

Working toward best practices  
of collection stewardship:  
Viewing a museum's diverse collections  
as materials types



**Julianne Snider**  
*Assistant Director*

EARTH AND  
MINERAL  
SCIENCES  
**MUSEUM &  
ART GALLERY**

*The Pennsylvania State  
University, University Park*

# Museum history

1896: PA geological cabinet

1910: Mineral Museum

1917: Mining Museum

1928–1953: Mineral Industries  
Museum



1910

1950

## 1928–1953

- 3 exhibit galleries
- 0.25 miles of hallway displays & exhibits cases

## 1953–2004

- consolidation into one gallery



1956

1996

# 1953-2004

Collections continue to grow

- More than 18,000 rocks and minerals
- More than 1000 historic mining & mine safety artifacts
- More than 300 pieces of artwork in the Steidle Collection of American Industrial Art
- fossils, laboratory equipment, maps, publications, miscellaneous objects

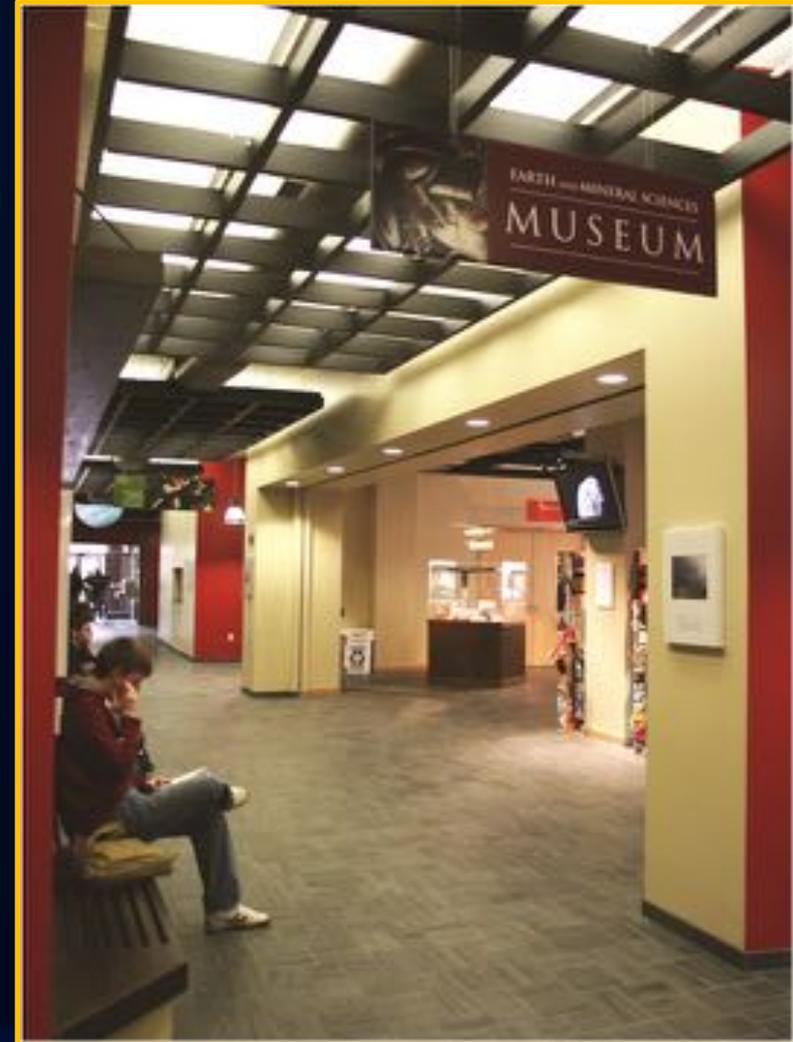


# 2004 EMS College Commitment

- Revitalize the museum
- Hire a new director
- Build 2 new exhibit galleries

## 2005

- Close old gallery
- Remove hall display cases
- Open new galleries
- Pack geology collections for move to off campus storage
- Hire museum director



# 2006

## Hire Assistant Director Collections & Exhibits

- Facilitate move of collections off campus
  - Identify collections & collections locations
  - Specify collection storage conditions to accommodate all collections
- Interpret collections
  - Use in exhibits and education about college disciplines, research, and scholarship

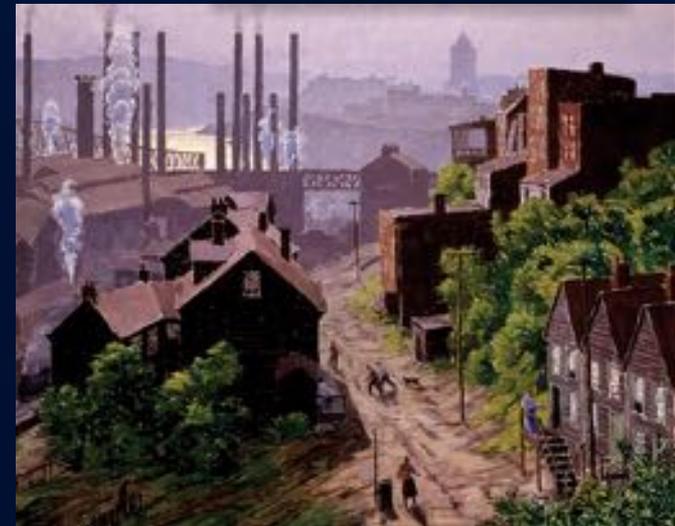
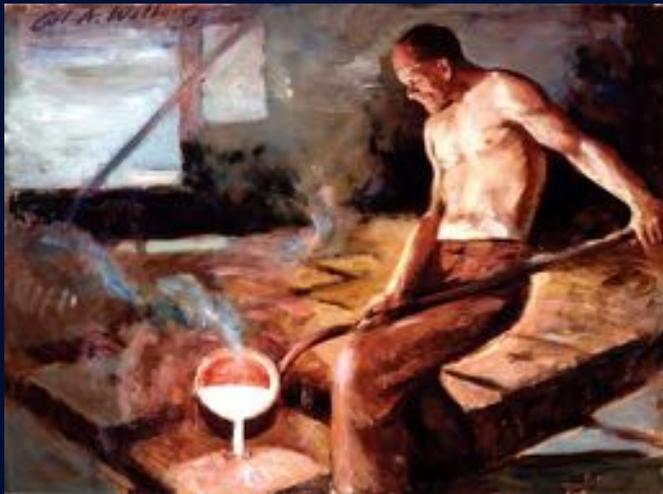






# Steidle Collection of American Industrial Art

## Mid-20<sup>th</sup> Century Extractive Industries of Pennsylvania



# Collections “storage”

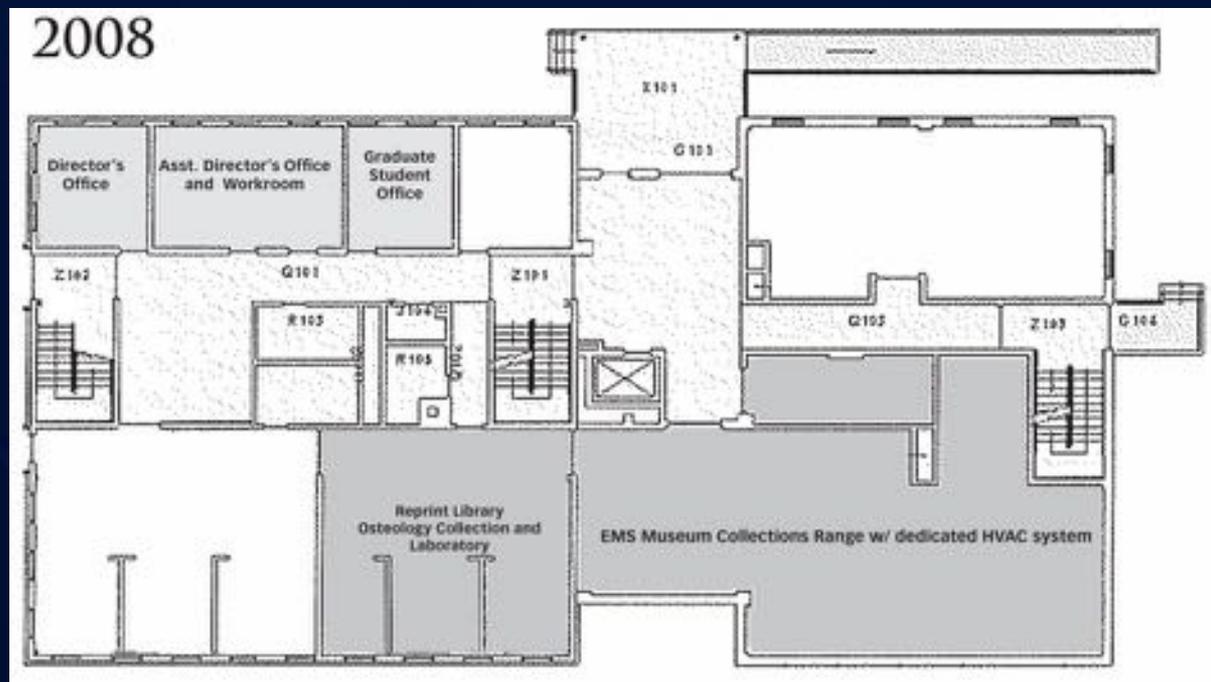
- Art Collection
  - old exhibit gallery—on walls, in drawers, inside false walls
  - departmental offices & supplies closets
  - college mailroom
  - Offices of the Bureau of Mine Safety, Washington, DC
- Geological Collections & Historic Mining Artifacts
  - basement storerooms, rooftop storerooms
  - other campus buildings: Coal Barn, Blue Band Building, etc.

# Collections documentation

- Edward Steidle publications on mineral resources conservation
- PhD dissertation on Edward Steidle as Dean
- Handwritten inventory of rock & mineral collection
- Invoices, articles, correspondence, exhibit photos
- Card catalog of rock & minerals, paintings, and miners lamps
- Handwritten ledgers of minerals procured 1949-1963
- Black and white photographs of paintings and minerals taken in 1965
- 4" x 5" color transparencies of paintings and sculptures taken in 1986

## 2006–2008

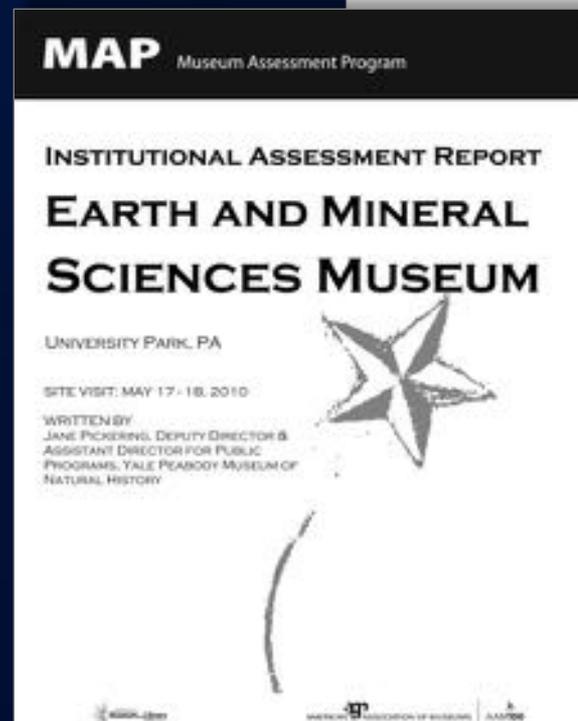
- Special Services Building
  - 5 miles from EMS Museum exhibit galleries
- EMS Museum Center for Research, Education, and Collections (CERC)
- Climate controlled, limited access, secure facility



# 2010 CAP & MAP

## Reports

- Detailed
- Recommendations for improvements
- Recommended priorities
- Short term goals
- Long term goals



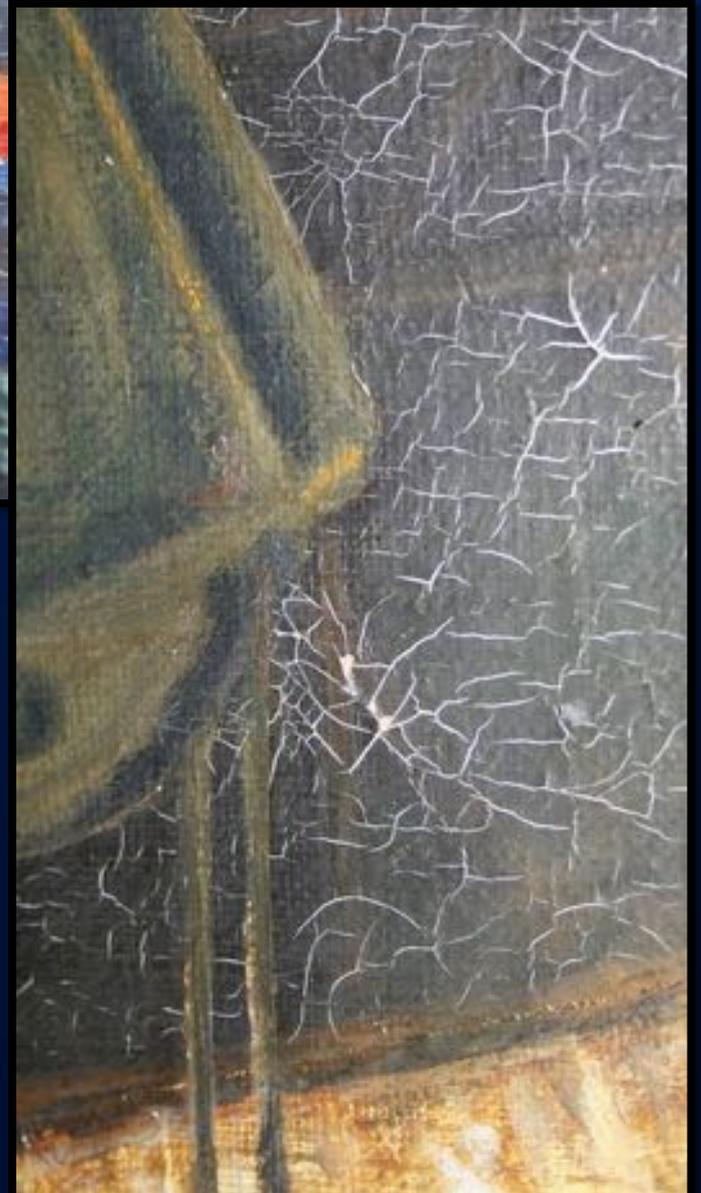
# 2012 IMLS Grant

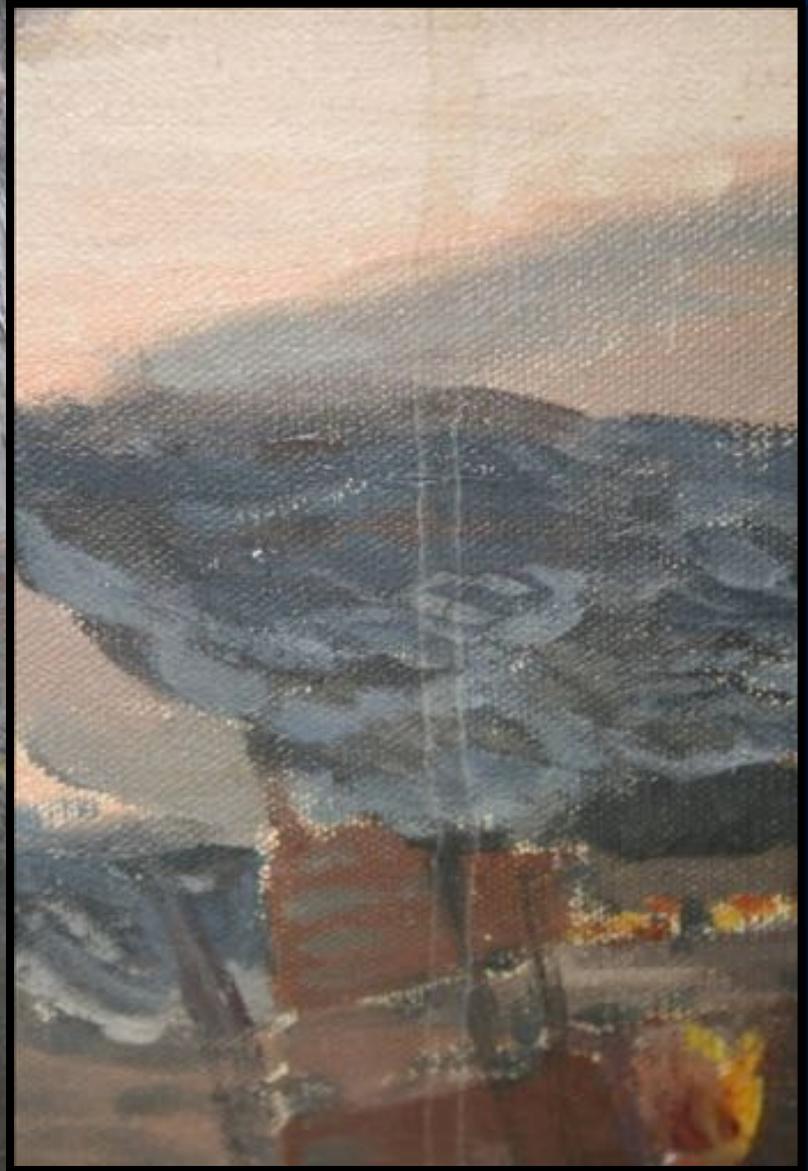
Environmental improvement for art collection

- Art racks on compactors
- Collections management software (PastPerfect)
- Conservation assessment of art collection









# Masonite





## Edward Steidle, Dean 1928–1953

Museum Collections = Resource for Teaching and Learning



## Art Gallery Devoted to Mineral Industry

*In a Pennsylvania State College Museum There Are Thirty-Seven Paintings Portraying Coal-Mining, Quarrying, Natural-Gas Production, Pottery, Fuel-Technology, Metallurgy*



*By-Product Coking Plant, by A. H. Gerson, one of the group of thirty-seven paintings at Pennsylvania State College*

Perhaps the only art gallery and museum devoted exclusively to the development of the mineral industry has been created by Dean Edward Steidle of the Pennsylvania State College's School of Mineral Industries.

The work of eleven artists, the oil-paintings in the present group (six of which are here reproduced) are displayed in the conference-room of the School's five-year-old building.

As one of the greatest mineral industrial commonwealths in the world, Pennsylvania's mineral wealth also is the source of its evolution as an industrial center.

The thirty-seven paintings, presented by alumni, private citizens, and State industries, as part of the gallery's collection of fifty which the Dean hopes to obtain, portray scenes from coal-mining, quarrying, the production of natural gas and petroleum, pottery, fuel-technology, and metallurgy.



*Drilling Rig, by Christian J. Walter*



# 1939—Mineral Industries Building foyer mural

coal mining, steel production, petroleum (oil & gas)



*Changing Shift; The Cast; Changing the Bit*  
Edmund Marion Ashe (1867-1941)

# 1950—Mineral Sciences Building foyer mural

Geosciences, Mining Engineering, Material Sciences



*untitled*  
1950  
Hiram  
Draper  
Williams  
(1917-  
2003)



# 2013 IMLS Grant

Stewardship improvement for geological collection

- 3 years
- Unpack collections (boxed since 2004)
- Data base all specimens
- Photograph all specimens
- Transcribe specimen records



The Pennsylvania State University  
College of Earth and Mineral Sciences Museum

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Acc. . . . . Cat. No. . . . .  
Name: *Practically worthless piece of*  
*radioactive mineral*  
Locality . . . . .  
*Mauch Chunk Fm?*  
Remarks: . . . . .

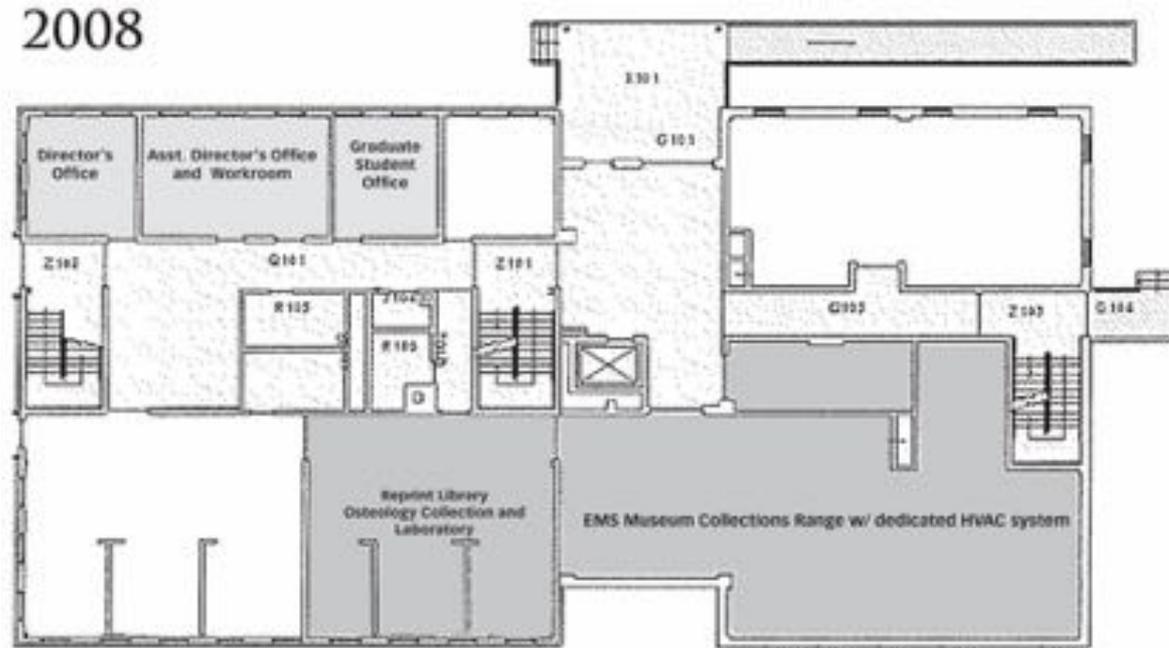


# Micro-climate storage containers

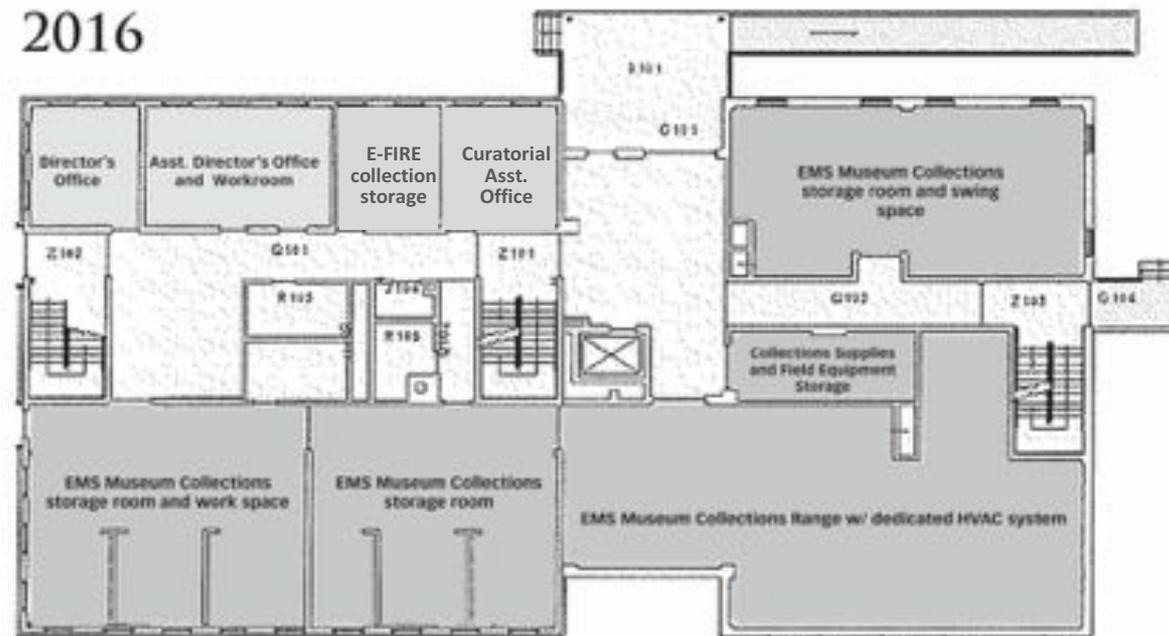
Gretchen Anderson  
Conservator  
Carnegie Museum  
of Natural History



2008



2016



# 2017 IMLS Grant

Stewardship improvement for geological collection

- 3 years
- New storage furniture
- Geological collections assessment
- Professional development workshops collections care and risk assessment



# Sustainability

More than environmental conditions and use of space

More than rethinking collections types & storage

—thematic, interrelated objects, material composition

More than reinterpreting collections exhibits & programs

More than public recognition of collections

## Recognition collections as university asset

- Support & promote the university's mission
- Central to programs of teaching, research & service
- Embody scholarly heritage of research
- Unique resource of knowledge
- Relevant to current and future research
- As important to maintain as electronic data

# Partnerships

PSU Physical Plant Sustainability Office  
—LED lighting energy savings program

PSU Physical Plant Security Office  
—public spaces monitoring and safety program



# Partnerships

## Earth and Mineral Sciences Library

- Academic disciplines focused exhibits
- Collaborative programming

## PSU Museum Consortium

- Museum professional development workshops
- Collaborative promotions and programming



# Partnerships with faculty and researchers

- Center for Science and the Schools (CSATS)
  - i-STEAM Workshops (K-12 teacher professional development programs)
- Civil Engineering—analysis of degrading pyrite for research of construction aggregate



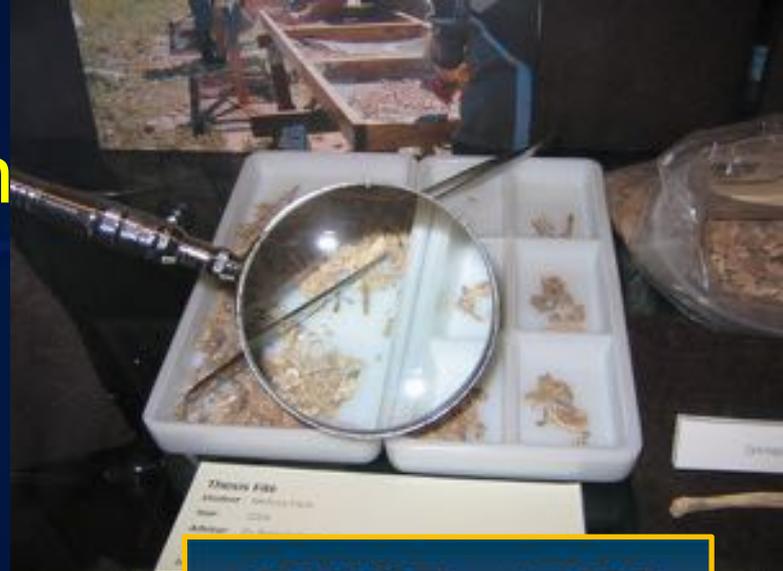
# Partnerships with faculty and researchers: NSF Broader Impacts

- Meteorology—Tornado machine exhibit
- Seismology—Real-time seismic monitors exhibit
- Hydrology—  
Augmented  
Reality  
sandbox  
exhibit



# Undergraduate education

- Senior Thesis exhibitions
- Center for Advancement of Undergraduate Studies and Experience (CAUSE)  
—communicating science research
- Engaged Scholarship opportunities
- Pennsylvania History class  
—museum collections as original source material
- Freshmen Honors Writing  
—museum exhibits and descriptive writing



# Graduate student education

- Mining Engineering independent research projects
- Communicating Science in a Museum Context graduate course
- Informal Science Learning and Teaching education research site
- Object-based research opportunities
- Internships



# Higher Achievement art & science workshop



# Beyond the Edge: art & science exhibition

**Opening Event!**  
**BEYOND THE EDGE OF THE SEA**  
WATERCOLORS FROM THE DEEP SEA WILDERNESS

**LIFE IN THE DARK**  
EXTREMOPHILES—CREATURES LIVING IN  
EXTREME ENVIRONMENTS

- Join Penn State scientists and the **Earth and Mineral Sciences Museum & Art Gallery** to learn about and see extremophiles from glaciers, caves, and the ocean floor.
- Activities and exhibits open to families, students, art lovers, science geeks, and inquisitive folks.

**FEBRUARY 20 • 1:00-3:00 PM**  
Ground Floor, Deike Building  
8th Floor, 75 E. Lock, South of Pollock, Penn State University Park campus



*Lure of the Mine & Anthracite Fields:*  
coal mining, art history & musical composition



# Collaborative exhibition: material science & art



# Collections repository

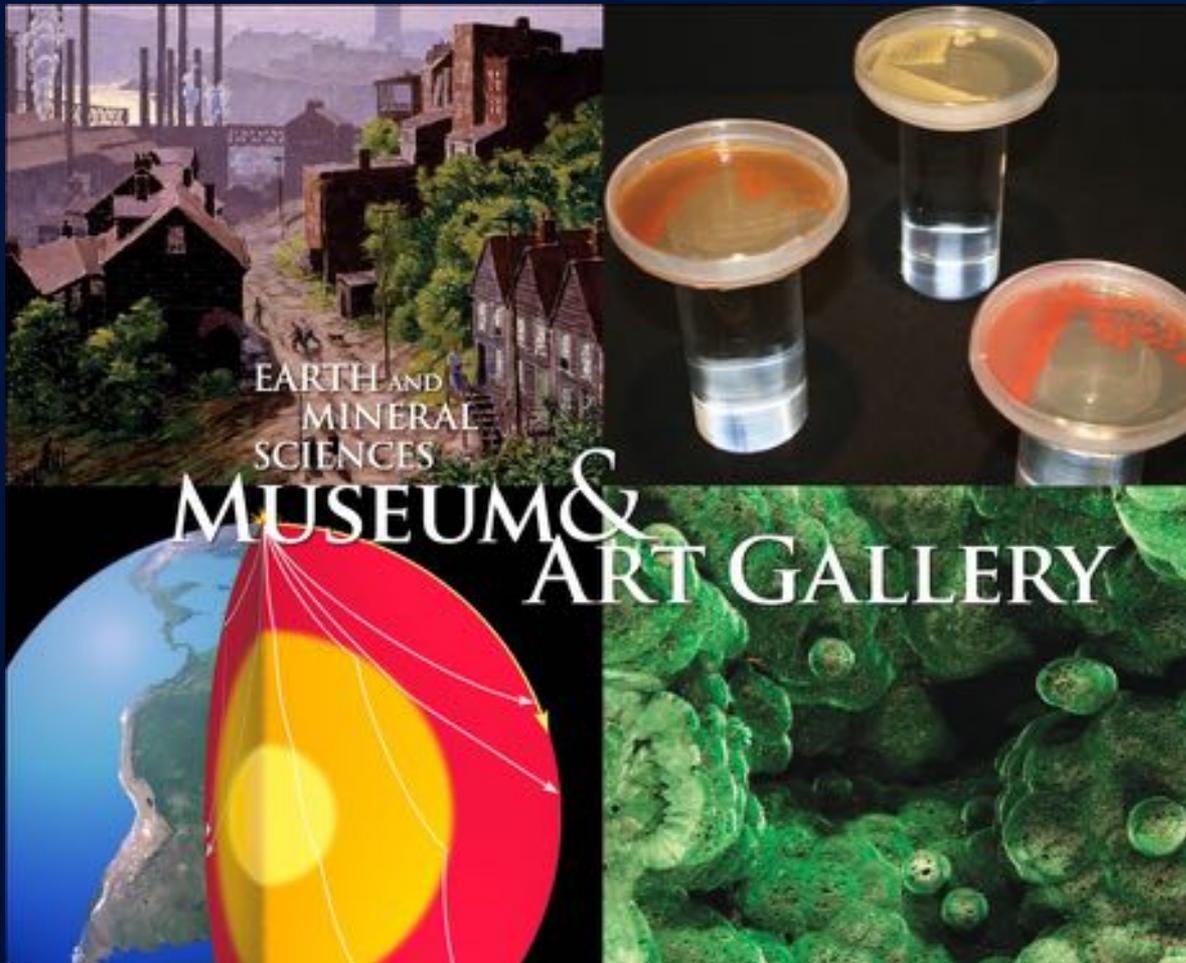
E-FIRE (Ex Terra Field Institute and Research Endeavor)

- different approach to collections



# Sustainability & Interpretation

- Collection care fundamental to maintaining scholarly heritage of university
- Collections relevant to university mission
- Collections act as agents of education, research, and cultural history
- Collections viewed as unique, irreplaceable knowledge resource
- Collections are priceless intellectual assets
- Collections are documentation of human exploitation of mineral resources
- Collection objects aligned thematically
- Collection objects' environmental needs based storage



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