **connection**, **stewardship**, and **excellence**.

Executive Summary

The end of 2023 marks five years of museum progress under a new leadership and operating structure. While the journey has been rife with challenges, obstacles, and surprises, it has also been marked with enormous accomplishments and proven successes.

The museum's donor base has been re-engaged and is growing. The museum building has undergone numerous improvements, including repairs and renovations. The collection, and its impact on visitors, has greatly expanded. The museum continues to move toward financial self-sufficiency by developing multiple streams of revenue to support faculty salaries and museum operations. Positive reviews and glowing feedback demonstrate our commitment to visitor experience.

As 2024 and the Colorado School of Mines 150th birthday celebration approaches, I am proud of the museum's progress in 2023, but most especially, over the past five years. Although there are still critical projects remaining and unforeseen challenges ahead, I am encouraged by the museum's momentum and by the dedication of our volunteers, friends, donors, and supporters.

It is with humble gratitude that I present the first edition of the Mines Museum of Earth Science Annual Report; the culmination of countless hours contributed by a truly incredible community.



Renata Lafler

Executive Director
Mines Museum of Earth Science

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HISTORY

The legacy of Mines Museum and its collections span nearly 150 years. The original collection was built by fossil hunter and Mines Professor, Arthur Lakes, in the mid-1870's. Lakes' collection of specimens was displayed in Jarvis Hall in 1877. The building and collection were destroyed in a fire the following year. Lakes rebuilt the collection, made up primarily of fossils for teaching, and was named Professor of Geology and the first curator in 1880. This new collection was exhibited in the "Old Chemistry" building on campus (image above).

The second professor to serve as Curator was Horace Patton in 1893. He subdivided the collection by category and the exhibits were relocated to Guggenheim in 1906. Following Patton's retirement in 1922, the collection was

moved to storage for nearly twenty years.

The collection emerged again in 1940, this time in Berthoud Hall, for a short-lived appearance. It was soon packed away again to make room for the U.S. Army's wartime training facilities. Following the war, Curator, J. Harlan Johnson, unpacked the specimens and began systematically expanding the collection until his retirement in 1957.

The collection continued to grow under the stewardship of a long line of curators, and by 1985, totaled more than 40,000 objects including rocks, minerals, fossils, gems and artifacts.

One of the most important collections to arrive at the Geology Museum was the

Colorado State Mineral Collection, an assemblage of over 10,000 specimens that was transferred to Mines beginning in 1966 via legislative acts and legal agreements.

Other important additions to the museum's collection include the Allison-Boettcher gold collection, seven murals painted by Irwin Hoffman depicting the history of mining, the Wolcott Silver Pitcher & Tray, and the Miss Colorado Crown.

In 2003, the General Research Building (GRL) was constructed on-campus with a 15,000 sq. foot dedicated museum exhibition space and collections storage area. The museum presently remains headquartered at this location.

In 2019, under new leadership, the museum was renamed, "Mines Museum of Earth Science," and a formal re-branding process began, led by the university's marketing team. A museum strategic plan was launched including such goals as facilitating closer alignment with University initiatives, ensuring

long-term sustainability, expanding collections, broadening our audience, and establishing the museum as a leader in Earth Science outreach.

In 2020, a new museum store was built with proceeds supporting museum faculty salaries and other operating expenses. In 2021, the museum installed its first professionally designed and fabricated museum exhibit centered on hydraulic fracturing in Colorado, developed in conjunction with the Petroleum Engineering Department.

The museum currently houses a collection of over 45,000 objects, with 3,000 currently on exhibit, and owns the most comprehensive public collection of Colorado rocks and minerals in the world. Roughly 25% of exhibits rotate annually.

The museum is committed to public outreach and community engagement in an effort to inspire an appreciation for Earth Science in all of our visitors. The museum is open seven days a week and admission is free.



(Above) In the mid-1890's, the Colorado Bureau of Mines created the "official" State Mineral Collection of Colorado which was exhibited at the Colorado State Museum Building at 101 14th St. in Denver, Colorado. This historically significant collection has resided at the Mines Museum of Earth Science since its transfer in 1965.



STRATEGIC PLAN

In 2019, under the leadership of Executive Director, Renata Lafler, and under the guidance of University Librarian, Carol Smith, Mines Museum's first strategic plan was developed.

The strategic plan was designed to be relevant long-term, while flexible enough to adjust to short-term needs. The plan consists of **five core goals** which will be re-evaluated by the Library & Museum Department with

input from museum stakeholders, every five years. An assessment of the past five years of museum progress and a re-evaluation of the strategic plan is scheduled for Fall/Winter 2024 upon arrival of the new University Librarian.

Within the five strategic goals are multiple directives which support the museum's mission and maintain a trajectory of growth and advancement.

FIVE CORE GOALS

1. Strengthen and deepen the Museum's engagement with Mines.

- a. Align with University initiatives; i.e. Mines@150
- b. Showcase faculty & student research
- c. Participate in interdepartmental collaborations
- d. Participate in campus events

2. Ensure long-term sustainability and grow organizational capacity.

- a. Fundraise
- b. Develop & diversify streams of museum revenue
- c. Structure volunteer workforce and recruit more diverse volunteers

3. Reorganize and expand Museum collections and exhibits with the goal of attracting a broader audience.

- a. Regularly rotate exhibits (roughly 25%)
- b. Improve collections storage space
- c. Formalize collections policies, including collection mission
- d. Update collections database & process deaccessions
- e. Digitize donation & loan objects
- f. Develop exhibits that engage a broad audience

4. Develop the Museum's brand and strengthen communications and marketing, both internally and externally.

- a. Museum name change
- b. New museum signage, brand, and logo (indoors & out)
- c. Professionally designed brochures & ads
- d. Participate in relevant professional development opportunities & join organizations to network

5. Establish the museum as a leader in Earth Science exhibition and outreach.

- a. Expand K-14 outreach offerings via tours, programs & events
- b. Improve existing teaching/educational kits

BY THE NUMBERS

2023

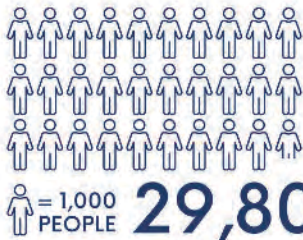
3,000+
ITEMS ON
DISPLAY



45,000+
TOTAL OBJECTS
IN MINES MUSEUM'S COLLECTION



147
YEARS OLD
IN 1877, JARVIS HALL WAS THE
FIRST BUILDING TO HOUSE
THE MUSEUM'S COLLECTION



29,800
VISITORS

\$37,800
CASH DONATED
FROM *38 TOTAL DONORS
*EXCLUDING ENDOWMENTS & DONATION BOX

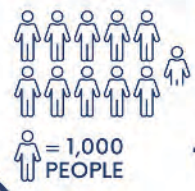


\$306K+
DONATED OBJECTS
FROM SIX TOTAL DONORS





OUTREACH & EVENTS



10,769
PEOPLE REACHED
 THROUGH OUTREACH PROGRAMS

5,500
FREE SAMPLES
 FOR THE PUBLIC AT THE MINI MUSEUM ALONG CLEAR CREEK



1,000
TRICK-OR-TREATERS
 AT THE SPOOKTACULAR THE HIGHEST ATTENDED EVENT



108
CONTACT HOURS
 VIA EDUCATIONAL OUTREACH



49
TOURS
 PAID & GUIDED (+23% YOY)



28
SCHOOL GROUP FIELD TRIPS
 PAID & GUIDED (+329% YOY)



37
EVENTS
 PAID RENTALS (+61% YOY)



BY THE NUMBERS (CONT.)

MORE STATS

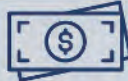
37 ACTIVE
VOLUNTEERS
EXCLUDING SPECIAL
EVENT VOLUNTEERS



3,000
VOLUNTEER HOURS

\$93K

LABOR VALUE
CONTRIBUTED BY MUSEUM
VOLUNTEERS



19
NEW
CAMERAS
UPGRADED FOR
ENHANCED SECURITY



\$236K
GROSS SALES
AT MUSEUM STORE (+20% YOY)



SUBSCRIBE HERE!

858
NEWSLETTER
SUBSCRIBERS



REVIEWS



Tripadvisor

Mines Museum of Earth Science

303 reviews • #1 of 58 things to do in Golden • Speciality Museums



4.8 RATING

GOOGLE REVIEWS

ACCORDING TO 1,100 REVIEWERS



Kevin Conroy AUGUST 2023

Local Guide · 92 reviews · 71 photos

★★★★★ 2 months ago

What a gem of a museum! The collection here is spectacular and exceeds the one at the gem collection at the Smithsonian museum in DC. If you are visiting Denver it's well worth a visit! My kids loved it



B P JULY 2023

Local Guide · 85 reviews · 24 photos

★★★★★ 3 months ago

Free, clean, extensive, and friendly! Be sure to stop at this gem of a place. We were traveling through Golden to get to Utah and stopped here to take in some of the Old West. By (happy) mistake we stumbled upon this museum and what we thought would be a quick walk through turned into hours of fun and learning! My son loves rocks and this museum is full of variety. The workers are also knowledgeable, helpful, and kind. I'm so thankful we were able to spend time here!



JZ MAY 2023

17 reviews · 1 photo

★★★★★ 5 months ago

Absolutely amazing! It's free admission, but we'd happily pay a high price to go again. They even have a fun game for kids that is actually quite challenging! Gift shop could easily let you get Christmas shopping done in one stop: unique, beautiful gifts for kids and adults, along with typical favorites like games and books. Helpful staff, beautiful arrangements. And even fossils and a moon rock on delicate display!



Alicia H.

@ 217 friends

447 reviews

2189 photos

Elite 2023

★★★★★ 9/3/23

Ok this museum is seriously awesome! AND it's free! My husband is really into geology / rocks / stones, so I knew he'd love checking this place out, but I also really loved it. It's crazy all the different stones they have on display & where they are all from. Make sure u go downstairs too! The amount from Colorado alone was impressive! My fav part was the rocks that glowed in the dark!!! What?!?! I didnt even know those existed! Mind blown lol.



Vera D.

@ 50 friends

37 reviews

20 photos

★★★★★ 9/9/23

If I could give this museum 10 stars I would. First of all it's free to get into which is a rarity and secondly it has the MOST spectacular collection of minerals. The minerals are all beautifully displayed in cases by region and it's easy to walk around the entire space. If you love minerals like I do than this is a place you want to visit. Through photos, historical pieces and a mine shaft simulation, the museum does a great job of honoring the miners who brought these precious gems to light. The museum is part of the Colorado School of Mines, their expertise shows in the quality of the museum exhibition. Do not miss. Beautiful and fun!

Overall rating



31 reviews



STUDENT IMPACT

Student museum associates are critical to the daily operation of the museum. Students execute a variety of tasks including: greeting guests, store transactions, leading tours & field trip activities, events, and special projects. In 2023, we welcomed student associates from seven majors including Civil Engineering, Com. Sci., Chemical Engineering, Geol. Engineering, Geophysics, Physics, and Mech. Engineering. We strive to create an inclusive, meaningful, and memorable work environment for our students.

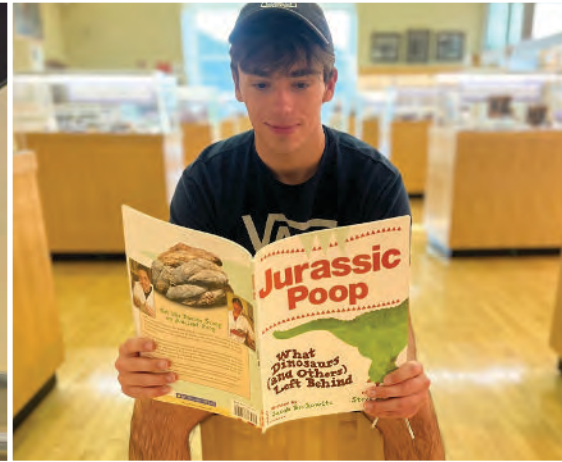
"WHAT I ESPECIALLY LOVE IS GIVING TOURS TO YOUNG GEOLOGISTS AND ENGINEERS-IN-THE-MAKING. IT ALWAYS MAKES MY WEEK WHEN I SEE A LITTLE KID LIGHT UP AND GET SUPER EXCITED ABOUT SCIENCE! I FEEL LIKE I'M MAKING A DIFFERENCE IN THEIR LIVES BY ENCOURAGING THAT CURIOSITY."
-KAREN P.

"THE MUSEUM HAS PROVIDED ME WITH A COMMUNITY THAT HAS MADE WORKING HERE MY FAVORITE JOB I'VE EVER HAD. NOT ONLY HAVE I MADE LIFE-LONG FRIENDS, BUT I HAVE GAINED VALUABLE WORK EXPERIENCE. THE MUSEUM IS A TRULY SPECIAL PLACE."

- REBECCA S.

2023 STUDENT EMPLOYEE DATA

TOTAL # OF STUDENTS	15
TOTAL HOURS	4,307
TOTAL PAID	\$63,243.45
WORK STUDY HOURS	1,461
WORK STUDY PAID	\$21,103.82
TOTAL FTE	2.07







OUTREACH & EVENTS

Due to a variety of factors, including limited space, funding, and human resources, the mission of Mines Museum does not include a research portfolio. The Colorado School of Mines is an R1 research institution and incredible advances in science are contributed across campus elsewhere. Instead, Mines Museum's pathway of distinction lies in its opportunity to reach more than 40,000 individuals annually, through museum admission, outreach programs, and events. For these reasons, the museum is committed to growing and diversifying our outreach programs and reach.

The museum's two largest community engagement events in 2023 were the annual Mines Museum Open House and Mines Museum Spooktacular, attracting over 200 guests and 1,000 guests, respectively. In addition to participating in a variety of

outreach events, both onsite and with offsite partners, the museum launched a quarterly, "Mineral ID Day," inviting the public to bring their mystery specimens to the museum for identification by a panel of experts. These popular events have also contributed to an increase in museum store sales.

2023 OUTREACH EVENT DATA

	TOTALS	% +/- YOY	% +/- 2019
People	10,769	+26%	+403%
Contact Hours	109	+35%	+142%
# of Events	21	+75%	+200%

DONATION HIGHLIGHTS

The vibrancy of Mines Museum's exhibits and the ability to expand our world-class collection depends on the generosity of donors. In 2023, six donors contributed nearly 400 objects across a variety of categories including fine mineral specimens, meteorites, and mining artifacts.

Highlights include the meteorite collection of the late Fred Olsen, comprised of sixty three unique specimens - the largest private collection of Colorado meteorites in existence. We extend our gratitude to Debbie Baldwin for facilitating this incredible gift.

One of the more unique objects donated to the museum this year is a functional tabletop ore processing stamp mill. It was created by the father of a Mines alumna (Class of '97) who was a machinist. Once a custom cover and base are fabricated, the stamp mill will be put out on display for our visitors to enjoy.

One hundred and fifteen specimens were added to our mineral collection including a suite of Mexican minerals, a top-quality bournonite from Bolivia, a variety of aesthetic zeolite minerals from India, and many more!

The museum also received a mining lamp collection of over 200 pieces donated by an alumnus (Class of '66). The lamps were collected by his parents, Mr. & Mrs. Jack McIntosh.



A sliced and polished section of the Admire Meteorite, a pallasite containing gemmy olivine crystals, donated by a local meteorite expert & enthusiast.

If you, or someone you know, are interested in making an in-kind donation to the museum, please visit mines.edu/museum for details or e-mail geomuseum@mines.edu.





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EXHIBIT HIGHLIGHTS

In order to attract a wider audience and to convert our guests into repeat visitors, Mines Museum rotates approximately 25% of existing exhibits annually. The museum maintains a presence at major gem and mineral shows via exhibition, including the annual Tucson Gem & Mineral Show hosted by TGMS, the Denver Gem & Mineral Show hosted by DGMS, and the Hard Rock Summit. The museum also welcomes special exhibits comprised of loaned objects yearlong, including themed displays, seasonal displays, as well as displays of recent donations and acquisitions. In addition to developing new exhibits, Curator, Ed Raines, consistently seeks to improve and expand existing exhibits. The India, Creede, China, and lapidary exhibits all received such attention this year.

New exhibits in 2023 represented a wide array of topics and themes including concretions, a major Colorado meteorite expansion, a very special triplet set of amazonite twins from the Last Hurrah Pocket in Teller County, and a faux-bulous exhibit of fakes and frauds. Seasonal exhibits included an eggs-cellent assortment of lapidary eggs and a collection of cerussite "snowflakes."

Off-campus, the museum showcased an incredible (and appetizing!) collection of Creede sowbelly agate in Tucson. At the Denver Convention Center, the museum brought the bling to the, "Treasure"-themed, Hard Rock Summit with a temporary exhibit featuring the Miss Colorado Crown. The Julie Hesse Colorado rough and cut gemstones sparkled at the Denver Gem & Mineral Show supporting the show's, "Gem Minerals," theme.



The Creede sowbelly agate & silver exhibit was a feast for the eyes during the Tucson Gem & Mineral Show in honor of the show's theme, "Silica."

If you are interested in loaning an exceptional collection for exhibit at the museum, please e-mail eraines@mines.edu.



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mines.edu/museum

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