



PNWFM NEWSLETTER

Inside this issue:

President's Message	1-2
Noble Witt Award 2015	3
Symposium Report	4-43
Don Howard— induction into the Micromineral Hall of Fame	44
Upcoming events	45

President's Message

Greetings, mineral lovers! It is symposium wrap-up time, but also time to announce what's coming in the next couple of years.

So Many Volunteers!

I would like to thank all the volunteers who made our "Minerals of the Northeast US and Fluorescent Minerals" symposium such a successful event:

Sean Finneson – General Support
Don Gadway – General Support
Barb and Julian Gray – Projector and General Support
Beth and Paul Heesacker – Publicity, Registration table, New case liners, Case transportation
Karen and Gary Hinderman – Auctions, Storage Coordinator, Case transportation, Solving problems before they occur.
Madison Hinderman – Auction helper
Bruce Kelley – Facebook presence, Packets, Printing, Procure awards, Minor mischief...
Al Liebetrau – Dealer Liaison, FMS liaison
Tom Menzel – Night Security, helping where ever needed
Doug Merson – Publicity
Bob Meyer – Facilities Liaison, Display Coordinator, Contest Designer
Don Newsome – Awesome fluorescence!
Lucie O'Claire – Auction helper
Linda Smith – Pre-Registration, Registration table, All things money related
Don and Pat Snyder – Fluorescent display tables, Fluorescent cases, UV lights
Rob Woodside – Mineral ID Contest
Allan Young – Speaker Recruitment
All of the FM and FMS members who set up displays
And our setup/teardown crew – Jim Etwiler, Tom Menzel, Don Gadway, and probably half a dozen I'm forgetting...



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I said this exactly the same last year, but it is still true: the sheer number of volunteers and the many hours of work you each put in speak proudly of your devotion to FM. It is a pleasure to work with such a committed group. Thank you all!

Awards

We held several contests at this year's symposium. Since there were two co-themes, we decided to have two "Best Displayed Specimen" categories:

Best NE USA Specimen: Douglas Merson: Thompsonite-CA, Datolite, Prehnite from Upper New Street Quarry, Passaic Co, NJ

Best Fluorescent Specimen: Al Liebetrau: Halite, Inowrockaw Mine, Poland

The Mineral ID contest, designed by Rob Woodside, had two categories:

Expert: Randy Gage

Master: Robert Meyer

You can see Rob's contest and the answer key later elsewhere in this newsletter.

Finally, we had a Noble Witt Award winner this year. Congratulations to Robert Meyer! You can read my induction speech later in this newsletter.

Symposium 2016-2017

2016: October 14–16: This is your year, copper lovers! Next year's theme is "**Minerals of Butte and other Copper Localities.**"

2017: October 13–15: For 2017, we have selected "**Minerals of Morocco**" which should be spectacular!

Tucson 2016

Alex Schauss would like to remind us that "FM will be putting an exhibit together at the TGMS of examples of the kinds of quality specimens that chapter members from around the country have collected on FM field trips. We have one large case, so at some point I might ask chapter presidents to form an ad hoc committee to select the ones to be displayed with the owners' consent and support, of course, in Tucson in February, based on the photos or feedback we get on the candidate specimens."

Is there anyone who would like to be part of a committee to select specimens for this display? Do you have specimens that you would like to nominate or display? Let me know!

Member Participation: Even more ways to get involved!

Write an article or send in a few photos for the newsletter. Going to a show? Send us a trip report! Find a weird fuzzy green mineral you'd like to share? Send us a photo whether you can positively identify it or not; I think mysteries are as fun as scholarly certainty. Thanks to Wes Gannaway, Beth Heesacker, Karen Hinderman, Al Liebetrau, Bob Meyer, Don Newsome, Lanny Ream, Alexander Schauss, and myself for providing newsletter content so far this year.

Plan to attend our 2015-2017 symposia:

October 14-16, 2016 **Minerals of Butte and other Copper Localities**

October 13-15, 2017 **Minerals of Morocco**

"Like" our official Facebook page: [facebook.com/PNWFM](https://www.facebook.com/PNWFM)

Visit the Rice NW Museum of Rocks and Minerals in Hillsboro, OR. PNWFM members get free admission and store discounts.

Send me ideas for how PNWFM can better serve you and the mineral collecting community.

Until next year,

-- Bruce Kelley, President, PNWFM

Noble Witt Award 2015

When Bob Meyer handed over the presidential reins to me two years ago, he gave me only one piece of advice: "My favorite part of the job is honoring members with the Noble Witt award." Last year, that was one of the things that did not happen as the more immediate tasks of getting the symposium running took precedence. Since then, I have pondered the concept. From our web site:

The idea for an award to honor an FM member or "friend" of mineralogy originated with a long time member of the PNW chapter, Noble Witt. The prestigious award soon became known as "The Noble Witt Award".

Nominations are called for each year from the membership to honor a person of the FM community that stands out as having made great contributions to the organization, to mineral science, and the mineral collecting hobby.

Nominations are received by the Chapter's Board of Directors and a recipient is selected from the nominees to receive the award and be honored at the Chapter's annual Symposium.

Every time I think about it, one person rises very quickly to the top of the list. The board of directors enthusiastically agreed with my nomination of Robert Meyer. So today, Bob, you are on the receiving end of the award. Bob was one of the first people I met at PNWFM, at my first symposium eight years ago. As is his nature, he welcomed me into the organization, included me in conversations - always sharing his knowledge and passion for minerals. When a year later, I expressed curiosity about the micro collectors group that meets in Vancouver, he gave me a ride and another great piece of advice: "You cannot fully appreciate minerals without a microscope." Later, I would see him sharing knowledge and specimens with everyone at Washington Pass.

Bob is well known for his service in Friends of Mineralogy. He was president of this chapter from 2009 through 2013, and has been a board member of the national FM. He is always one of the members who steps up and offers to help at symposium time. Currently, he holds the board position of Past President and has taken on the unenviable job of hotel liaison.

Bob has long collected systematically and according to his mindat page, has over 2000 different species in his large collection. But, his true love seems to be studying the minerals of Tiger, Arizona. When he first told me about this, his voice lit up like a child anticipating Christmas. Do I even need to mention bobbmeyerite? How cool is it to have a mineral from your favorite locality named after you? Not to go into every qualification, but the last one I will mention tonight is Bob's fine mineral photomicrography. Looking through mindat, one runs across his "ROM" photos quite frequently. I can almost always recognize his images because of their clarity, color and skillful technique, but most of all, his artistry. He has inspired me to take better photos and once again... shared his secrets with the new guy. Robert Meyer is the ideal example of a deserving Noble Witt recipient, and Bob, I hope it feels as good to receive the award as it did to present it.



PNWFM 2015 Symposium Report

By Beth Heesacker

This year's symposium was a combined PNWFM and Fluorescent Mineral Society (FMS) symposium. There are things that worked out well doing this and some problems, especially in the planning stages, but it all smoothed out in the end.

There was a large stumbling block at the beginning but progress was finally made on setup. The FMS was able to get their room on time for setting up their displays but the hotel had double booked the main room and the PNWFM had to wait until almost 5 pm to start set up. Everyone pitched in and it did not take long to have the tables ready for the dealers and to put together the cases for the minerals.



Wiring jungle
for the
fluorescent
displays



Setting up in the
fluorescent display
room



Setup in the main room



Friday evening was the time selected for the FMS meeting led by President Conrad North and VP Howard Green. They had members attending from not only Oregon and Washington but also from California, Utah, Idaho, Texas, Louisiana, New York and Massachusetts.



Conrad North, President FMS



Howard Green, VP FMS

They announced that they were working with Mindat to add more fluorescent information about minerals and are trying to form more chapters around the country. Some of these chapters could be based on interest, e.g. photography, rather than just geographic locality.

Ways of sharing information such as field trips and hooking up with others while traveling that have the same interests are on the agenda. They are also focusing on helping museums set up and maintain fluorescent displays, how to get and keep members, and reaching out to micro-mounters.

They then had a show and tell session which ended their meeting.

The Talks

The talks began on Saturday morning with a welcome and introductions by the president of the PNWFM, Bruce Kelly and Allen Young, Speaker Chairperson.



Bruce Kelley, President PNWFM



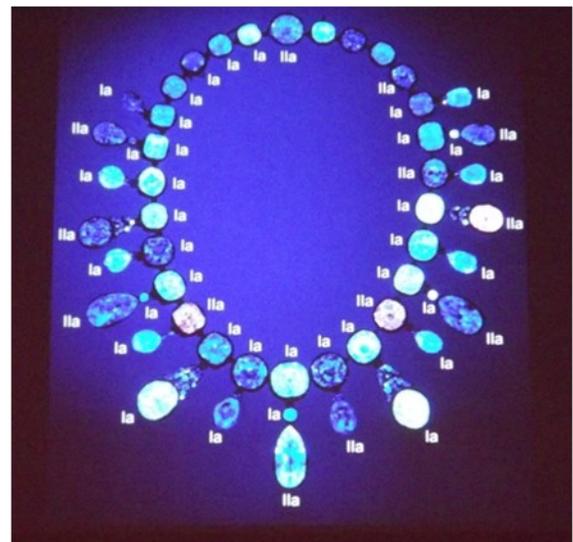
Allen Young, Speaker Chairperson



Fluorescence in Gemstones, by Jeffery Post,
Curator in charge of the National Gem and Mineral Collection, Museum of Natural History, Smithsonian Institute

Dr. Jeffrey Post has published over 80 articles on mineral subjects including articles on their structures and behaviors. He joined the Smithsonian in 1984.

The Smithsonian has a very large and unique collection of gems and minerals held in trust for the American people. He showed slides of many of the articles both in natural light and under fluorescent light. And explained why certain gems fluoresce different colors.



This first example is a diamond necklace given by Napoleon to Maria Louise. The colors of the fluorescence depends upon whether there is nitrogen present in the diamond or not, and the presence of boron or not. These diamonds are from India and Brazil.



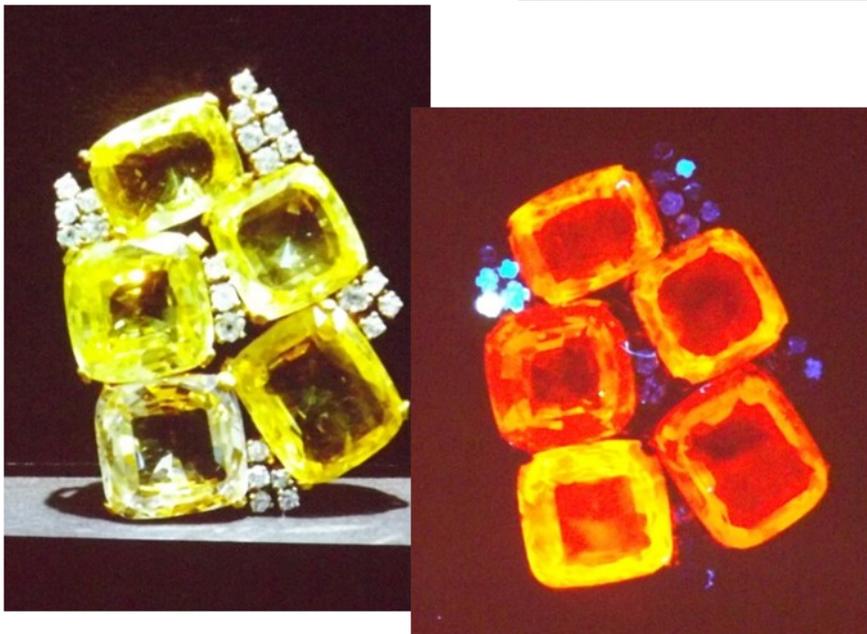
This is a diamond brooch whose diamonds have widely differing fluorescence. The color of the fluorescence can be used to determine the origin of the stones.



A diamond and pearl owl brooch under natural and UV light



A popular set of ivory camels from the collection under natural and UV light



A sapphire brooch from Sri Lanka under natural and UV light

Trace activators can sometimes help identify whether multiple stones in a piece of jewelry were cut from one crystal. The stones will fluoresce the same color.



A butterfly pin front and back. Under normal light and then under UV light



Jeff then proceeded to take us on a whirlwind tour of single stones in the Smithsonian collection.



Spodumene

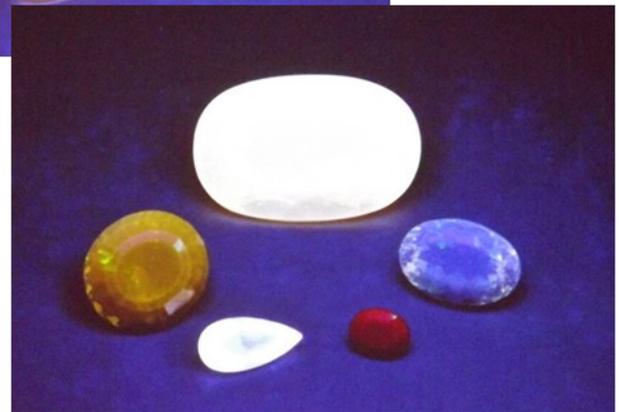


Spinel

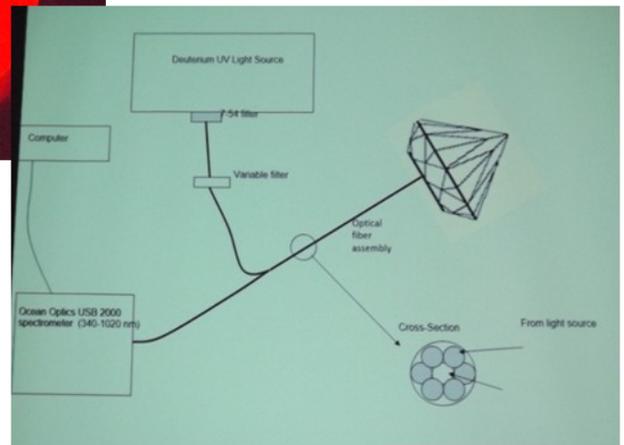
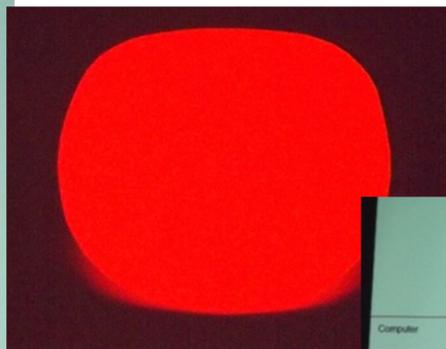
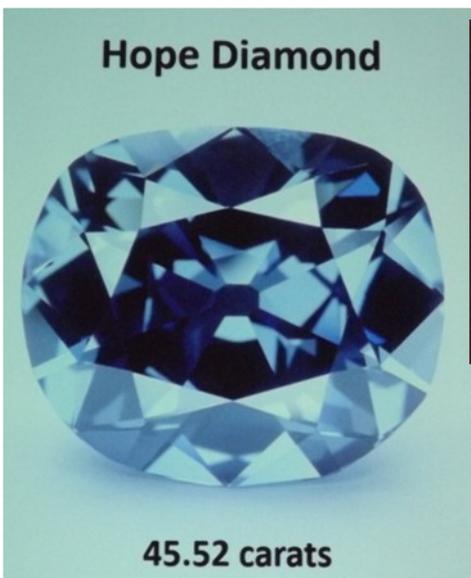


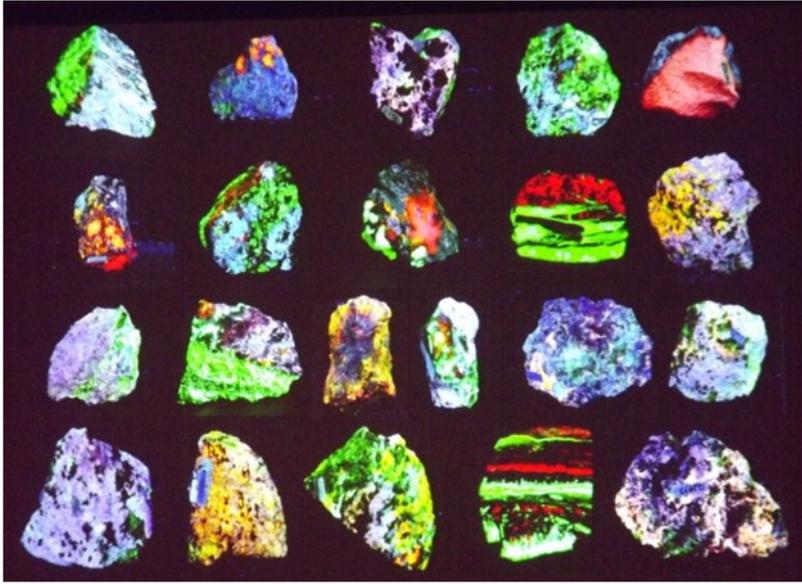


Fluorapatite, short wave and long wave

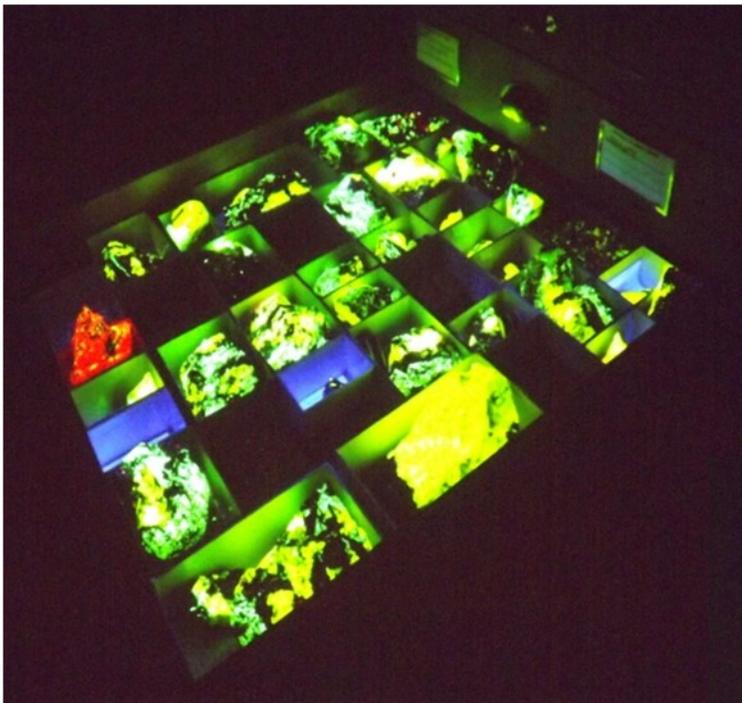


Jeff also described the Smithsonian's analysis of the Hope Diamond which does not fluoresce but does phosphoresce.



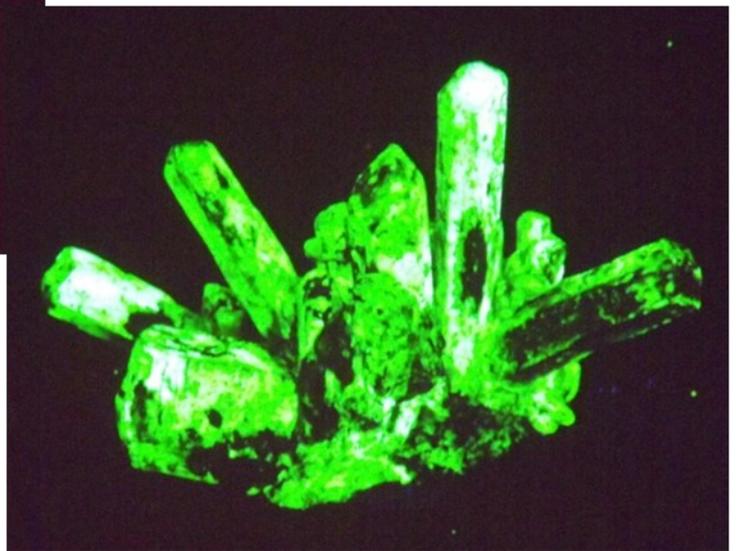


A group of non-gem specimens in the collection under UV light



The Esperite drawer under UV light

Willemite crystals under UV light

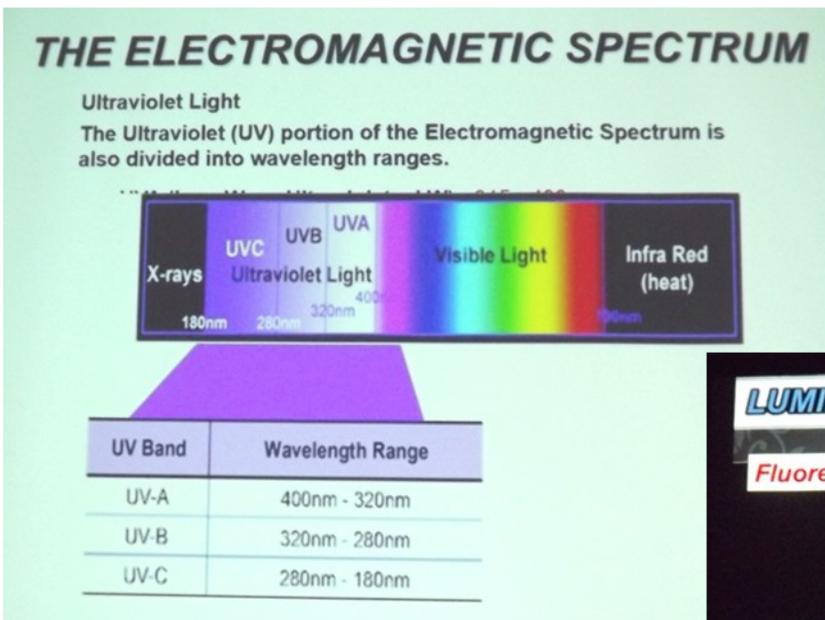




Common Minerals, Exceptional Fluorescence by Al Liebetrau

Al Liebetrau has a PhD in statistics and has held numerous teaching and research positions. He and his wife, Sue, have collected minerals for more than 50 years and have won many awards for their displays.

He gave us a very good introduction to "...escence". He explained the placement of the UV band in the electromagnetic spectrum and defined the different types of "...escence". This gave all of us beginners a good foundation for understanding the fluorescent displays a bit better.



LUMINESCENCE AND FLUORESCENCE

Fluorescence is a Type of Luminescence!

All minerals and rocks reflect light, thereby making them visible to the human eye.

Some minerals have the ability to temporarily absorb a small amount of invisible ultraviolet (UV) light (energy) and emit a small amount of this light at a different visible wavelength.

THE ORIGINAL FLUORESCENT MINERAL: FLUORITE

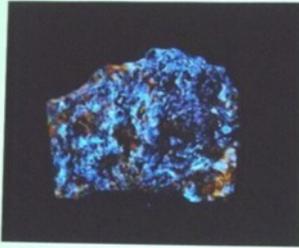
George Stokes in 1852 observed fluorescence in minerals. He noted the ability of fluorite to produce a **blue glow** when illuminated with invisible ultraviolet light. He called this phenomenon "fluorescence" after the mineral fluorite.

Uncommon Minerals that Fluoresce

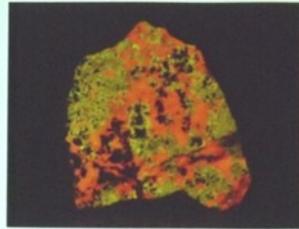
Uncommon Combinations

Margarosanite, Calcite
Cuspidine, Calcite

Franklin Mine, Franklin, Franklin Mining District, Sussex County, New Jersey



Margarosanite fl SW blue-white
Calcite fl SW orange



Cuspidine fl SW brown
Calcite fl SW orange

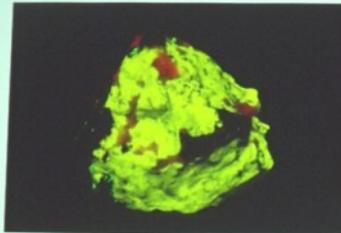
Specimens & Photos: Jim Horste

Uncommon Minerals that Fluoresce

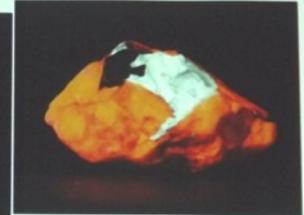
Uncommon Combinations

Esperite & Calcite
Barite & Calcite

Franklin Mine, Franklin, Franklin Mining District, Sussex County, New Jersey



Esperite fl SW yellow, Calcite fl SW red



Barite fl SW cream, Calcite fl SW red

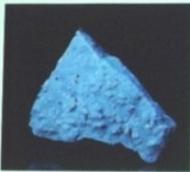
Specimens & Photos: Jim Horste

Minerals with Uncommon Fluorescence

Intrinsic Fluorescence

Scheelite

- (a) Ophir Hill Mine, Tooele County, Utah
- (b) Gharmung area, Baltistan, Pakistan
- (c) Pingwu mine, Sichuan Province, China



Specimens: (a) Allred, (b) Allred, (c) Biavati Photos: Joe Budd

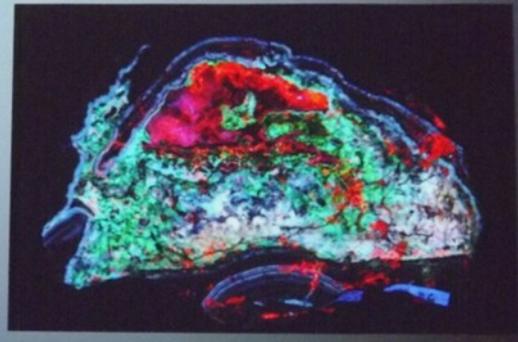
Minerals with Uncommon Fluorescence

Unusual Color

Willemite & Calcite

Putaputa Zinc Mine, Balkans Station, near Flinders Ranges, South Australia, Australia

Shortwave



Specimen & Photo: AJ Liebetrau

Minerals with Uncommon Fluorescence

Color Variations – with varying Absorption Spectrum

Aragonite

Giumentara Mine, Monte Capodarso, Agrigento Province, Sicily, Italy



Visible Light



Midwave



Longwave



Shortwave



Afterglow

Specimen: Mazzoleni Photos: Roberto Appiani

Minerals with Uncommon Fluorescence

Color Variations – with varying Absorption Spectrum

Apatite

Bulochi, Astor Valley, Astor District, Gilgit-Baltistan (Northern Areas), Pakistan



Visible Light



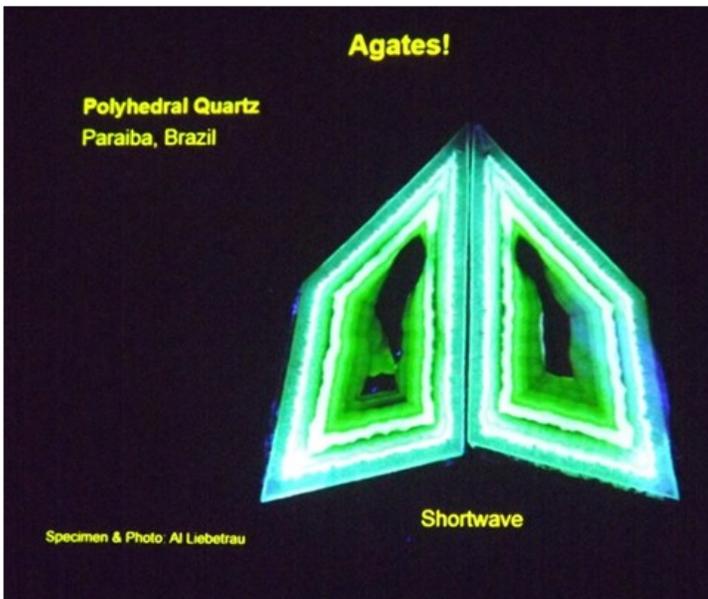
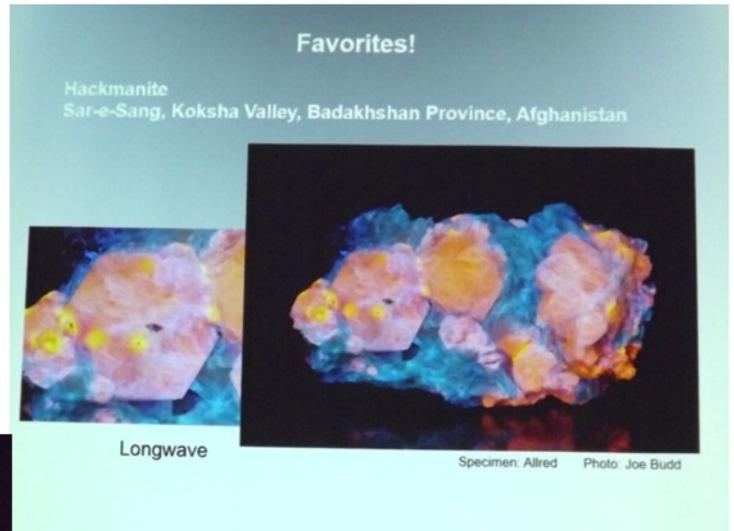
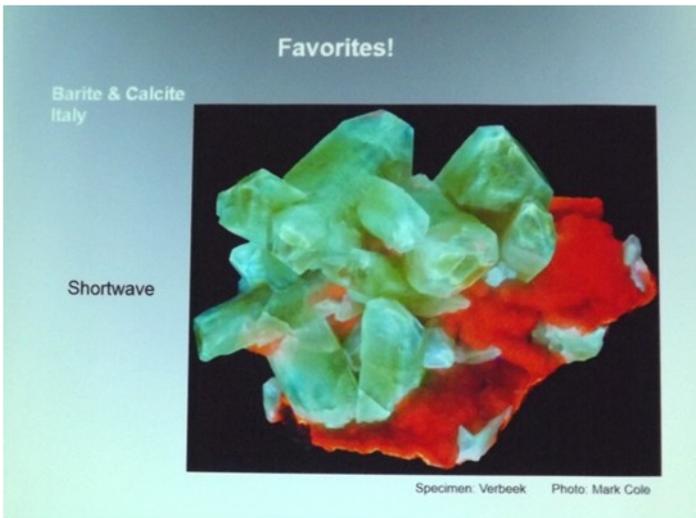
Longwave



Shortwave

Specimen: Allred Photos: Joe Budd

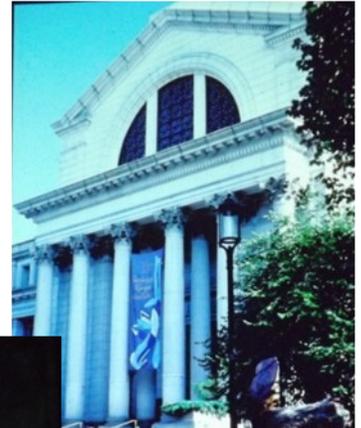
And some of his favorites.





**Highlights and Stories from the Smithsonian Gem and Mineral Collection
by Dr. Jeffrey Post, Curator in charge of the National Gem and
Mineral Collection, Museum of Natural History, Smithsonian
Institute**

The Natural History Museum, of which the Gem and Mineral Museum is a part, is one of 19 museums comprising the Smithsonian. Jeff first took us on a short guided tour of the museum of Natural History, taking us deeper and deeper into the bowels of the exhibit starting with the Western Gallery, the National Gem Collection Gallery and then they Mineral and Gem Gallery. The galleries are laid out in the hopes of not only getting people in the door but to educate and get everyone, especially the young, interested in geology.



The exhibits cover crystal shapes and coloring. These attract people close enough that you can then tell them the story behind the beauty. The museum gives them a 3 dimensional look at gems and minerals that a flat screen on a TV or computer cannot do.



Pyrite, 1 foot tall from Spain



Quartz of many colors



Quartz, 18 inches across exhibiting an interesting growth habit

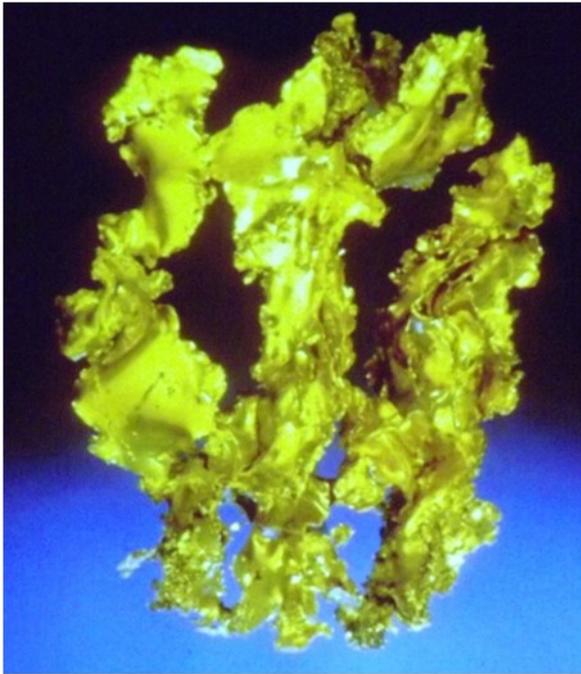
Elbaite, change of growth exhibiting sensitivity to environment



Another exhibit hall is focused on mining.



The Candelabra Tourmaline,
Tourmaline Queen Mine, Pala,
San Diego County, California



Gold from California



Azurite, 6 inches tall, from
Bisbee, Warren District, Mule Mts,
Cochise Co., Arizona, USA

The Smithsonian also has a Department of Mineral Sciences which collects and stores specimens for research and reference purposes along with a research lab. There are 3 collections: rock and ore, meteorites, and gems and minerals.

