Digital Initiatives Symposium

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Metadata and Minerals: A Library – Museum Pilot Project

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Metadata and Minerals: A Library – Museum Pilot Project

Presenter 1 Title
Special Formats Metadata Librarian

Session Type
45-minute concurrent session

Abstract
The Arthur Lakes Library and the Geology Museum at Colorado School of Mines (Mines) worked together to explore ways to promote the Museum's unique collections. A task force formed to conduct a pilot project that involved creating digital access, via Mines Institutional Repository, to a set of the Museum's mineral specimens from Creede Mining District. The Metadata Librarian collaborated with the Museum Collections Manager throughout this process to establish metadata requirements and workflows. This presentation explains how the pilot project came about and describes the preparation, metadata and workflow development, as well as the collaborative experience and evolution of this project.

Location
KIPJ Room D

Keywords
museum, metadata, collaboration, institutional repositories, workflows, pilot projects, mineral specimens

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Metadata and Minerals: A Library – Museum Pilot Project

Christine Baker
Special Formats Metadata Librarian

[Logo: Arthur Lakes Library, Colorado School of Mines]
Presentation Outline

- Background information
- How this project came about
- Project preparation
- Workflow overview
- Evolution of the project
- Next Steps
- Conclusion
About Colorado School of Mines

- Located in Golden, Colorado
- Applied Science and Engineering School
- A little more than 6,100 students
- Focus on earth, energy, environment
- Arthur Lakes Library
- And ...
The Colorado School of Mines Geology Museum, home to one of the state’s two Goodwill moon rocks collected during the Apollo 17 mission, was started in 1874 and displays mineral, fossil, gemstone, meteorite and historic mining artifact exhibits on two floors.

The museum serves as the state repository for Colorado’s mineral heritage and promotes its importance and understanding to the university community and the public. It aims to inspire scientific curiosity through education and research while encouraging appreciation of the earth and responsibility for its mineral, fossil, meteorite, and historic mining treasures.

https://www.mines.edu/geology-museum/
How Did I Get Here?
This journey began with ...

- The arrival of a new University Librarian (Fall 2016)
- A Strategic Planning Process with the Geology Museum (Spring 2017)
  - “Expand repository representation of special and museum collections.”
- [Image: Mountain Scholar Digital Collections of Colorado & Wyoming]
Joint Library – Museum Committee

• Formed and met in August and September 2017

• Outcome of August meeting – highlight some Museum mineral specimens in Mountain Scholar

• My action items:
  • Explore best practices for museum and mineral metadata
  • Look into metadata mapping/crosswalking requirements
  • Review Museum’s mineral database
  • Report back to group in September
Some sources consulted leading up to September 2017:

- Museum’s Mineral Database – maintained by Museum Collections Manager
- Denver Museum of Nature and Science (Bailey Library Image Archives - Geology)
- Mindat.org
- CSU Repository and CSU DSpace administrators
- Mines special collections records
- Getty Research Institute Metadata Standards Crosswalk
- And later … Michigan Tech specimen picture gallery and other universities with geology museums
September ...

- Draft mineral metadata template approved by CSU Repository Specialist
- Mineral specimen example added to DSpace Test
- Task Force formed to complete a Pilot Project by end of 2017
Stone Temple Pilot Project

- Tasked with developing workflows and future recommendations for the digitization and ingest of Museum mineral specimens into Mountain Scholar

- The Team: Laura Guy (systems librarian and project manager), Nick Iwanicki (special collections librarian and interim museum director), Ed Raines (museum collections manager), and me (special formats metadata librarian)
Stone Temple Pilot Project continued...

▪ Focus: Minerals from Creede Mining District in Colorado

▪ Ed: Images and mineral specimen descriptions for 23 mineral specimens

▪ Christine: Metadata, ingest, and workflows (with input from Ed)
Collaborating with Ed ...

- Discussed terminology and metadata elements
  - Metadata, Dublin core, LCSH, specimen ID/catalog number
  - Specimen dimensions, donor information, location information, specimen ID ...

- Established a workflow – image file names, spreadsheets!

- Worked to ensure accuracy and integrity of the metadata

- Scalability – works well on small scale
Landing page for one of the Creede mineral specimens
Sowbelly agate (banded quartz varieties amethyst and chalcedony)

- **dc.contributor.author**: Raines, Ed
- **dc.coverage.spatial**: North America
- **dc.coverage.spatial**: United States
- **dc.coverage.spatial**: Mineral County (Colo.)
- **dc.date**: 2017
- **dc.date.accessioned**: 2017-12-05T22:24:13Z
- **dc.date.available**: 2017-12-05T22:24:13Z
- **dc.identifier**: Specimen ID: 56136
- **dc.identifier.url**: https://hdl.handle.net/11124/171931
- **dc.description**: Mineral specimen donated by Friends of the Colorado School of Mines Geology Museum in 2015.
- **dc.description**: Photographed by Ed Raines.
- **dc.description**: Specimen size: 13 x 8 x 0.5 in.
- **dc.description.abstract**: Sowbelly agate (banded quartz, varieties amethyst and chalcedony) from the Amethyst vein of Last Chance Mine, Creede mining district, Colorado.
- **dc.publisher**: Colorado School of Mines. Arthur Lakes Library
- **dc.relation.ispartof**: Collection of the Colorado School of Mines Geology Museum
- **dc.rights**: Digital image copyright is retained by Ed Raines.
- **dc.subject**: Amethyst crystals
- **dc.subject**: Trigonal crystals
- **dc.subject**: Chalcedony
- **dc.type**: Photograph
- **dc.contributor.institution**: Colorado School of Mines. Geology Museum

**Files in this item**

- **Name**: 56136SowbellyAgateLastChanceMi...
- **Size**: 1003 KB
- **Format**: JPEG image
Evolution of the Project ...

- Added Gilman Mining District mineral specimens
  - Leadville and Aspen mineral specimens coming soon!

- ED Talks!!!

- Created associated LibGuides to provide more educational and historical background information
Minerals of Creede, Colorado showcases the Geology Museum's collections of specimens from the Creede District, one of Colorado's most distinctive mining districts. To see the full collection, visit Minerals of Creede, Colorado, in Mines Geology Museum's digital Mineral Specimens community, Digital Collections of Colorado.

Located in the San Juan Mountains, the Creede District in Mineral County is in the Outer Zone of the Colorado Mineral Belt (COMBL). Discovered in 1899, it is the last of the state's great silver bonanzas.

See Minerals of Creede, Colorado (full collection)

Examples of Specimens in this Collection

![Barite with Micropyromorphite Crystals](image)

The Beginning of Creede

Following several relatively insignificant discoveries in the area, Nicholas C. Creede (real name-William Harvey) located the Holy Moses Mine on East Willow Creek in 1889. Prominent Denver banker, mining-magnate, and railroad-man David Moffat financed successful exploration efforts that resulted in several productive claims being staked, and personally financed a spur rail line into Creede. This assured a steady stream of prospectors, entrepreneurs, business men and women, along with a wide assortment of the ner-do-wells that joined each new mining boom town. And Creede BOOMED. Loudly. The stories of the boom are among the state's most colorful.

Mineral Deposits

The Creede District's mineral deposits are tied directly to the geology of the San Juan Mountains. The precious metal bearing veins are located along a major fault system formed during the collapse of a volcano in what must have been a spectacular fireworks show and just one of a series of massive volcanic eruptions nested in the huge LaGarita Volcanic Caldera, one of the largest such features known.

The CSM Geology Museum is home to several collections of specimens from Creede's deposits. (Courtesy, Ed Raines, Mines Geology Museum, 2018.)
Libguide created by Lisa Dunn and Ed Raines.
Next steps for mineral specimens workflow

- One shared spreadsheet? Abstract?
- Additional metadata elements?
- Digital image and metadata assistance?
- Shared online space!
- Add Creative Commons license
- Link to LibGuides from Mountain Scholar
Concluding Remarks ...

- Developed a workflow that can be applied to other Museum digitization projects

- Time intensive

- Combined strengths of the Library and of the Museum

- Developed positive relationships and connections for future collaborations
Thank you and Rock on...

Pilot Project Team: Ed Raines, Christine Baker, Nick Iwanicki, and Laura Guy next to the Creede Mining District display case at Mines Geology Museum. Photographed by Daniel Schlegel, Jr.

https://mountainscholar.org/handle/11124/171840
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