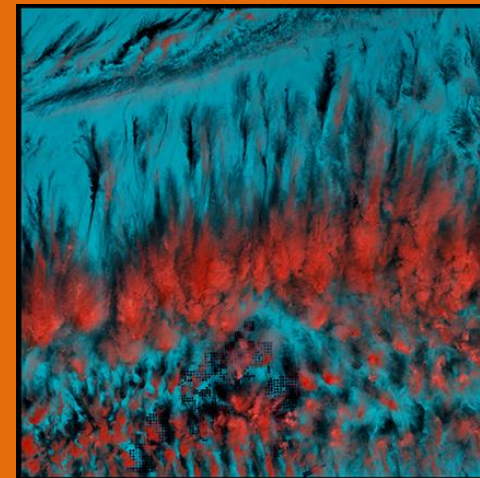
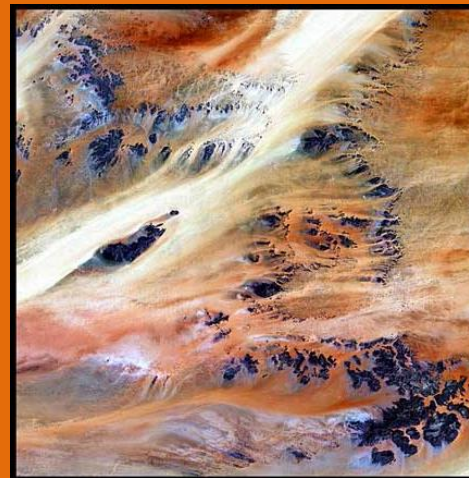
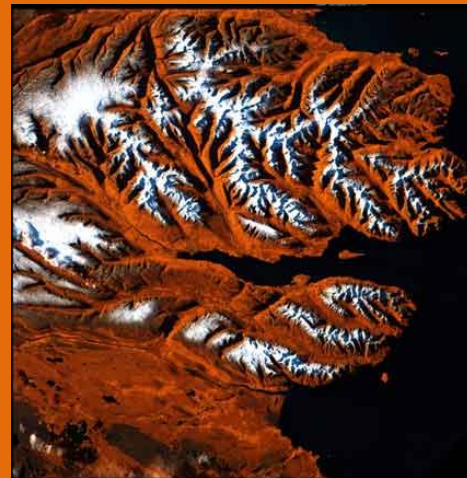
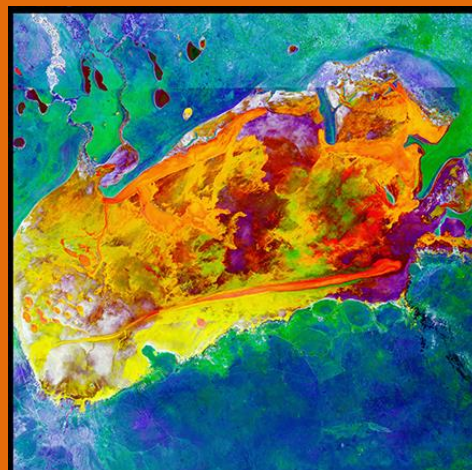


Using Government Art Sources for Chemistry, Geosciences, and Environmental Studies Library Research February 25, 2021

Emily C. Wild, Chemistry, Geosciences and Environmental Studies Librarian
ewild@princeton.edu 609-258-5484



Past Chemistry, Geosciences, and Environmental Studies webinars, Princeton University

January 2021 : From the Rocks to the Stocks - Library Research with a Geosciences Librarian and a Finance

Librarian <https://www.fdlp.gov/from-the-rocks-to-the-stocks-library-research-with-a-geosciences-librarian-and-a-finance-librarian>

October 2020 : Library Research for Natural Hazard Events: Earthquakes, Hurricanes, Volcanoes, and

Wildfires: <https://www.fdlp.gov/library-research-for-natural-hazard-events-earthquakes-hurricanes-volcanoes-and-wildfires>

September 2020 : Pharmaceutical Research Sources Available for COVID-19 <https://www.fdlp.gov/pharmaceutical-research-sources-available-for-covid-19>

August 2020: Library Research for Energy, Minerals, and Uranium Resources <https://www.fdlp.gov/library-research-for-energy-mineral-and-uranium-resources>

July 2020 : Library Research for Atmospheric and Oceanic Sciences (Including Climate Change) <https://www.fdlp.gov/library-research-for-atmospheric-and-oceanic-sciences-including-climate-change>

March 2020: Library Research for Water Resources <https://www.fdlp.gov/library-research-for-water-resources>

January 2020: Introduction to Geosciences Library Research <https://www.fdlp.gov/introduction-to-geosciences-library-research>

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Past webinars, U.S. Geological Survey (USGS)

USGS Library Materials for Natural Hazards <https://www.fdlp.gov/usgs-library-materials-for-natural-hazards>

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Quick Bio



Emily C. Wild

Lewis Science Library, Princeton University

ewild@princeton.edu

Schedule a Research Consultation :

Monday – Friday

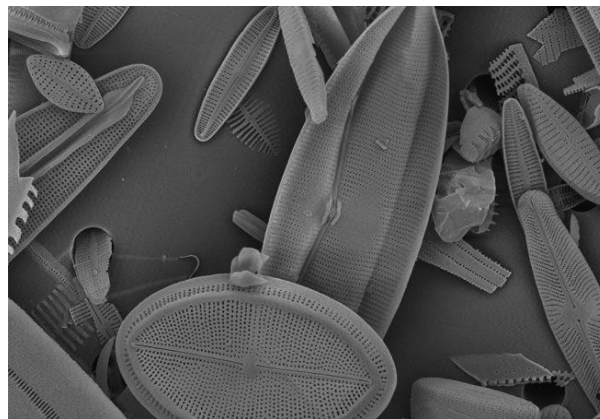
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Princeton University Library, 2018-Present
Chemistry, Geosciences and Environmental Studies Librarian
<https://library.princeton.edu/staff/ewild>

U.S. Geological Survey: <https://www.usgs.gov/staff-profiles/emily-wild>
- Denver, Colorado : 2008-2018 - Librarian (Physical Scientist)
- NH-VT & MA-RI: 1996-2008 – Hydrologist

Master of Library and Information Studies (MLIS), Univ. of Rhode Island
Bachelor of Arts (Geology), Hartwick College, Oneonta, New York

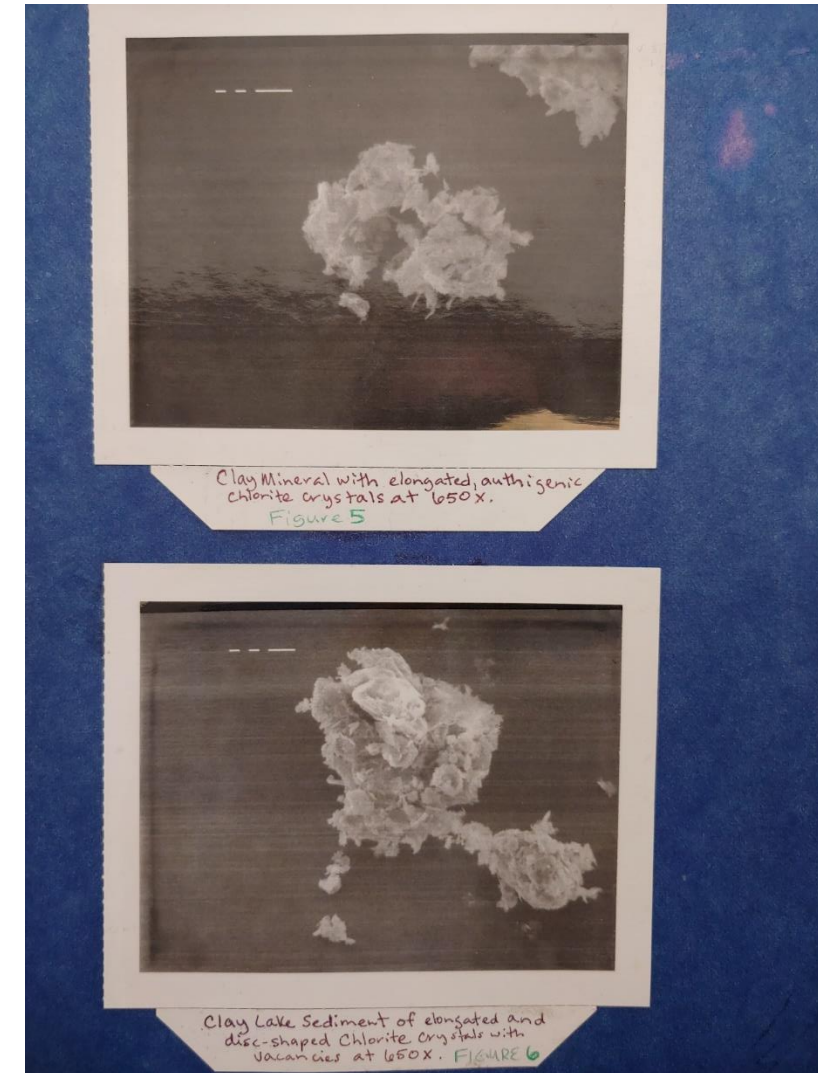
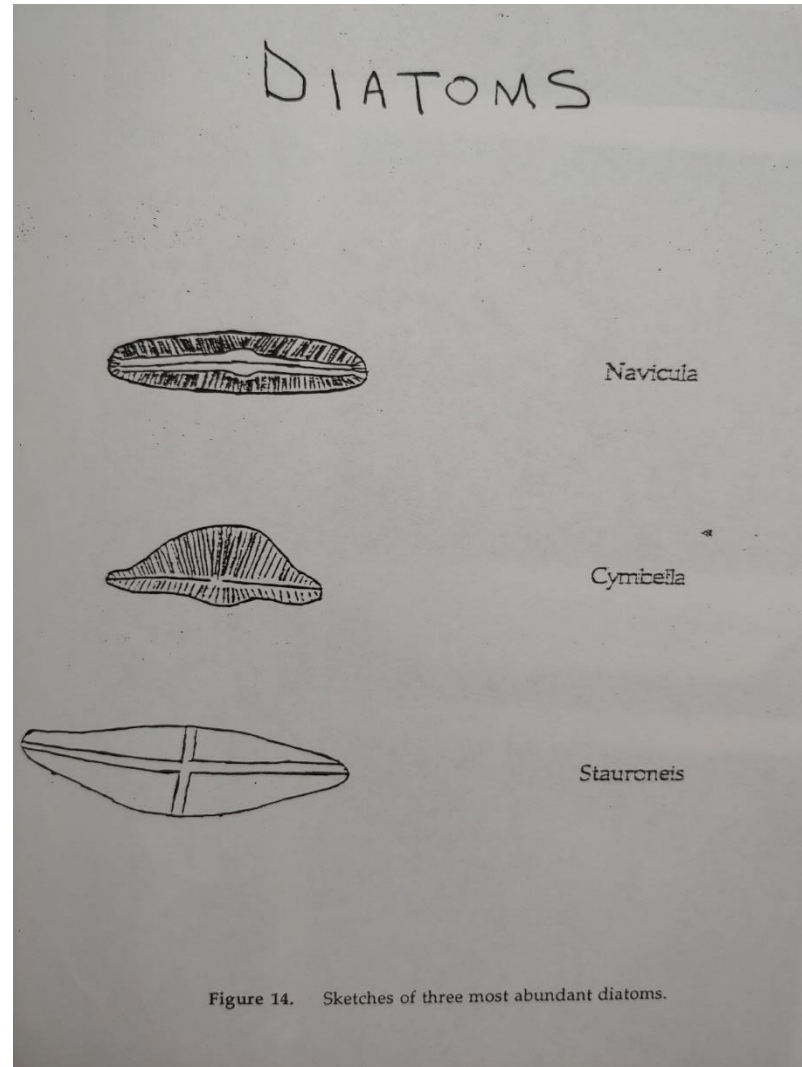
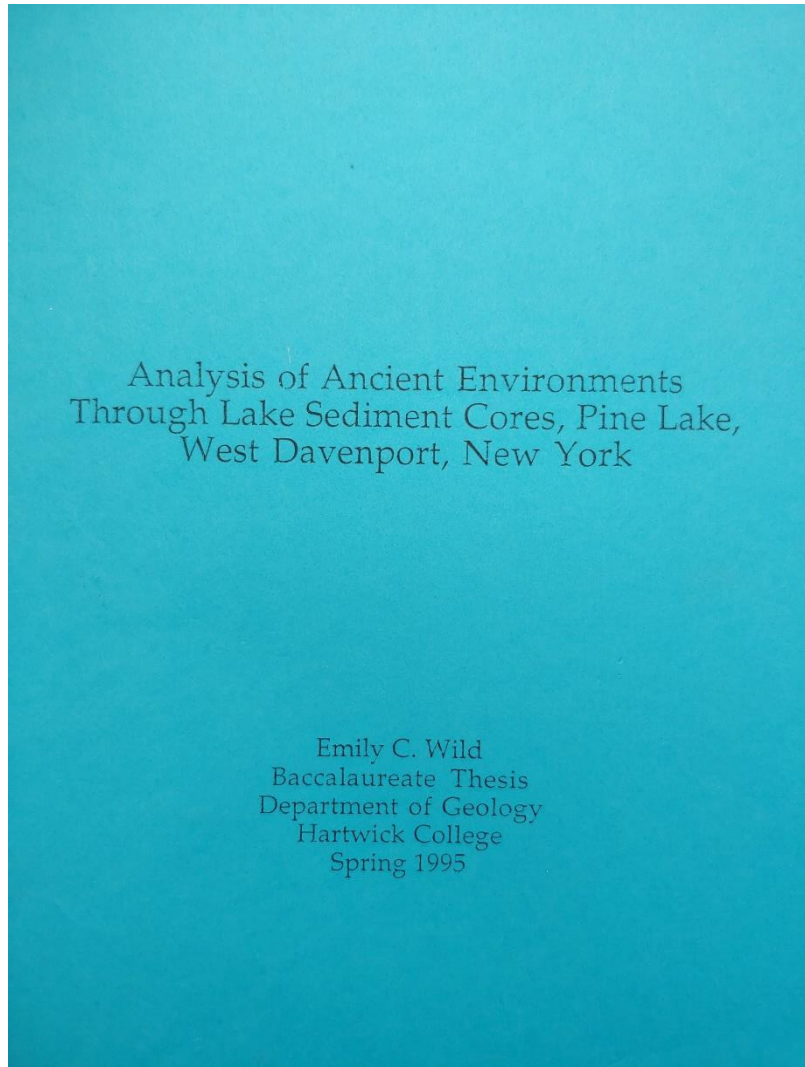


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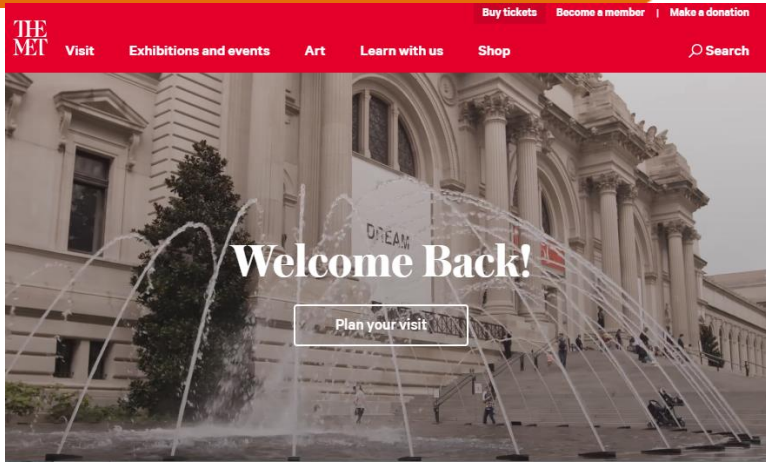
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“Analysis of Ancient Environments through Lake Sediment Cores, Pine Lake, West Davenport, New York”





- **Why Art Museums and Art Collections?**
- **U.S. Geological Survey (USGS) Publications & Collections**
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- **Princeton University Museum Collections & Exhibits**
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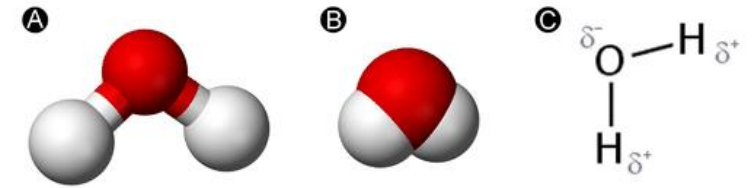
Learning Styles

Visual Learners. Students who best internalize and synthesize information when it is presented to them in a graphic depiction of meaningful symbols are described as visual learners

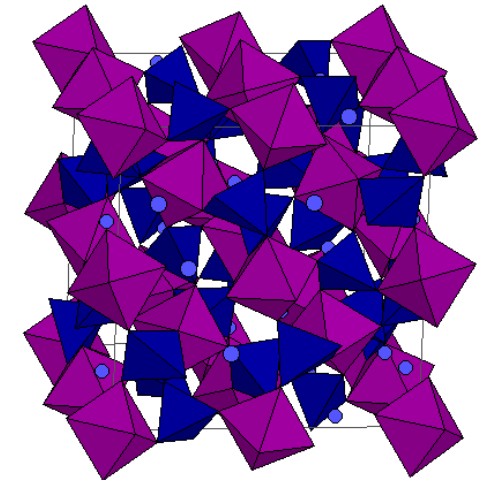
Auditory Learners

Reading/Writing Learners

Kinesthetic & Tactile Learners



Water



Garnet

<https://www.metmuseum.org/>

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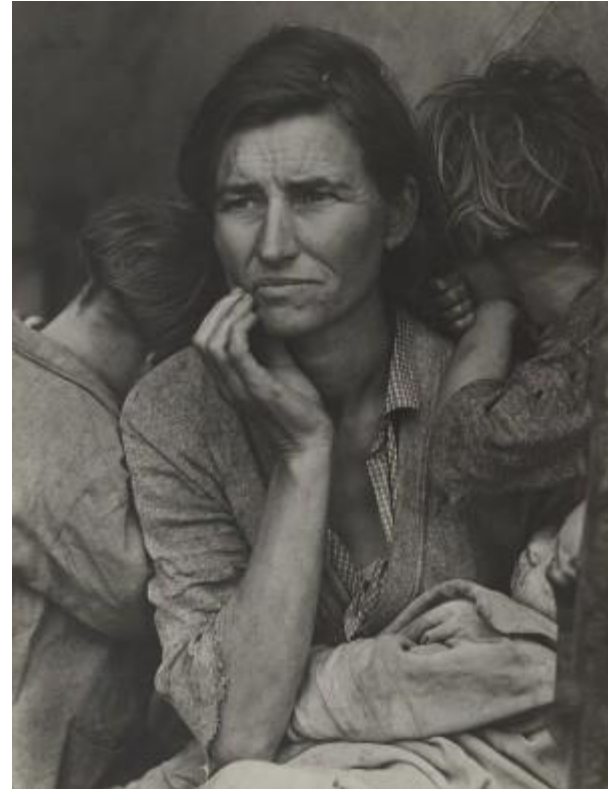
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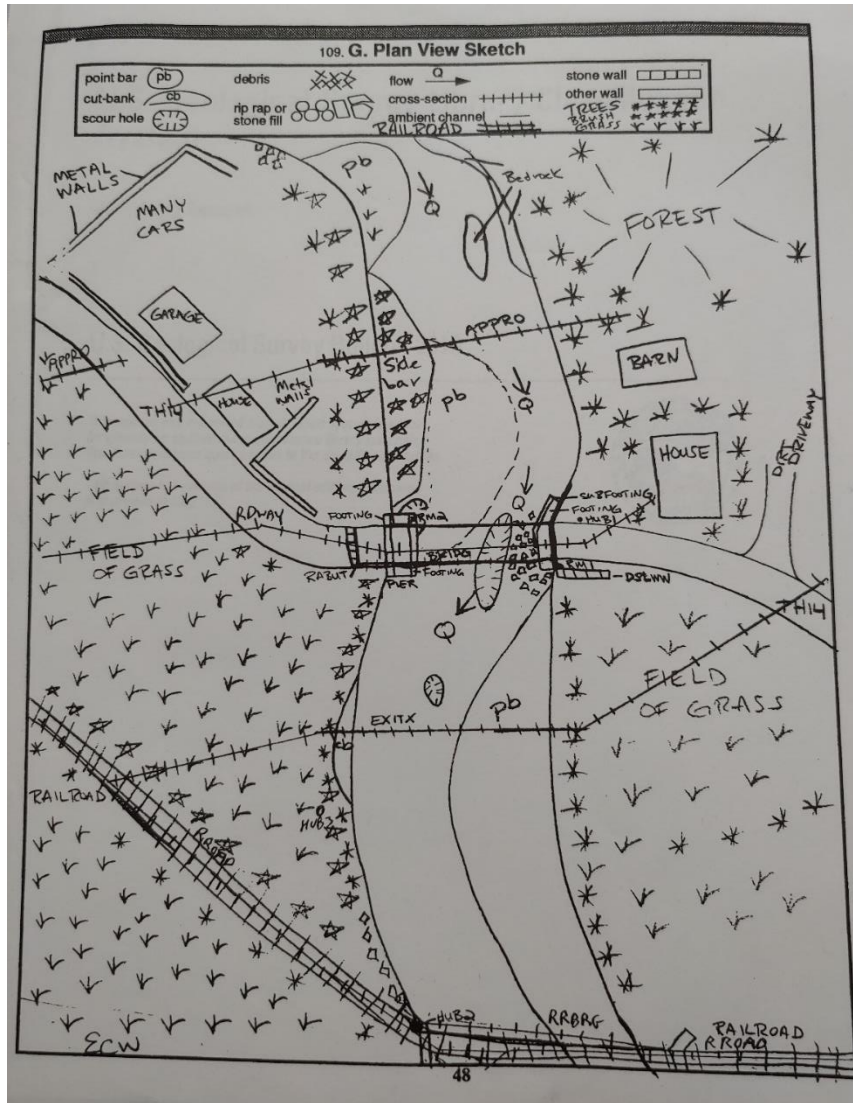
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USGS Field Work Example

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Geology in the Field

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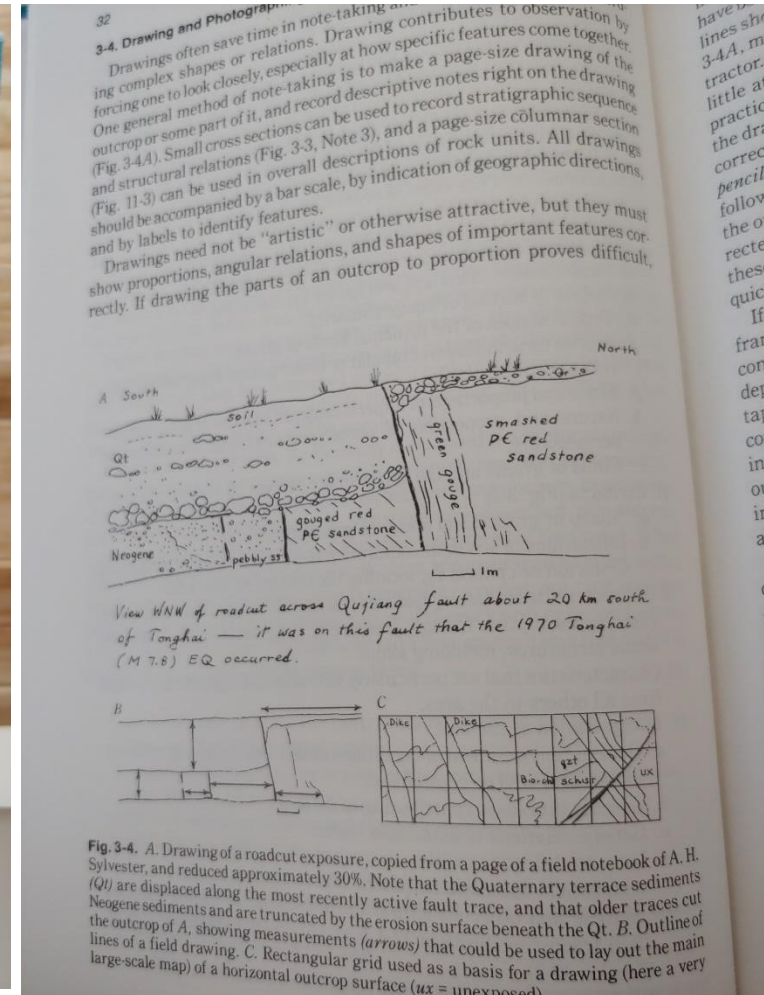
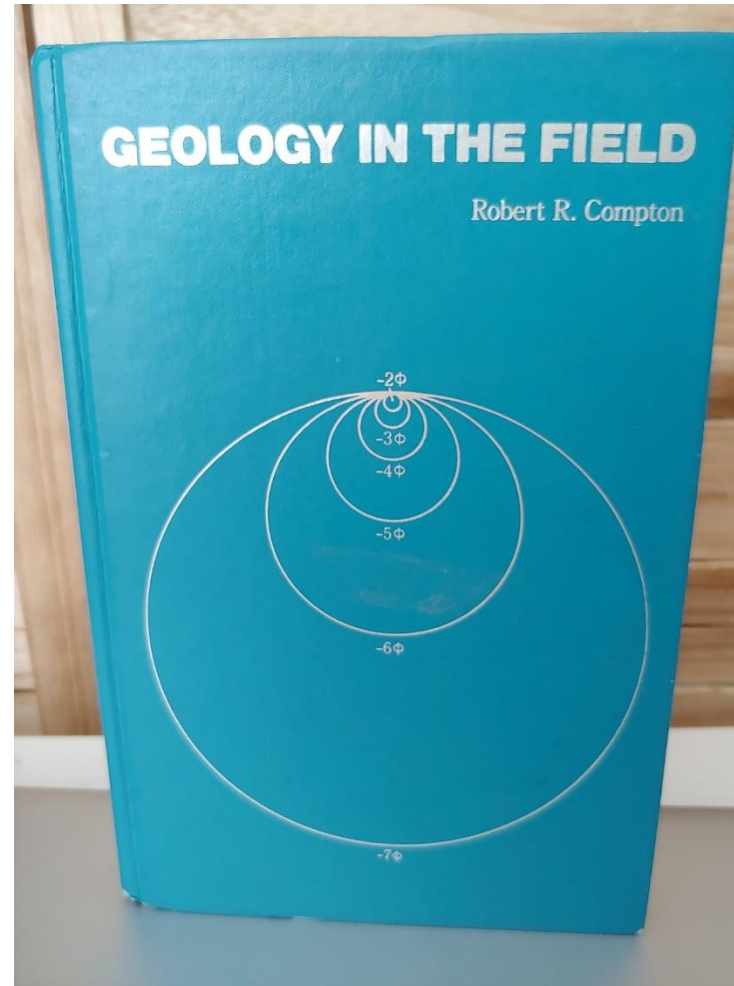


Fig. 3-4. A. Drawing of a roadcut exposure, copied from a page of a field notebook of A. H. Sylvester, and reduced approximately 30%. Note that the Quaternary terrace sediments (Qt) are displaced along the most recently active fault trace, and that older traces cut the outcrop of A, showing measurements (arrows) that could be used to lay out the main lines of a field drawing. C. Rectangular grid used as a basis for a drawing (here a very large-scale map) of a horizontal outcrop surface (ux = unexposed).

Strategies and Perceptions of Students' Field Note-Taking Skills: Insights From a Geothermal Field Lesson

Jacqueline Dohaney,^{1,2,a} Erik Brogt,^{2,3} and Ben Kennedy^{1,2}

ABSTRACT

Field note-taking skills are fundamental in the geosciences but are rarely explicitly taught. In a mixed-method study of an introductory geothermal field lesson, we characterize the content and perceptions of students' note-taking skills to derive the strategies that students use in the field. We collected several data sets: observations of the field lesson, hard-copy notebooks ($n = 42$), and interview data ($n = 16$). Our analysis of the notebooks revealed note-taking strategies on two dimensions, consistent with earlier findings in the literature: students' ability to write in their own words (uniqueness; U), and the amount of necessary information recorded (completeness; C). We propose several factors that influenced the students' notes: lecturer differences, previous field experience, and gender. Two different lecturers (1 and 2) taught the lesson on two different days. The note-taking task covered similar content but was not scripted, resulting in lecturer differences. Lecturer 1 included rich peripheral information, and the other reiterated the need "to think for yourself" and "focus on observations" (resulting in higher U scores for lecturer 2's students). We also found that students with "high" previous field experience had higher U scores. Interview data corroborated this finding, indicating that field experience helped students to "know what to look for." Lastly, female students generally achieved higher C scores than male students. Females used more words (verbosity), and this likely led to higher values achieved. To improve note-taking skills, we suggest breaking down complex field lessons into simple, manageable parts to manage students' cognitive load. © 2015 National Association of Geoscience Teachers. [DOI: 10.5408/13-026.1]

Key words: field teaching, note-taking, geothermal geology, cognitive load theory, student perceptions

Exploring the Interrelationships of Art and Geology through a Course Module on European Ice Age Cave Art

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Geology for Art Students



Figure 1. *Young Ladies from the Village* (1859) by Gustave Courbet. Oil on canvas. (195 x 261 cm.) This realistic landscape depicts an area in the Jura Mountains of France where Courbet grew up. The limestone outcrops in the background are the type locality for the Jurassic period. The Metropolitan Museum of Art, Gift of Harry Payne Bingham, 1940. (40.175).



Figure 2. *The Mountain* (1937) by Balthus. Oil on canvas. (249 x 366 cm.) This modern depiction of the Jura Mountains is considered to be Balthus's answer to Courbet's painting in Figure 1. The Metropolitan Museum of Art, Purchase, Gifts of Mr. and Mrs. Nate B. Spingold and Nathan Cummings, Rogers Fund and The Alfred N. Punnett Endowment Fund, by exchange, and Harris Dick Fund, 1982. (1982.530).

class in illustration. Rock classification is developed by constructing a "nonsite," loosely in the sense of Robert Smithsonian. Rock specimens are placed into wooden containers according to type, that is, igneous, metamorphic, or sedimentary, and

analogies are drawn with Smithsonian's *A Nonsite, Franklin, New Jersey, 1968*, which focused on the famous Franklin mineral locality. Smithsonian himself had a personal connection to minerals in that he was a descendant of Charles Smithsonian,

the discoverer of the mineral smithsonite (zinc carbonate) and an important figure in the founding of the Smithsonian Institution (Hobbs, 1981).

Topographic maps are studied by making three-dimensional renderings of Christo's projects in Colorado, *Valley Curtain* (1972) (Vaizey, 1990) and *Over the River* (in preparation). The students construct cross sections from topographic maps covering Christo's areas, and then make three-dimensional renderings of the landscape. Christo and his collaborator Jeanne-Claude described their new Colorado project at RMCAD in the Spring of 1998, greatly bolstering student interest in landforms. More ambitious projects can be carried out in conjunction with other art classes. One RMCAD exercise that provides a model for this type of project was the creation of a ceramic sculpture depicting the Bryce Canyon National Park landscape (Figure 3).

Field Trips

Field trips may be the easiest venue for combining art and geology. Just as the Impressionists did a century ago, we take our sketchbooks, paints, pastels, and pencils to the field. We travel to Red Rocks Park, the site of a spectacular, tilted red sandstone formation in the foothills of the Rocky Mountains near Denver. As I explain the succession of events leading to the formation of the Rocky Mountains, the students sketch the site knowing that these illustrations will be part of their field-trip report. A second field trip takes us to the National Center for Atmospheric Research (NCAR) in Boulder, Colorado to view exhibits illustrative of global-climate-change topics. NCAR is housed in a building designed by the well known architect I.M. Pei. Pei was inspired by Native American dwellings that he had seen in southwestern Colorado at Mesa Verde, and he tried to design the NCAR building so that it would integrate with the flatiron sandstone landscape. Special care was taken in choosing the color and texture of the concrete facing of the building so that it would match the red sandstone backdrop. Here

Vishnu Schist

Stele of Vishnu and attendants, 10th–11th century
India, Pala empire, 8th–12th century

Black schist

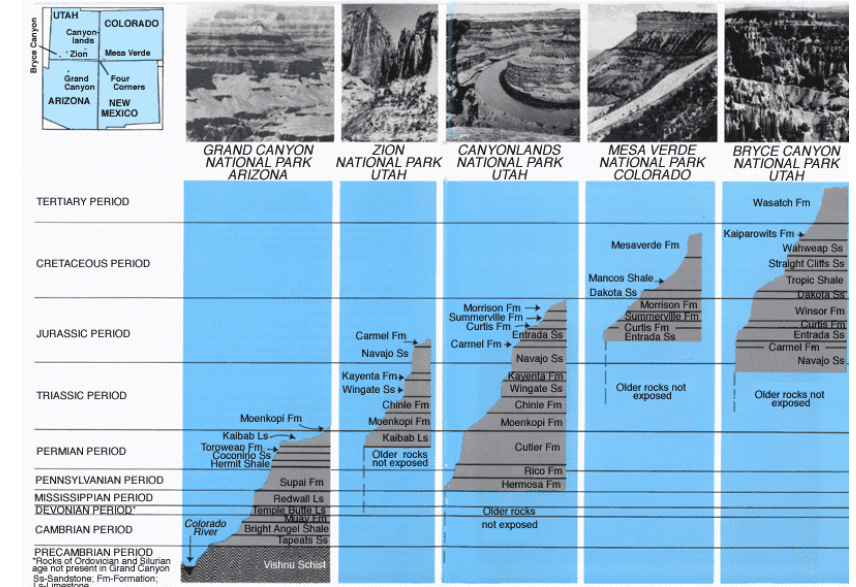
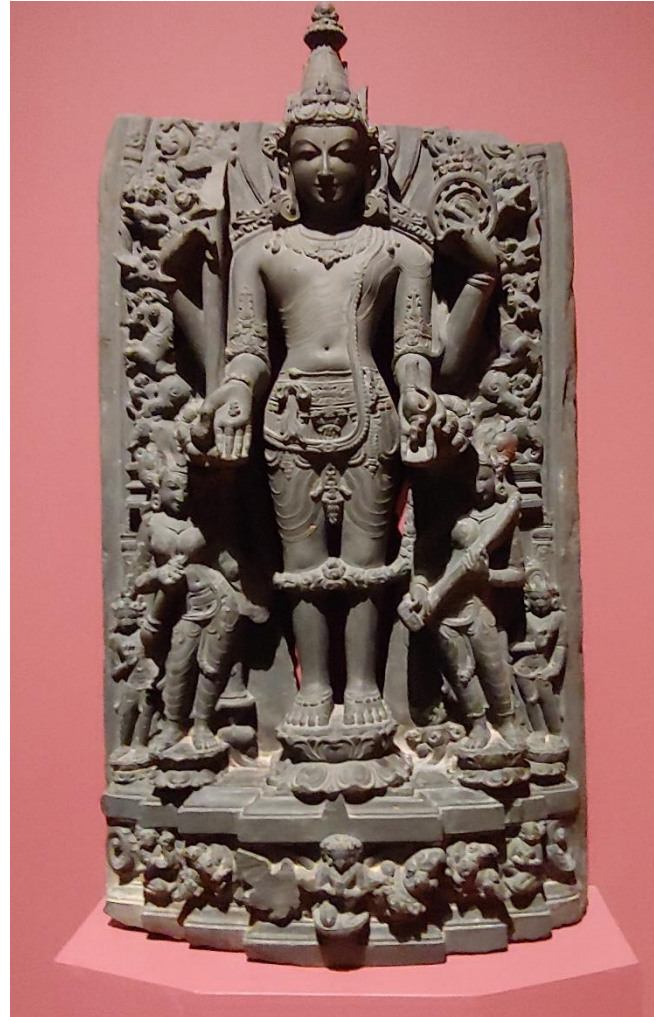
Regarded as the Preserver of the Universe, Vishnu is one of the most important gods in the Hindu pantheon. He is known in twenty-four forms and here appears in the form of a giant called Trivikrama. The god is accompanied by various animals as well as four female deities in sinuous poses. In the center of the symmetrical and hierarchical composition, Vishnu holds four attributes in his four hands: a now broken club (*gada*) representing his power in his upper right hand; a lotus (*padma*) that alludes to rebirth in his lower right; a wheel (*cakra*) for enlightenment in his upper left; and a conch (*sankha*) representing life-giving water in his lower left.

Museum purchase, John Maclean Magie, Class of 1892, and Gertrude Magie Fund
1961-47

<https://artmuseum.princeton.edu/collections/objects/28869>

Vishnu made of Schist

Vishnu Schist

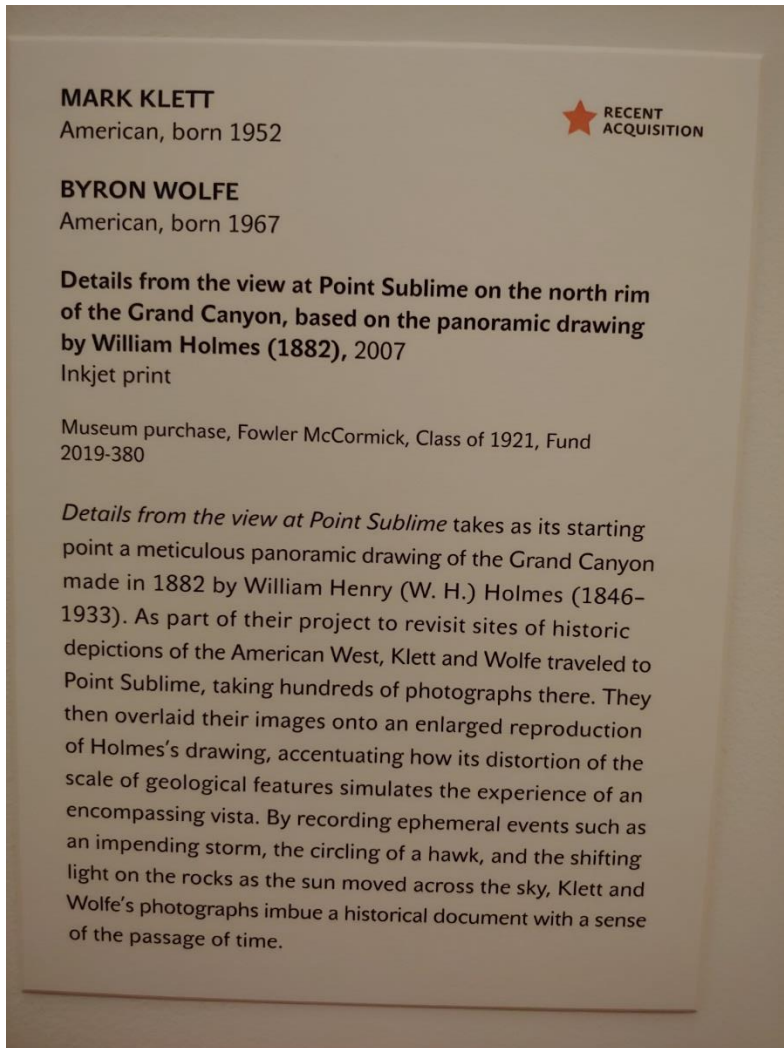




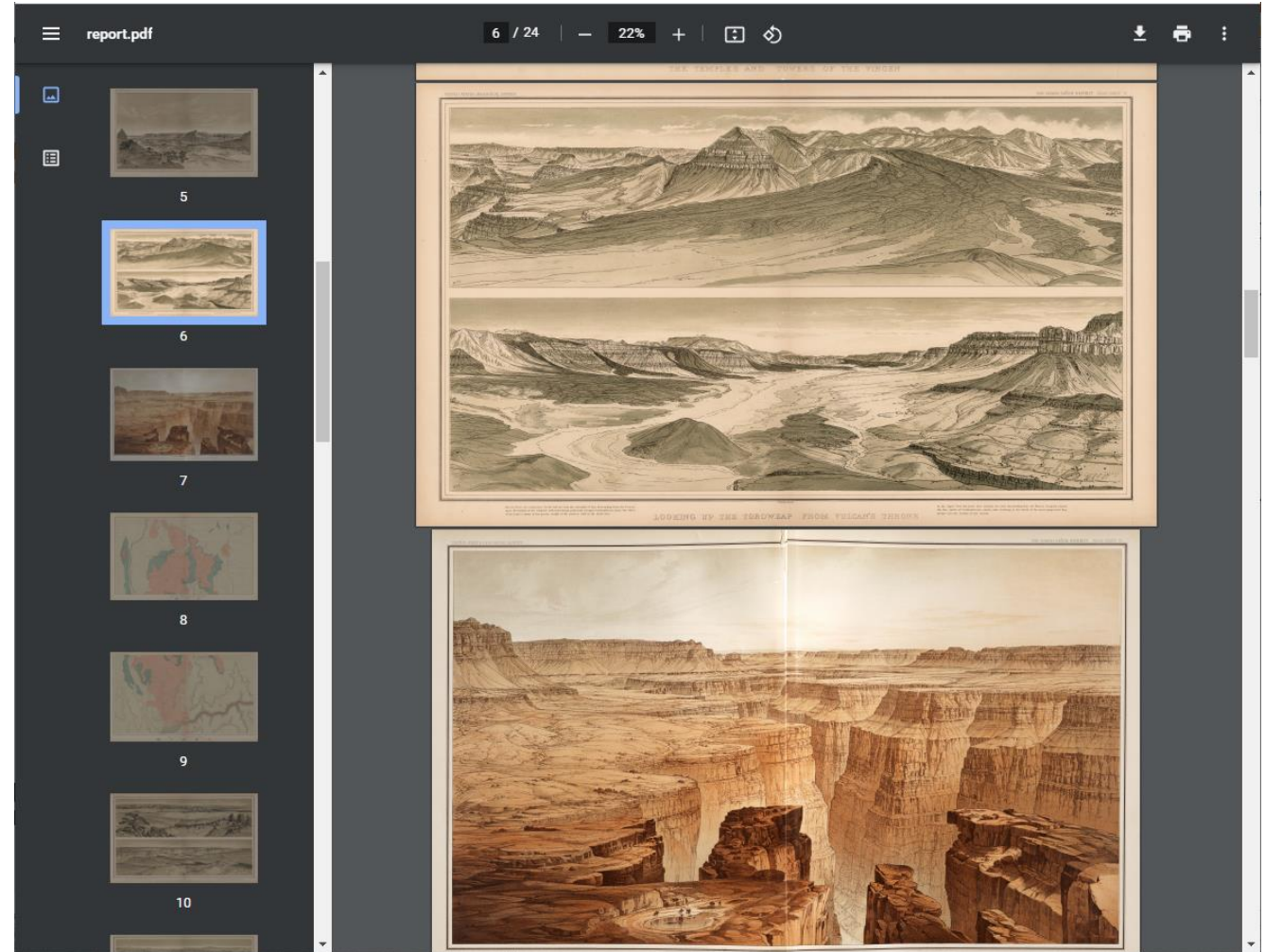
https://pubs.er.usgs.gov/publication/m2_1882

U.S. Geological Survey Monographs:

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<https://www.klettandwolfe.com/2009/10/p-anorama-from-point-sublime.html>



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Journal of Raman spectroscopy
Vol. 48, No. 10, 2017, pp.1289 -1299

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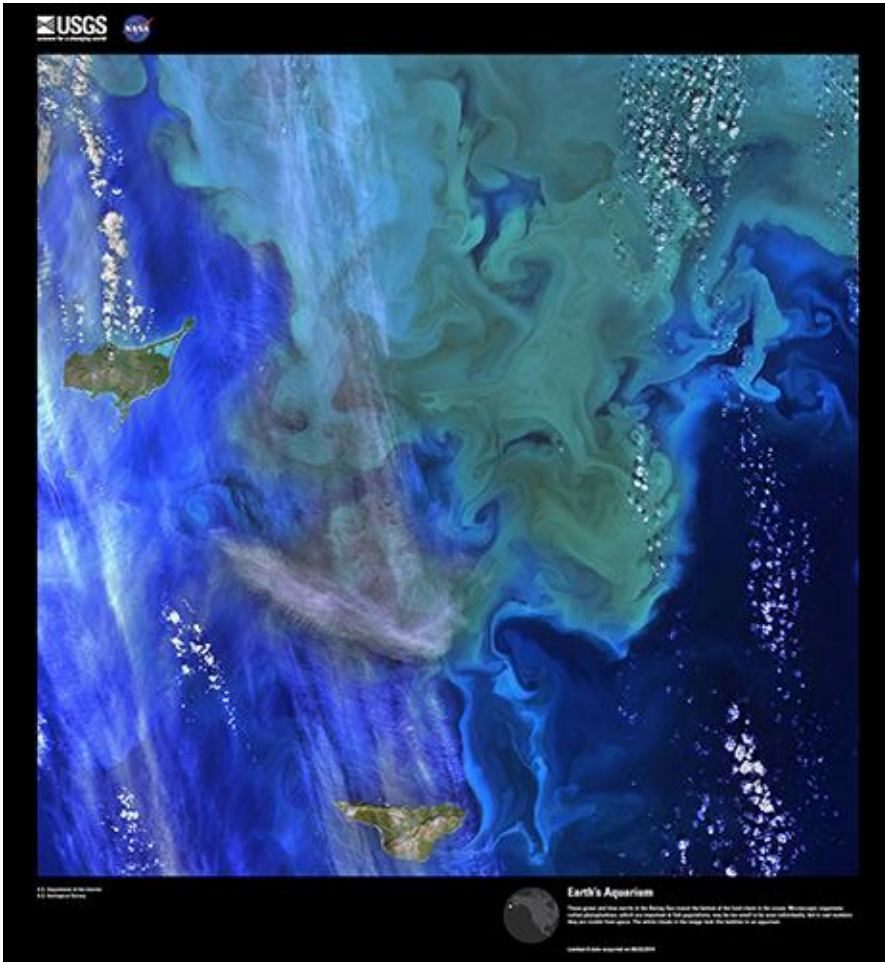
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Earth's Aquarium

September 22, 2014

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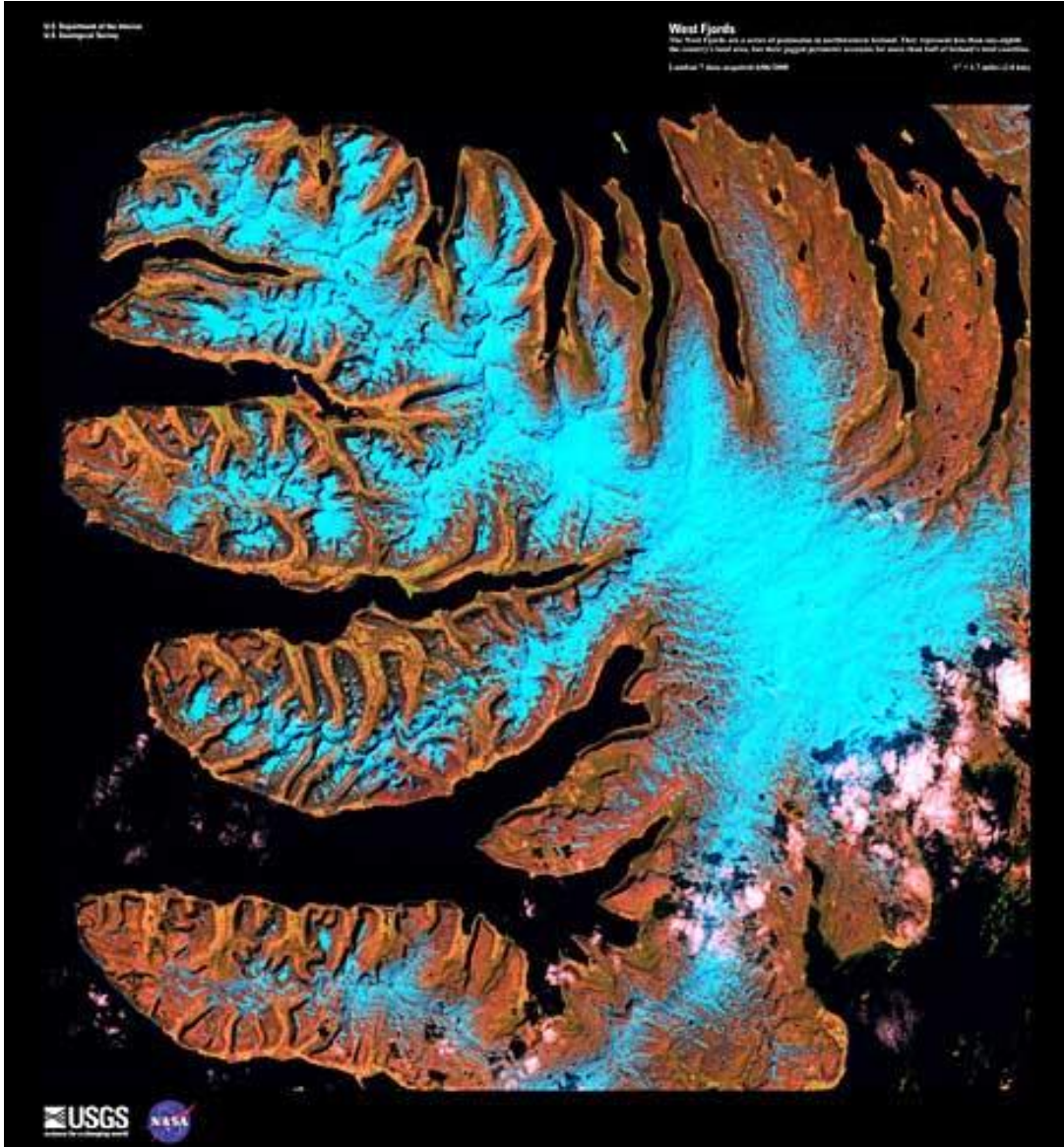
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Climate Science

The ocean and the atmosphere interacts with life to set the physical and chemical conditions of Earth's surface. At Princeton, we use multi-scale models of varying complexity and observations to study the climate system, including stratosphere-troposphere interactions, the coevolution of atmospheric pCO₂, ice volume and sea level, decadal to millennial oscillators in the climate system, ocean tracers as a means to understand the cycling of climatically important molecules and the importance of ocean circulation and biology in regulating climate.



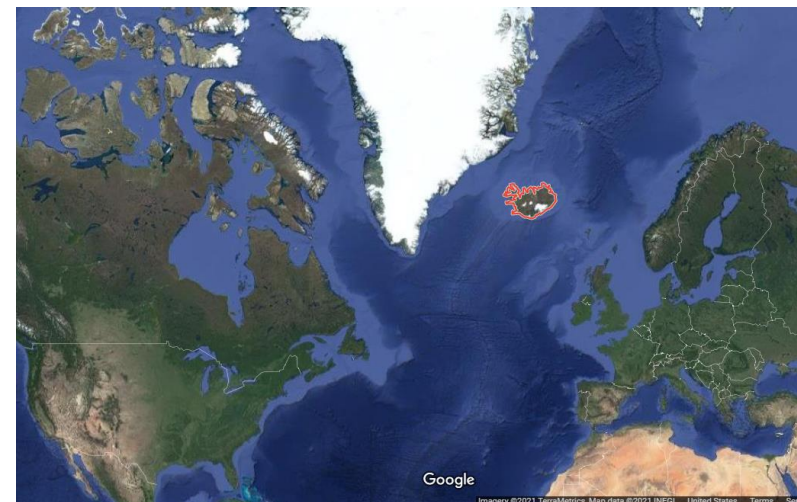
West Fjords

June 1, 2000

<https://eros.usgs.gov/image-gallery/earth-as-art-1/west-fjords>

The West Fjords are a series of peninsulas in northwestern Iceland. They represent less than one-eighth the country's land area, but their jagged perimeter accounts for more than half of Iceland's total coastline.

Sources: Landsat 7





Icelandic Tiger

October 21, 1999

<https://eros.usgs.gov/image-gallery/earth-as-art-3/icelandic-tiger>

This stretch of Iceland's northern coast resembles a tiger's head complete with stripes of orange, black, and white. The tiger's mouth is the great Eyjafjorour, a deep fjord that juts into the mainland between steep mountains. The name means "island fjord," derived from the tiny, tear-shaped Hrisey Island near its mouth. The ice-free port city of Akureyri lies near the fjord's narrow tip, and is Iceland's second largest population center after the capital, Reykjavik.

Sources: Landsat 7



Terkezi Oasis

October 1, 2000

<https://eros.usgs.gov/image-gallery/earth-as-art-1/terkezi-oasis>

A series of rocky outcroppings are a prominent feature of this Sahara Desert landscape near the Terkezi Oasis in the country of Chad.

Sources: Landsat 7



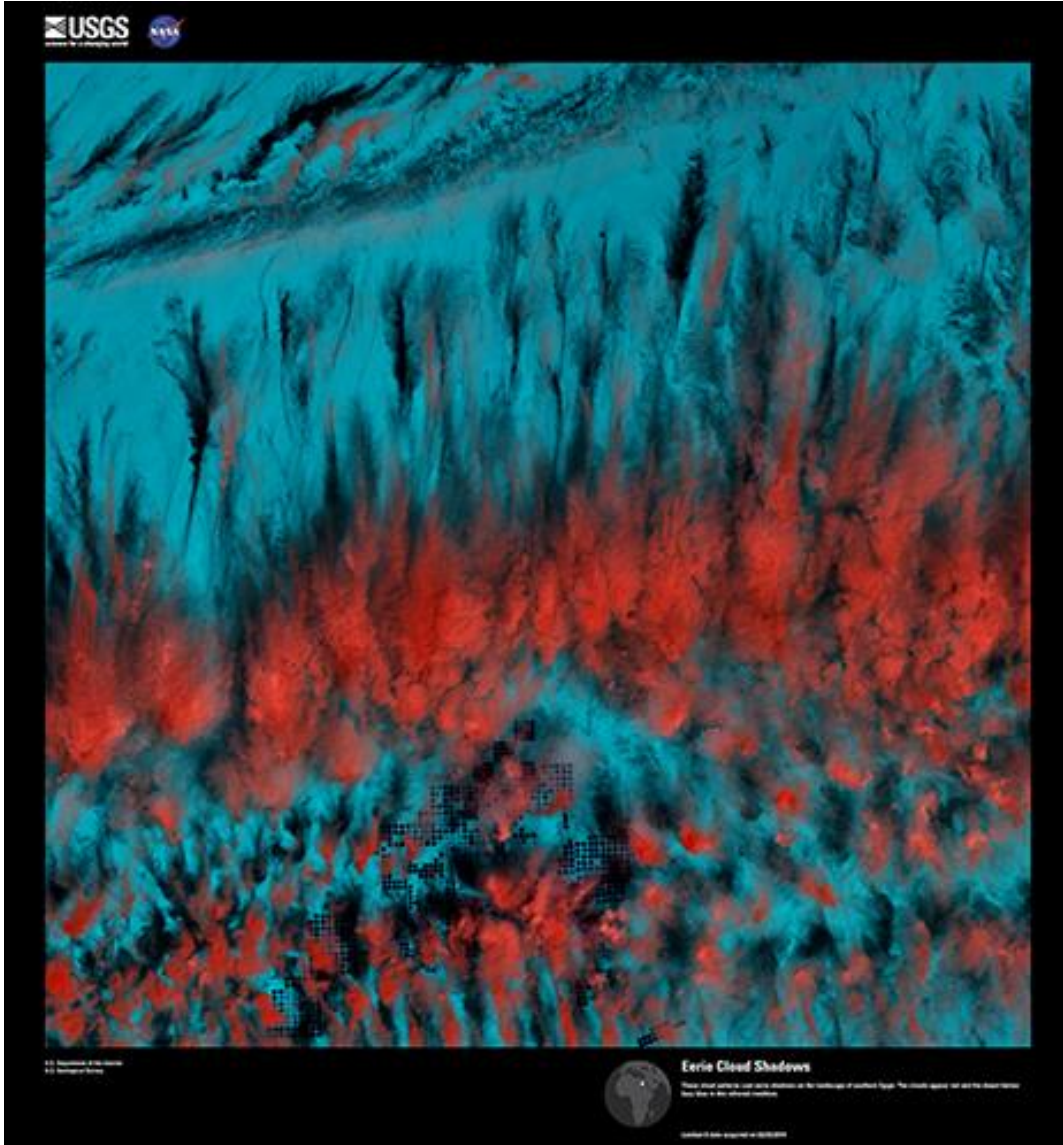
Eerie Cloud Shadows

March 22, 2014

<https://eros.usgs.gov/image-gallery/earth-as-art-4/eerie-cloud-shadows>

These cloud patterns cast eerie shadows on the landscape of southern Egypt. The clouds appear red and the desert below hazy blue in this infrared rendition.

Sources: Landsat 8



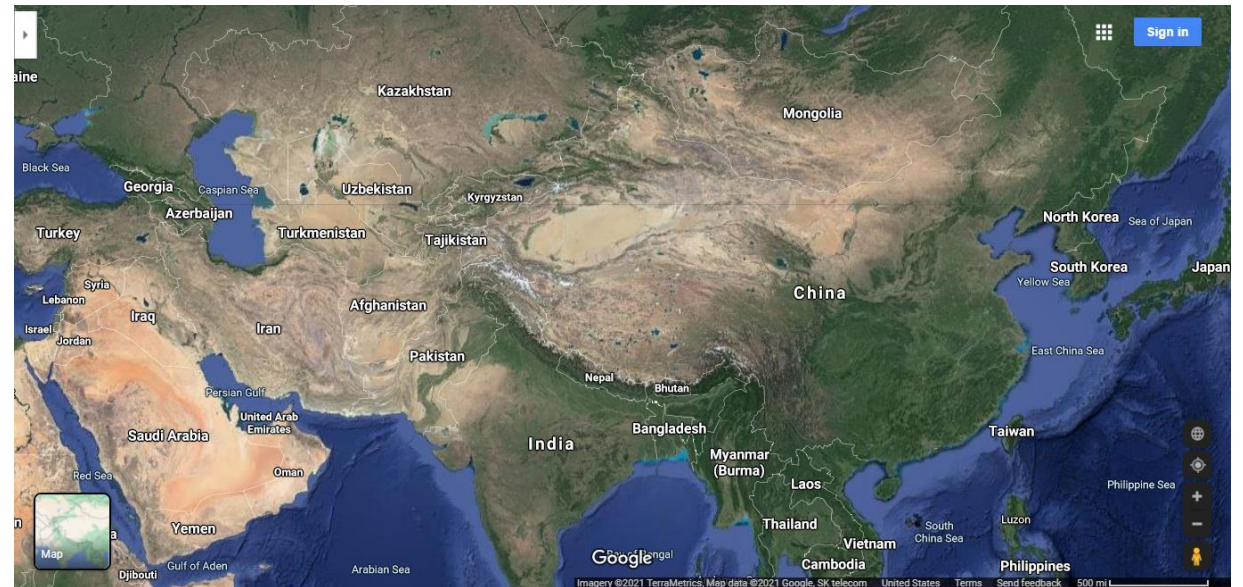


Faults

July 30, 2013

When landmasses collide, rock layers can break. Geologists call these breaks "faults." Rock layers are offset in this image in western China, making the faults remarkably clear. The different colors indicate rocks that formed at different times and in different environments.

Sources: Landsat 8



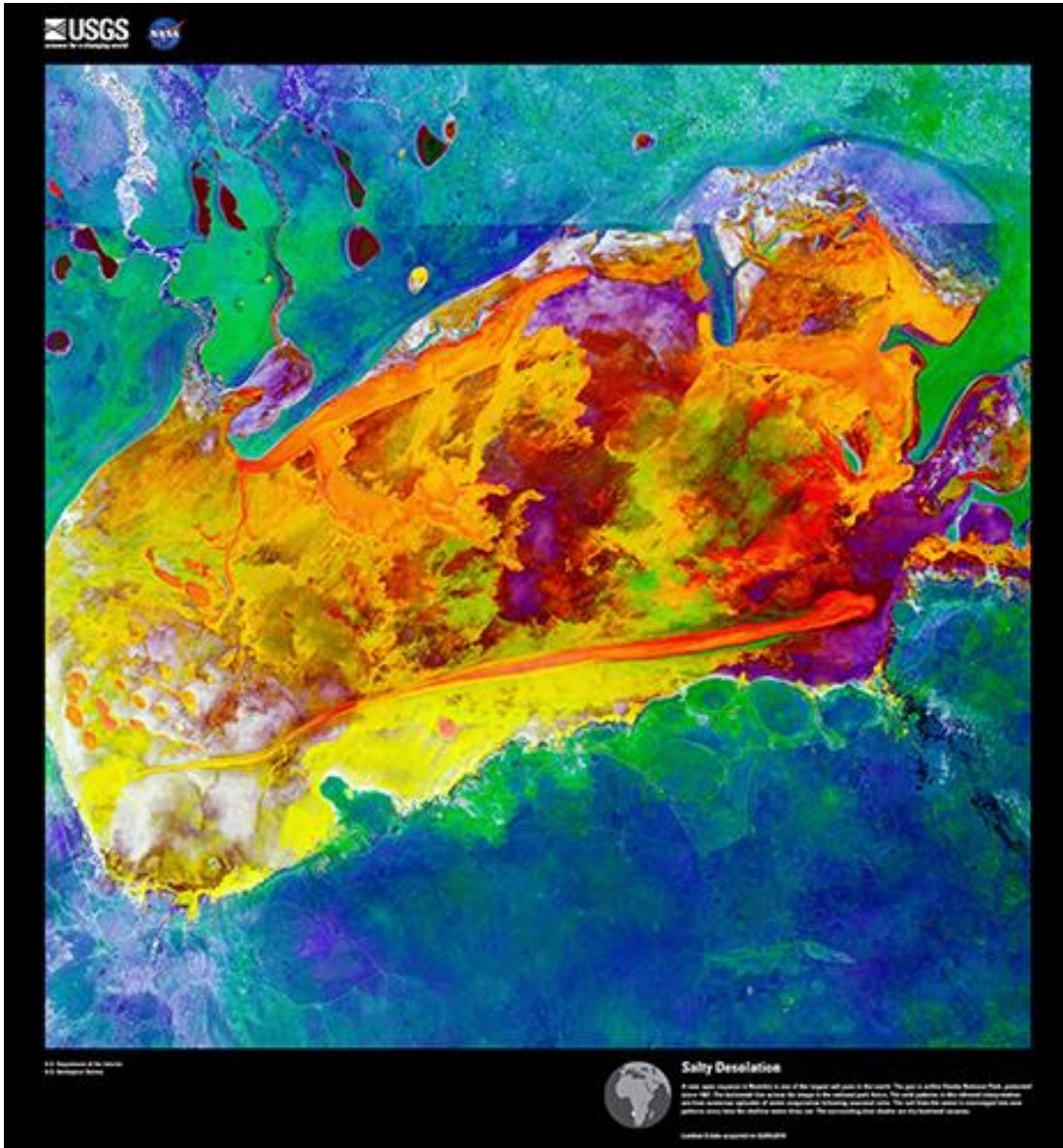
Salty Desolation

March 4, 2014

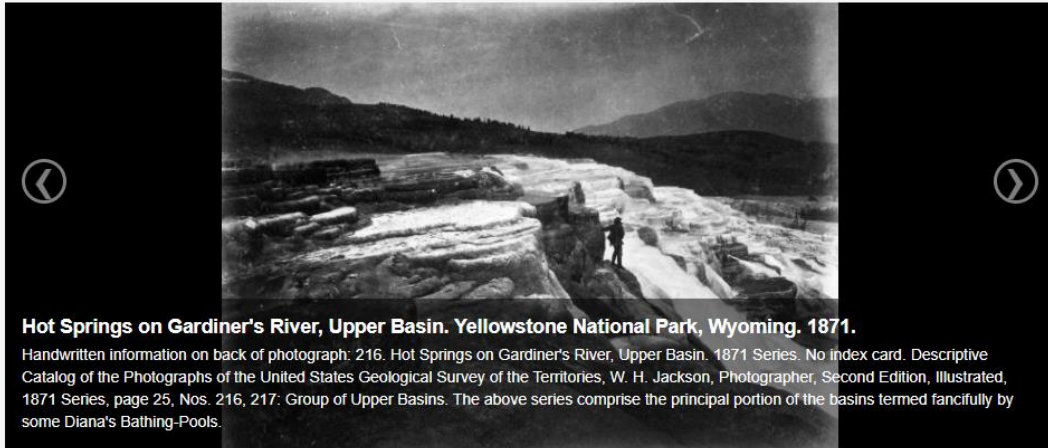
<https://eros.usgs.gov/image-gallery/earth-as-art-6/salty-desolation>

A vast, open expanse in Namibia is one of the largest salt pans in the world. The pan is within Etosha National Park, protected since 1907. The horizontal line across the image is the national park fence. The wild patterns in this infrared interpretation are from numerous episodes of water evaporation following seasonal rains. The salt from the water is rearranged into new patterns every time the shallow water dries out. The surrounding blue shades are dry bushland savanna.

Sources: Landsat 8



USGS Denver Library Photographic Collection



Hot Springs on Gardiner's River, Upper Basin. Yellowstone National Park, Wyoming. 1871.

Handwritten information on back of photograph: 216. Hot Springs on Gardiner's River, Upper Basin. 1871 Series. No index card. Descriptive Catalog of the Photographs of the United States Geological Survey of the Territories, W. H. Jackson, Photographer, Second Edition, Illustrated, 1871 Series, page 25, Nos. 216, 217: Group of Upper Basins. The above series comprise the principal portion of the basins termed fancifully by some Diana's Bathing-Pools.

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The Second Cañon at water's edge. Thomas Moran seated on rocks. Yellowstone National Park, Wyoming. 1871.



Handwritten notes on back of photograph: W.H. Jackson 208. Thomas Moran seated at water's edge (12/15/1970 by Nell Carico, USGS). The Second Cañon. Plate 75 View of the Yellowstone, 1871. In USGS album First Canon to Yellowstone Lake. No. 208 missing from USGS albums in the National Archives. See stereo 421, 422, 423 (1871). No index card. Descriptive Catalog of the Photographs of the United States Geological Survey of the Territories, W. H. Jackson, Photographer, Second Edition, Illustrated, 1871 Series, page 24, No. 208: The Second Cañon at the water's edge. On one side rise abrupt perpendicular walls of gneiss, and on the opposite side, less abrupt, are scattered a few cottonwoods among the mass of rocky debris affording pleasant [...]

Small Image Medium Image Large Image Full Image

William Henry Jackson

<https://library.usgs.gov/photo/#/?collection1=jackson,%20w.h.%20collection>



Caption: Council Bluffs from Trainville Point, South Omaha, and crossing of Rail Road Bridge over the Missouri. Nebraska, 1869.

In 1869, Henry Wood Elliott was invited to join Ferdinand V. Hayden's United States Geological Survey of Colorado and New Mexico as the artist. The sketches are pencil, pen and ink, and watercolor, but are mostly black and white, except for no. 6 ct, 82050006 on Photos website.

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USGS Copper Plates

Copper Plates Gone (Sort of)

<https://www.usgs.gov/news/copper-plates-gone-sort>



Castle Rock, Colorado ; Copper Plates (Blue, Brown, Black, Black) and Printed Topo Map



Vintage copper engravings of the greater St. Louis, Missouri area

The highest successful bid was for \$18,938 - Nantucket, Massachusetts;

The average successful bid was \$489;

The lowest successful bid was \$70 (the minimum set by GSA).

Based on the successful bids for sets sold to the public, the value of the engravings was more than \$2.1 million, including:

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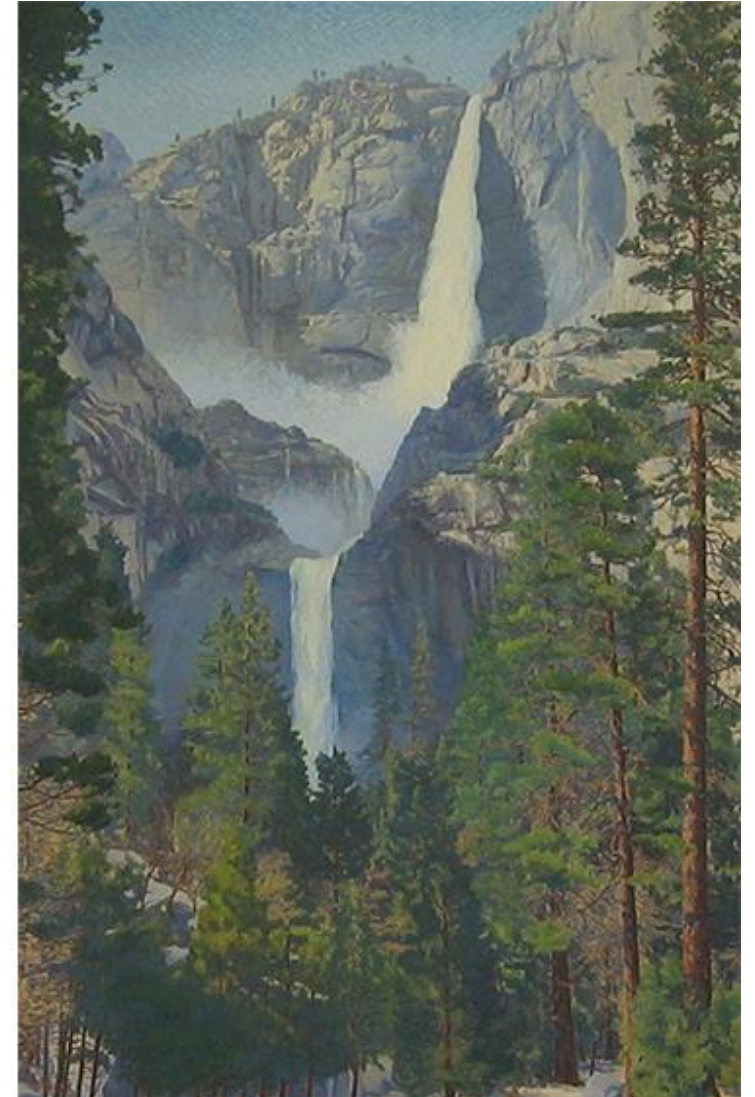
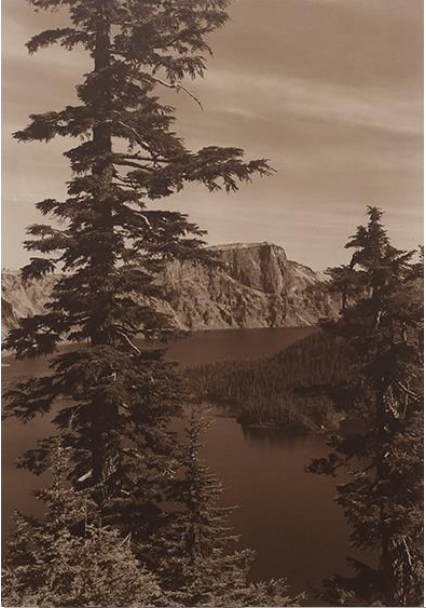
Public sale: \$1,106,563 million (total of the successful bids). All of that money went to the U.S. Treasury

Other high dollar sets included:

- 1) Los Angeles and Ventura Counties - \$11,050
- 2) Martha's Vineyard, Massachusetts - \$9,800
- 3) Sierra Nevada, California - \$7,700
- 4) Santa Monica Mountains, California (geologic map) - \$5,100

Awash in Color: The Interior Museum's Hand-tinted Photographs

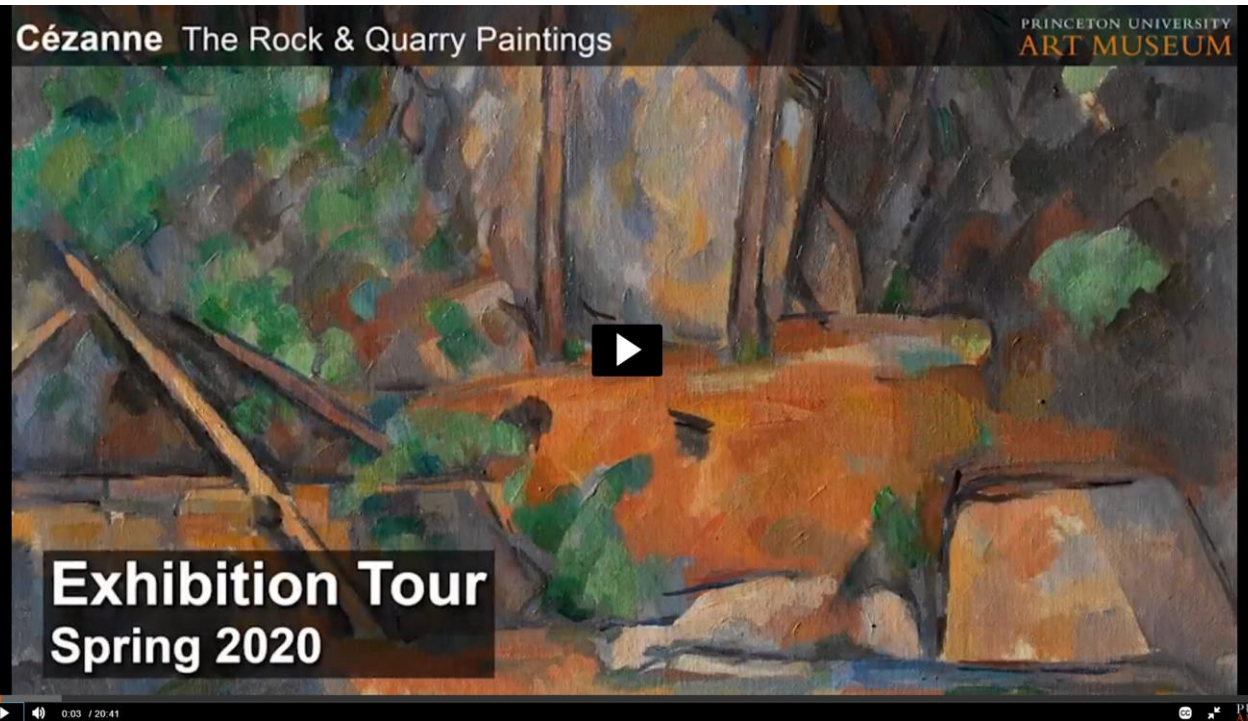
<https://www.doi.gov/interiormuseum/awash-color-interior-museums-hand-tinted-photographs>



Cézanne: The Rock and Quarry Paintings

<https://artmuseum.princeton.edu/art/exhibitions/3447>

<https://artmuseum.princeton.edu/files/non-collections/cezannerq.pdf>



Organized by the Princeton University Art Museum, *Cézanne: The Rock and Quarry Paintings* will premiere in Princeton before traveling to the Royal Academy of Arts, London.



<https://www.wikiart.org/en/paul-cezanne/rocks-at-l-estaque>

Nature's Nation: American Art and Environment

<https://artmuseum.princeton.edu/art/exhibitions/2818>

http://artimage.princeton.edu/files/ProductionJpegs/NN_checklist_web.pdf



<https://learn.ncartmuseum.org/artwork/bridal-veil-falls-yosemite-2/>



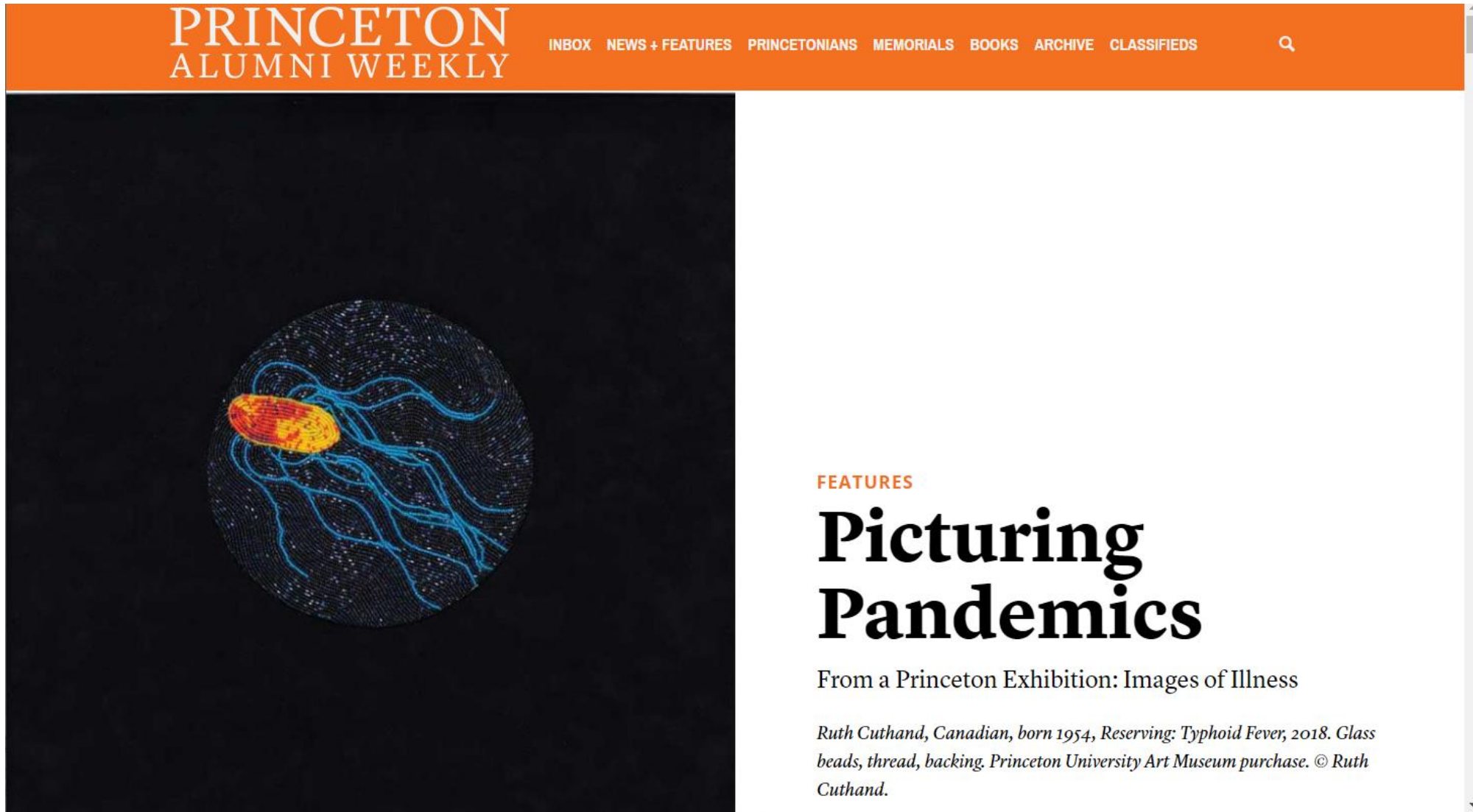
<https://americanart.si.edu/artwork/burning-oil-well-night-near-rouseville-pennsylvania-9887>



<https://artmuseum.princeton.edu/story/fitz-henry-lane%E2%80%99s-ship-fog-gloucester-harbor>

Picturing Pandemics:

<https://paw.princeton.edu/article/picturing-pandemics>



The screenshot shows the top of a web page with an orange header. On the left, the text 'PRINCETON ALUMNI WEEKLY' is displayed in white. To the right of this, a navigation menu includes 'INBOX', 'NEWS + FEATURES', 'PRINCETONIANS', 'MEMORIALS', 'BOOKS', 'ARCHIVE', and 'CLASSIFIEDS'. A search icon is located on the far right of the header. Below the header, the main content area is split. On the left is a large, dark image of a circular artwork. On the right, the word 'FEATURES' is written in orange, followed by the title 'Picturing Pandemics' in a large, bold, black serif font. Below the title, the text 'From a Princeton Exhibition: Images of Illness' is centered. At the bottom of the article preview, a caption reads: 'Ruth Cuthand, Canadian, born 1954, Reserving: Typhoid Fever, 2018. Glass beads, thread, backing. Princeton University Art Museum purchase. © Ruth Cuthand.'

PRINCETON
ALUMNI WEEKLY

INBOX NEWS + FEATURES PRINCETONIANS MEMORIALS BOOKS ARCHIVE CLASSIFIEDS



FEATURES

Picturing Pandemics

From a Princeton Exhibition: Images of Illness

Ruth Cuthand, Canadian, born 1954, Reserving: Typhoid Fever, 2018. Glass beads, thread, backing. Princeton University Art Museum purchase. © Ruth Cuthand.

<https://www.loc.gov/collections/>

<https://memory.loc.gov/ammem/index.html>

Documentary Chronology of Selected Events in the Development of the American Conservation Movement, 1847-1920

<https://memory.loc.gov/ammem/amrvhtml/conshome.html>

<https://memory.loc.gov/ammem/amrvhtml/cnchron1.html>



THE HARVEST NOON.



The Grand Canyon, Yellowstone / TM ; Prang's American Chromo. c1875.

Instrumentation Analysis Resources

<https://www.loc.gov/preservation/scientists/instrumentation/index.html>

Digital Microscopy and Imaging

Qualitative and quantitative study of materials — The color, morphology, and other optical properties of collection materials (and of the media contained on them) provide information about their identity, the impact of environmental factors on their longevity, and the effects of conservation treatments on their integrity. Digital documentation of the images is essential for the evaluation of materials over generations of preservation activities.

- [Environmental Scanning Electron Microscopy](#)
- [Hyperspectral Imaging](#)
- [Compound Digital Microscopy](#)
- [Stereo Digital Microscopy and Image Analysis](#)
- [Image Analysis Workstation](#)

Elemental Spectroscopy

Spectroscopic determination of inorganic elements in a variety of collection and housing materials — The elements studied include most of the periodic table; metals and nonmetals that are important both from a fundamental formulation perspective, as well as for their catalytic (and sometimes buffering) role in degradation.

- [Energy-Dispersive X-Ray Spectroscopy](#)
- [Inductively Coupled Plasma — Optical Emission Spectrometry with Laser Ablation](#)
- [Portable X-Ray Fluorescence Spectrometry](#)

<https://www.usgs.gov/usgs-laboratories><https://www.usgs.gov/labs/spec-lab>

The screenshot shows the USGS Spectroscopy Lab website. The header includes the USGS logo and navigation links for SCIENCE, PRODUCTS, NEWS, CONNECT, and ABOUT. A search bar is also present. The main content area features a large hyperspectral image of a landscape, with a color-coded legend below it. The legend is titled "EXPLANATION" and lists material class names with corresponding color swatches: Muscovite/montmorillonite (light blue), Kaolinite+muscovite (dark blue), Muscovite/illite (orange), Gypsum (purple), Chlorite+muscovite (pink), Chlorite (red), Vegetation (tan), and Not classified (black). A scale bar indicates 60 METERS. The footer includes a "HOME" button and a description of the lab's research.

Analytical Projects

<https://www.loc.gov/preservation/scientists/analytical/index.html>

Verin Noravank Gospels: Technical Study of Pigments, Inks and Coatings

<https://www.loc.gov/preservation/scientists/analytical/noravank.html>



The Forbes Pigment Reference Collection: Characterization Using Scanning Electron Microscopy (SEM) and X-ray Fluorescence (XRF)

https://www.loc.gov/preservation/scientists/projects/pigment_ref_coll.html



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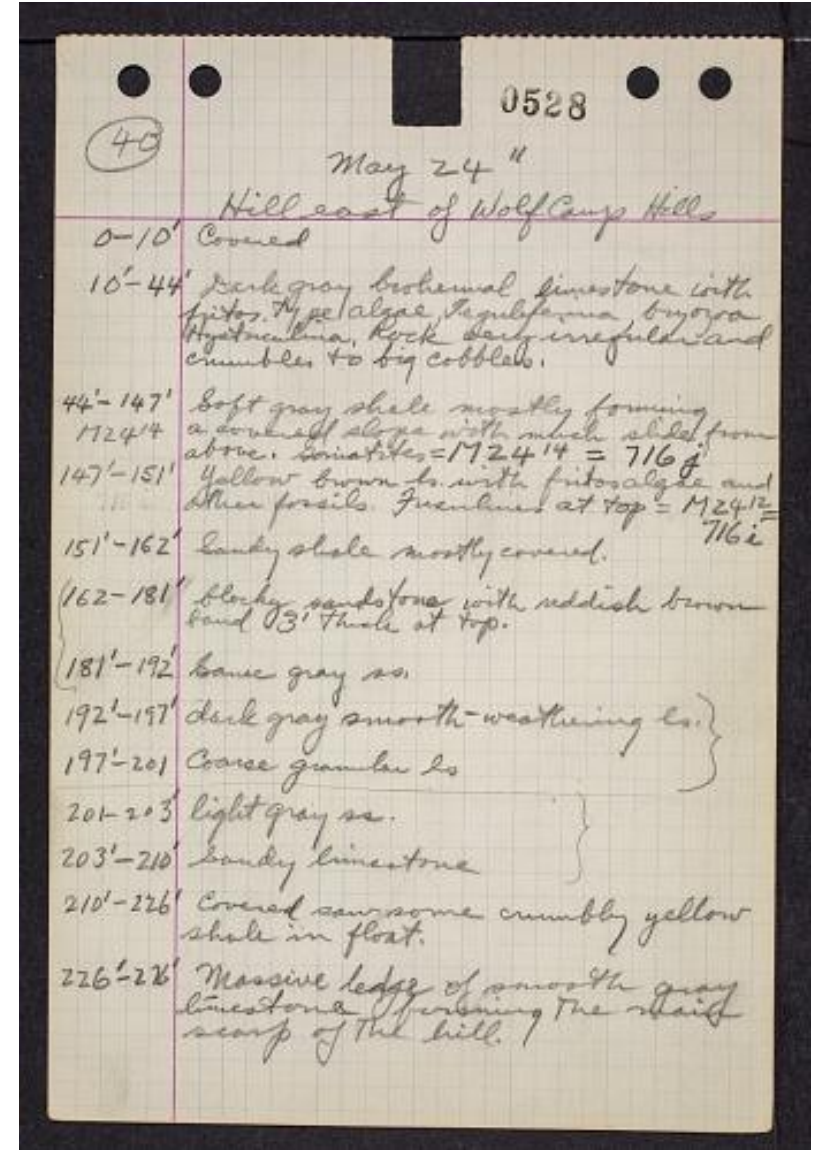
Field notes, 1968



Field notes, circa 1956



Field notes and maps from Glass Mountains, West Texas, 1958



<https://siarchives.si.edu/collections/fbr item modsi2069-0>

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Search the Department of Mineral Sciences Collections

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Mineral Sciences Collections Search

If you don't know what you want to see, you may want to try the choices in the Quick Browse section below.

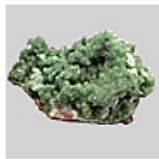
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Please note: we have electronic records for more than 90% of our collections, but images for less than 10%. We constantly add new data and correct records. If searches do not return expected data users are welcome to use the Feedback form or **contact** Department of Mineral Sciences collection managers.

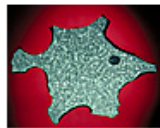
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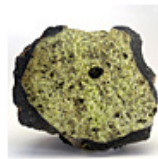
Quick Browse Searches



Gems & Minerals with images

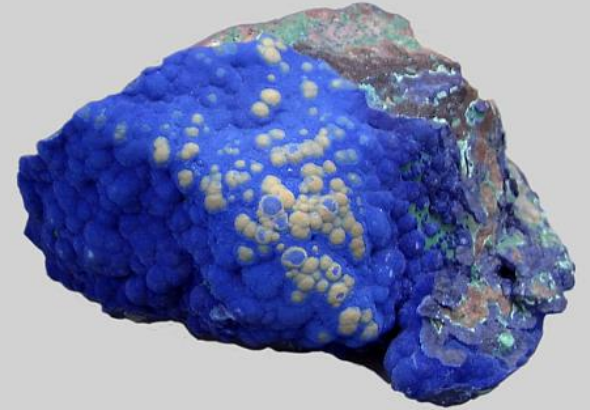


Meteorites with images



Petrology & Volcanology with images

NMNH Data Access Policy



131897 - Azurite



Mineralogy: Azurite

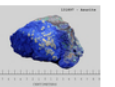
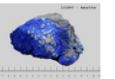
Catalog Number:	131897 00		
Specimen Count:	1		
Identification List:	Taxon	Qualifier	Part
	Azurite		Primary Mineral
	Malachite		Associated Mineral
			Id By
			Texture/Structure
			Color

Country: United States
Province/State: Arizona
District/County: Greenlee Co.
Precise Locality: Morenci
Latitude: 33.075
Longitude: -109.365
Radius: 10 km

Notes: Matched to the GeoNames record for Morenci, Greenlee Co., Arizona, United States (<http://geonames.org/5305503>) based on feature name, district/county, state/province, and country using the `situatue.py` script. This was the most specific match possible based on information available in this record. Bounding box coordinates were rounded to 2 decimal places from the values given by GeoNames. An arbitrary error radius of 10 km was assigned to all `featureCode=PPL` records matched using the script.

Other Numbers: Type Value
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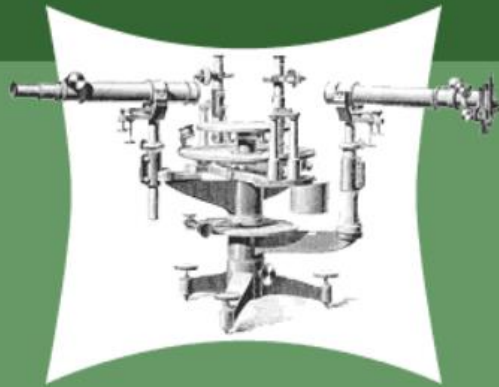
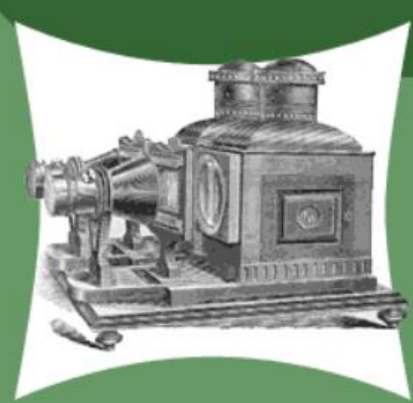
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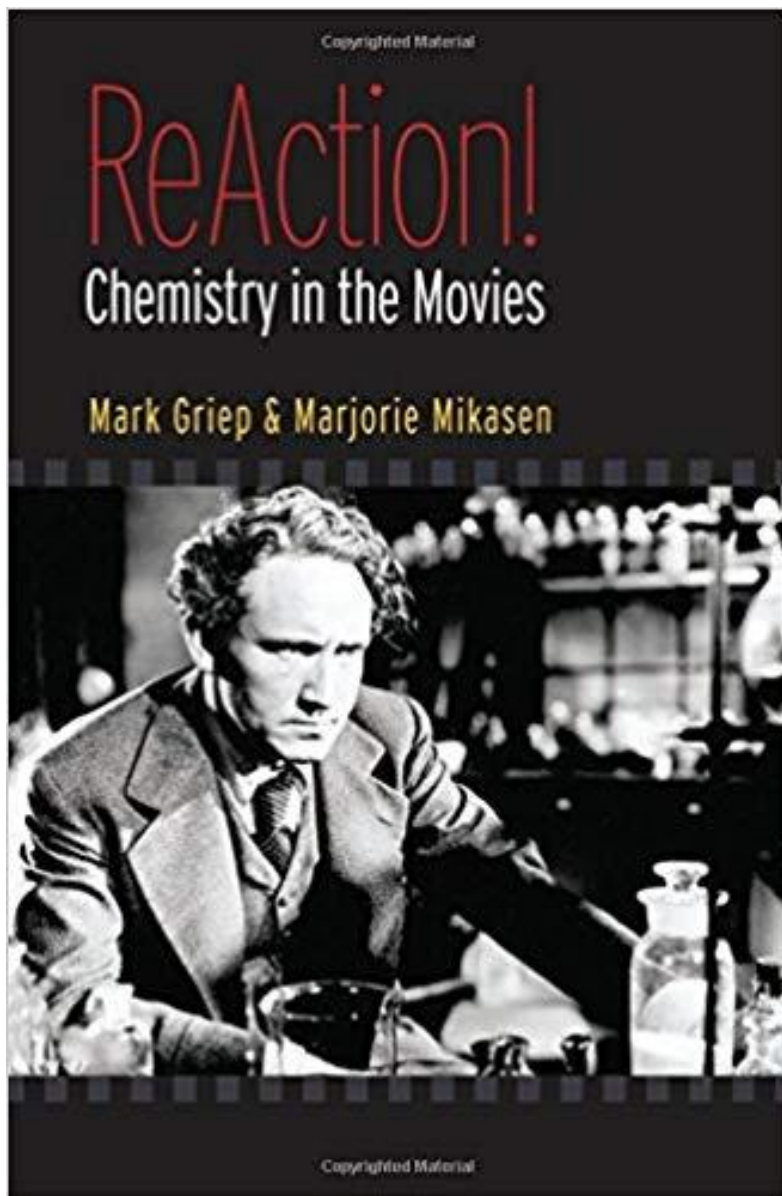
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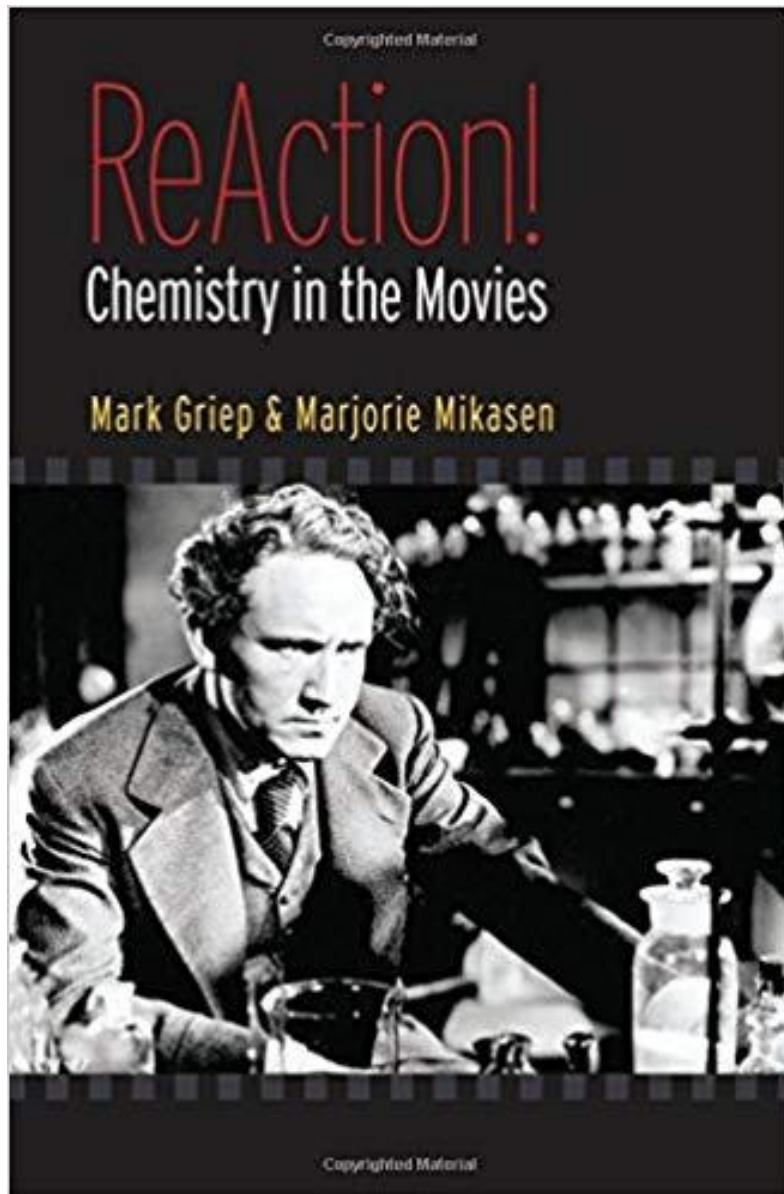
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ReAction! Chemistry in the Movies

Table 2.1. Chemical invisibility in the movies

Title (Year)	Invisibility or Reversion Agent
<i>Hollow Man</i> (2000)	Caine-126
<i>Now You See Him, Now You Don't</i> (1972)	Paint
<i>Invisible Agent</i> (1942)	[Monocaine]
<i>Invisible Woman</i> (1940)	Formula and ray
<i>The Invisible Man Returns</i> (1940)	Duocaine
<i>The Invisible Man</i> (1933)	Monocaine
<i>The Invisible Thief</i> (1909)	Unnamed

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ReAction! Chemistry in the Movies

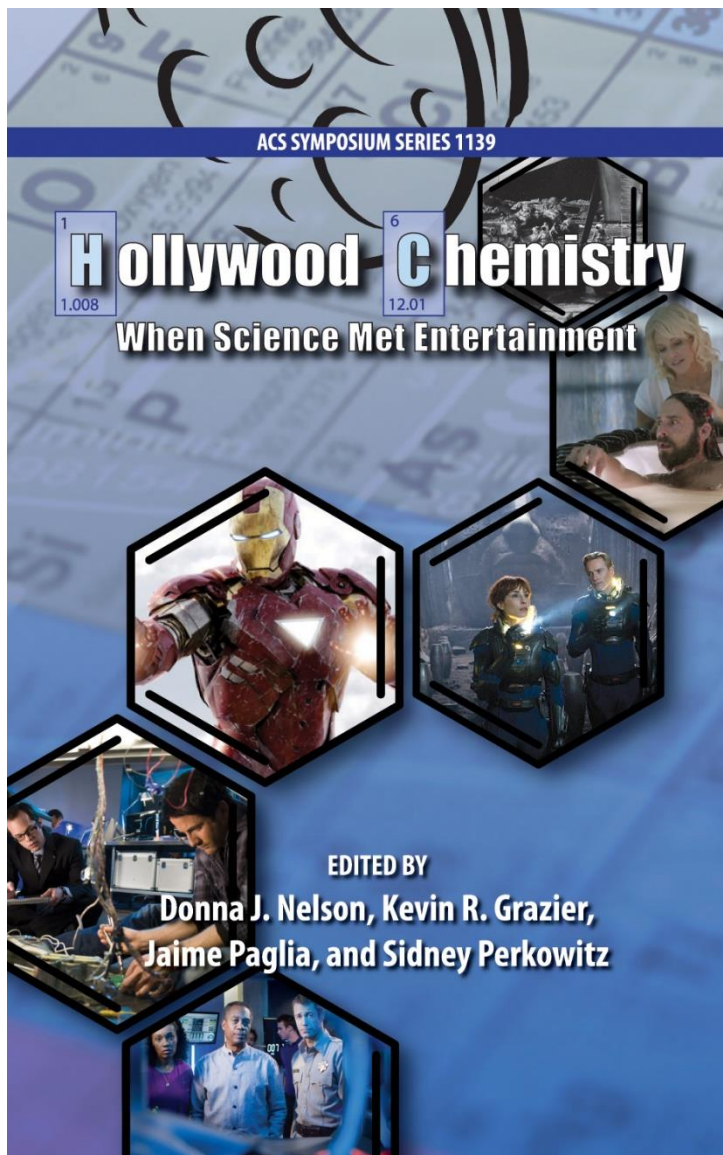
Table 11.1. Archetypal chemistry in the movies

Chapter and Title (Year)	Chemical Theme
1. <i>Dr. Jekyll and Mr. Hyde</i> (1931)	Chirality and mirrors
2. <i>The Invisible Man</i> (1933)	Cocaine local anesthesia
3. <i>The Testament of Dr. Mabuse</i> (1933)	Nerve gas
3. <i>Dr. Strangelove</i> (1964)	Fluoridation paranoia
4. <i>One Man</i> (1977)	Lead poisoning
5. <i>The Trip</i> (1967)	LSD and Thorazine
6. <i>The Man in the White Suit</i> (1951)	Synthetic fiber
7. <i>Kid Glove Killer</i> (1942)	Vanadium trace detection
8. <i>The Nutty Professor</i> (1963)	Androgenic-anabolic steroids
9 and 10. <i>Dr. Ehrlich's Magic Bullet</i> (1940)	Arsenic-containing antisyphilitic

Appendix 1

How to Use This Material in the Classroom

Chemistry instructors can use either entire movies or movie clips as part of their lecture strategy. Only a small subset of the movies is best suited for viewing in their entirety, as described in the next section. On the other hand, nearly all movies in this book have short “scientific explanation scenes” within their narratives that can be used in the chemical classroom to illustrate a chemical point or provoke a discussion. These 3- to 5-minute movie clips can be used for all the same reasons as lecture demonstrations.



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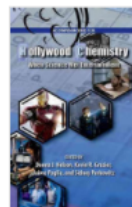
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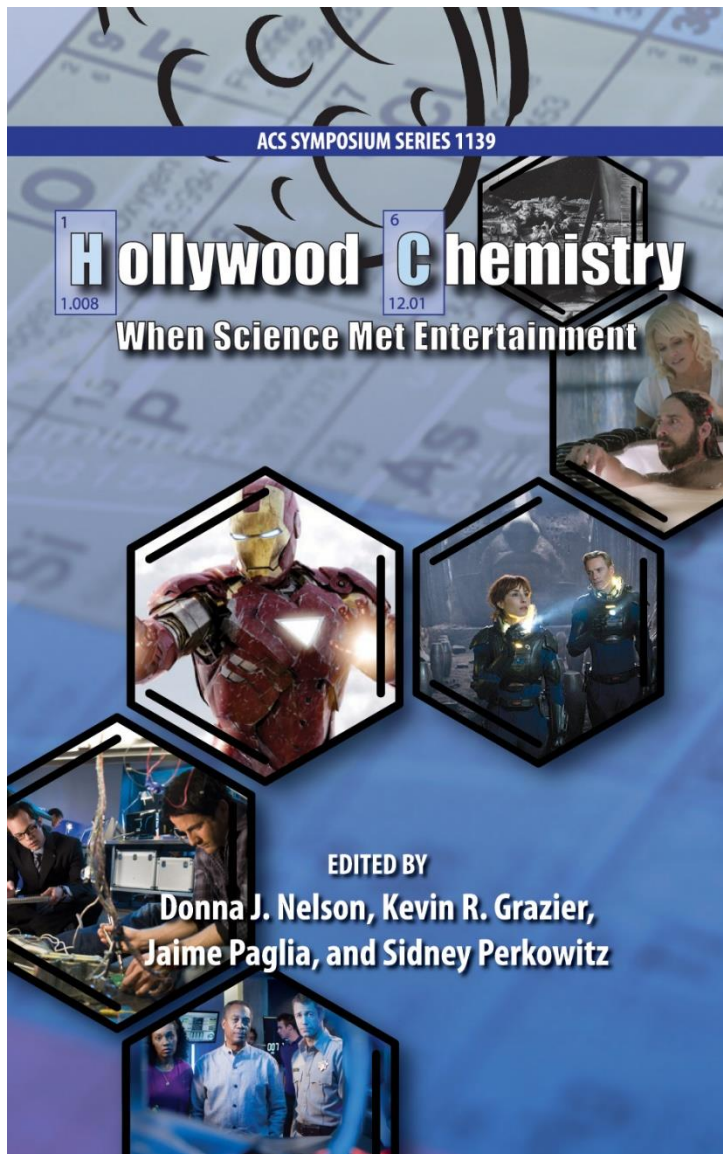
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Using the Space Program from Mercury to Apollo as Portrayed in the Movies *The Right Stuff* and *Apollo 13* and in the Mini-Series *From the Earth to the Moon* as a Teaching Tool

James G. Goll*

DOI: 10.1021/bk-2013-1139.ch016
Publication Date: September 3, 2013
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Hollywood Chemistry
Chapter 16, pp 189-197

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Abstract

This chapter will examine how popular media related to the space program can be used to demonstrate the nature and motivation of scientific inquiry and science concepts. For over fifty years, the space program has inspired students of science and engineering. The United States manned space program from project Mercury to Apollo is the subject of two movies, *The Right Stuff* and *Apollo 13*, and the mini-series *From the Earth to the Moon*. Many documentary style television productions are available to supplement these movies and the miniseries. These documentaries provide recollections from astronauts, flight controllers, and flight directors. *Moonshot* and *To the Moon* chronicle the manned space program during the Mercury, Gemini, and Apollo programs. The documentary *To the Edge and Back* inspired the movie, *Apollo 13*. The Science Channel's *Moon Machines* shows many behind-the-scenes people who made the trips to the Moon possible. The History Channel used the manned space program as a subject for several of its series: *Man, Moment, and Machine*, *Modern Marvels*, *20th Century with Mike Wallace*, and *Failure is Not an Option*.

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