PACIFIC NORTHWEST CHAPTER
FRIENDS OF MINERALOGY

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PNWFM NEWSLETTER

Inside this issue:

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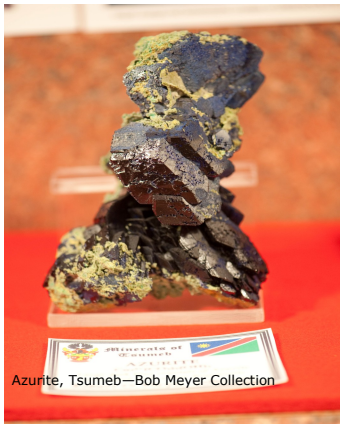
SYMPOSIUM 2009

Minerals of Africa was the theme for the 35th PNWFM Symposium held at the Red Lion in Kelso, Washington on October 16th through the 18th. Show Chairman George Gerhold and his committee organized an excellent event that was well attended and appreciated by all.

Featured speakers arranged by Allan Young included Rock Currier, well known world traveler and mineral dealer who gave two talks on Saturday, the first *A Mineral Tour of the Congo and Morocco* and then in the afternoon *A Mineral Tour of Mali and Ethiopia*. In both talks Rock showed slides of his travels buying minerals in Africa and gave wonderful accounts of his adventures. His presentations were complimented by those of the second featured speaker, John Schneider, who has built one of the finest Tsumeb specimen collections known. Schneider presented two talks, *Minerals of Tsumeb I* and *II*, giving detailed looks at the Tsumeb species showing examples of various habits and associations drawn from his own photographs of his extensive collection. He is knowledgeable on the various mineral occurrences of the mine and his talk was very informative.

Sunday's program began with chapter member George Gerhold giving a talk on his rarely granted opportunity, a *Visit to the Diamond Fields of Namibia*. He was a member of a small group that was invited to view and photograph the diamond recovery operations in Namibia. Steve Ouderkirk, then gave a presentation on *The Joys of Cataloging*, which focused on documenting private collections and preserving valuable information.



Azurite, Tsumeb—Bob Meyer Collection

Continued on page 5

NEW OFFICERS TAKE CHARGE

Officers for PNWFM serve for a two year period. This year was a time for a partial changing of the guard. Bob Meyer succeeded Wes Gannaway as President and Ray Lasmanis took over for Lorna Goebel as Vice President. Karen Hinderman is continuing as Secretary and Bill Dameron is staying on as Treasurer.

Bob has asked George Gerhold and most of his Symposium committee to continue doing their fine work. Jim Etzwiler is still the webmaster for the PNWFM website. John Lindell has begun duties as Newsletter editor relieving Lanny Ream.

Many thanks are due to the outgoing officers for their work.

Past pres Wes Gannaway greets new pres Bob Meyer

OUTGOING PRESIDENT'S REFLECTIONS - Wes Gannaway

It is with great pleasure that I turned my job as president over to Bob Meyer last weekend. This is the second time I have presented Bob with the office, and most likely the last time. I wish that I had done more but now know that what I really want to do is just share my craving for a good mineral with others. I will concentrate my efforts (I am taking more time off from my work with the intent of re-retiring this next year) on having some more of those fabulous collecting trips to some old favorite localities and maybe a few new ones. I am thinking of timing another trip in 2010 in conjunction with the start of the Denver show in September. That is a good time to collect as the heat of the summer is starting to moderate. How about the Silver Coin and the Gold Hill or the Dugway beds?

I have left the club in good hands with Bob, Ray, Karen, and Bill. Many school children and several rock and gem clubs (including my own) are the recipients of the great job done by Lorna as she finishes up her ABC project. I wish her well after her stint as the V. P. of our chapter.

The symposium is also doing very well. Our strong team of George, Al, Bill, Lee, and Alan put together a great one this year. It was a pleasure to see so many faces and I am sorry that I never got to talk to many of you. Thanks for the enthusiasm. Hopefully we can move forward and continue to grow as the foremost mineral collecting and study group in the Northwest.

Many thanks to Lanny Ream for his work on the bulletin and Ray Lasmanis on the symposium displays. Also, thanks to Rudy and the Rice Museum for their continued support of our group. I would like to also thank John Lindell for his efforts with the nomination of new officers and his taking over from Lanny with the bulletin. I will continue to write for the bulletin and I am encouraging others to do writing also. If a country hick from Darrington, Washington like I am can do this, then everyone should be able to.

Lastly, thanks to all of you for your patience and support. Wes Gannaway, Past President

INCOMING PRESIDENT'S MUSES - Bob Meyer

This is like déjà vu all over again.

—Yogi Berra

Dear friends, it is all coming back to me. Didn't I do this before? It seems like déjà vu all over again. About 12 years ago, Wes Gannaway was ending his term as PNWFM president and I heard my voice form the words, "sure, I'll take over after Wes." Too bad I have always hated the phrase "*been there, done that*," because here we go again.

The Other Half of the Job

As Yogi Berra might have said, *90 percent of the job of being President is having the right people to do the right jobs, and the other half of the job is thanking them for jobs well done*. Therefore, on behalf of PNWFM, I would like to express sincere thanks to our outgoing officers, Wes Gannaway, who served as our president for the past four years, and Lorna Goebel, who was our VP for the same period. Both did fine jobs and accomplished a great deal during their terms. Despite the fact that both Wes and Lorna have surrendered their officer positions, both will continue to be heavily involved with PNWFM business. Wes will stay on as coordinator of the Washington Pass Clean-up, will be a member of the 2010 symposium committee, and as past president, is our board chairperson. By the way, this was Wes' second stint as PNWFM president; he served another term years ago. Thank you Wes! Lorna will continue to be involved with the ABC's of Minerals program, which promises to be one of our most successful outreach programs. The full responsibility for the ABCs of Minerals program might involve substantial effort, and Linda Smith has graciously agreed to work with Lorna in administering the program. Thank you Lorna and Linda!

Many other members are also deserving of thanks. Chief among them is Lanny Ream, who has served as our newsletter editor now since 2006. Lanny has decided that he would now like to pass the torch and concentrate on other things, which might include getting out and collecting more. Thank you Lanny! John Lindell has graciously agreed to step in as our newsletter editor. Thanks, John! Additionally, I would like to thank the 2009 symposium committee *en mass*, as the same team has largely agreed to stay on as members of the 2010 symposium committee. Having dedicated, knowledgable people in these roles will be of substantial help to me and to PNWFM.

Finally, I would like to express a personal thanks to Karen Hinderman, our secretary, and Bill Dameron, our treasurer, for agreeing to stay on in their roles, and to Ray Lasmanis, who is our new VP. I look forward to working with you all for the next two years.

Still Solicitous

You don't usually take on a job like this without a vision and some idea of what you would like to accomplish. I spent a considerable amount of time thinking about that before I agreed to take on this job again. Finally, I decided to look backwards on the premise that before deciding where you want to go, it is not a bad idea to see where you have been. I read a number of the old PNWFM newsletters dating back to 12 years ago in hopes to bridge the gap in time. A number of the things I read made an impression on me.

The first thing I noticed when reading my own president's messages from 12 years ago was that that guy was younger, quite energetic, and, wow, he was very solicitous to the members. I asked myself if I was still that solicitous, and I was surprised to discover that I still am. What I wrote then is still true today:

> The Pacific Northwest Chapter of Friends of Mineralogy is a "class act." We are an active and leading chapter, and we always have been that way. Throughout the history of our chapter we have had a stream (albeit a changing one) of dedicated members. In the beginning, future PNWFM members helped to spearhead the formation of the national organization, and conceived the

idea of our chapter. Later, the vision of an evolving group of members nurtured our chapter until it assumed the form we know today. That dedicated vision is still alive in our members!

What's in Store?

I'll echo now another thing I read in one of my messages from years ago, "we are strong, both financially and in terms of the dedication of our members. *I can report to you that I feel we will continue to be strong and successful for a long while."* As you will read in other parts of this newsletter, we have completed another successful symposium—our 35th. Planning is already well underway for the next symposium, on the Minerals of Australia. We will have a general meeting on May 22nd at the Seattle Mineral Market and possibly another surprise event the next day. We intend to make some improvements and additions to the chapter website. The Washington Pass clean up will also continue—one of our most successful and long lasting outreach efforts. Another outreach effort put together in conjunction with the American Federation of Mineralogical Societies, the ABC's of Minerals program is now off the ground and will help disseminate information about mineralogy to school age children. It should be a good time for PNWFM.

Best regards,

Bob Meyer, President

BUSINESS MEETING MINUTES OCTOBER 2009

President, Wes Gannaway, opened the annual meeting with 42 members present. Special thanks were expressed to George Gerhold, Diana and Bill Dameron, Sue and Al Liebetrau, Le Snelling, and Allan Young. These individuals were instrumental in providing for another successful symposium.

MSP to approve minutes from last year's symposium as printed in newsletter.

Treasurer's report provided by Bill Dameron. Bill sent out a report prior to the symposium via email and provided an update to this at the meeting. Karen Hinderman reported that the live auction brought in a record breaking (since Karen has been reporting) $2170.

ABC Project report provided by Lorna Goebel. Lorna reported that there are now 4 boxes ready to be checked out by teachers. The NW Federation paid for CD's that include a power point program, mineral ID game, BINGO game, quiz, and lab experiments. Marc Cimolina from the Everett rock club has been preparing the specimen boxes. Each educator's box contains a CD, minerals from A –Z for hands on viewing, a baggie of minerals for the teacher to provide prizes for games, and specimens for the students. Lorna has really done a fantastic job on this project. Now she will have Linda Smith, who has volunteered to assist her. Many thanks go out to Lorna and all who have been involved in this educational program.

Last year we discussed purchasing a polo shirt to be sold at each symposium. This shirt would be more of a club shirt with our insignia instead of an annual theme shirt. Wes will continue to pursue this as well as a publicity project to provide better advertising of our club and annual symposium. Ideas include a new updated brochure to be placed at the Rice Museum, local rock shops and local rock shows, a standard insignia on the website for members to use in printing flyers for local shows, and a membership form on the website.

John Meek, Pacific Rim dealer, sent information about the symposium to every club in Washington and Oregon. Next year Al Liebetrau will take on this project.

MSP to continue annual membership to Rice Museum, $500.

New Business:

The annual WA Pass clean up and camp out will be the first weekend of August. Plan now to attend.

This year we rented a projector for $276. After discussion it was decided to continue renting for now. Allan Young will provide specific information for what is needed so that the projector we rent, whether from a member or a company, meets our needs. We also need to look at purchasing or renting a microphone that clips on, so that speakers have more freedom to move around during their presentations.

A discussion about next year's symposium included a change of time: close the floor at 9 pm Saturday night and open at 8:30am Sunday morning. We also discussed opening the partition between the show room and presentation room. Next, we discussed whether the annual symposium fee should include membership to our club for one year or should we charge more for non members. Lastly, we discussed whether satellite dealers should be registered for the symposium. On this last discussion, everyone agreed that they should. Further discussion was tabled and the board will take this up at their first meeting.

Leo will look into setting up a field trip for Friday during next year's symposium at the local quartz making facility. Next year's theme is New Zealand and Australia and the 2011 theme is Mexico.

Good of the Order:

Wes Gannaway is looking at putting together a field trip to Nevada and Utah next summer. Stayed tuned for more information.

Election of Officers:

President: Bob Meyer

Vice President: Ray Lasmanis

Secretary: Karen Hinderman

Treasurer: Bill Dameron

MSP to approve elections. Bob Meyer, newly elected President, took over the meeting for now Past President, Wes Gannaway. Bob's first comments were this is a great group because "We Get Minerals." He also thanked Lorna Goebel and Wes Gannaway for their service as officers. In conclusion, Bob asked members to please communicate your wants and desires to me.

Meeting adjourned.

TREASURER'S REPORT

Bill notes that as usual we made a little money (just over $1,200) at the symposium, only because of the auctions. Thanks Gary and Karen, and let's bring more and better stuff next year, or have even more wine!

The symposium cost over $9,000 this year, and we like to keep our bank account at nearly the cost of two symposiums. Our balance has about settled down for the year now, a bit over $13,000, so we are doing fine. It will increase next September as members pay for the 2010 symposium. This is in part due to record dues payments. Our membership for the fiscal year ending June 30, 2010 now stands at 102.

THE RICE MUSEUM

The Rice Museum, just west of Portland in Hillsboro on Highway 26 to the coast, joins the Natural History Museum of Los Angeles County as one of two superb institutions housing quality mineral specimens on the West Coast. The Rice Museum is home to arguably the finest rhodochrosite specimen from Colorado's Sweet Home Mine, famous examples of sperrylite, emerald, Alaskan epidote and Bisbee copper minerals, among others. Most of the fine crystallized gold specimens ever mined in Washington and available anywhere in the world for public viewing are also on display. The Northwest Gallery features minerals from and photos of famous localities in Washington, Oregon, Idaho, and Montana, and the best zeolites formerly in the collection of Rudy Tschernich (author of *Zeolites of the World*). Comprehensive displays of Oregon thundereggs, regional agates, important fossils, meteorites, and one of the nation's top petrified wood exhibits are also in the museum. Local schools use the museum as a major resource and account for nearly half of the nearly 20,000 visitors annually.

The PNWFM Chapter has long worked closely with the Rice Museum; the museum hosts FM meetings and FM members support the museum. Rudy Tschernich, a member of FM from its beginning, is the curator. Our chapter has a group membership, so admission fees are waived for members, although donations are needed and welcomed. The museum is generally open to the public 1pm-5pm Wed.-Sun. If you have special needs you can call Assistant Director (and FM member) Linda Kepford at 503-647-2418. All FM members are urged to take advantage of this regional treasure and get the word out to their friends. See the website at **http://www.ricenwmuseum.org/info.html** for more details and driving directions.

SAD NEWS

It is with profound regret that the Newsletter remembers the passing of three people prominent in the local mineral world this past year.

Jack Frasl, local chapter member, passed away this past summer. He was well known as owner of Earthlight, a shop in Kirkland, Washington featuring specimens, cut material, and jewelry. He traveled extensively, bringing in minerals from Mexico, Australia, Thailand, and Quartzite, Arizona. He set up at many of the local shows, including the PNWFM Symposium. He was active in PNWFM and in the Sammamish Rock Club where he served as president. He is survived by his daughter Kim, a well known beader and jewelry designer who will take over and manage Earthlight.

Carl Fadis also passed away late this summer. He started as a field collector, pioneering with his brother many of the quartz breccias in King County. As a part time dealer he later partnered with Harvey Gordon, bringing in specimens from Mexico, especially Naica. He was a floor dealer at the PNWFM Symposium. After an electrical accident at his work, he withdrew from the local mineral scene but still maintained his love for agates.

Mary Foster, beloved PNWFM chapter member, passed away this fall. She and her daughter Katherine were very active in PNWFM for years, attending all meetings and functions. She was also very active in the Edmonds Rock Club. Mary was a dedicated collector who often displayed at the symposium.

SYMPOSIUM FACES









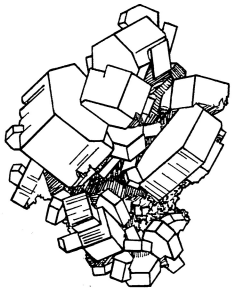

SYMPOSIUM cont.

The main show room was open free to the public throughout the weekend. Sixteen outstanding display cases anchored the center of the room. These were organized by Ray Lasmanis and were a tribute to the collections of PNWFM members. Details of the displays can be found in Ray's article below.

Dealers who supported PNWFM by setting up on the main floor included Lehigh Minerals, Earth's Treasures, Pacific Rim Minerals, and Multi-Fractured Gems. Their space rental is a huge contribution to the show. In addition,nearly 20 satellite dealers set up in motel rooms in the adjacent north wing, some coming from as far away as Nevada and California. Al and Sue Liebetrau coordinated the dealers and helped collect auction donations and dealer fees.

Saturday's evening banquet and auction were again one of the highlights of the weekend. A no host bar and excellent meal was followed by a lively auction organized by Karen and Gary Hinderman. Dueling auctioneers Karen Hinderman and Wes Gannaway kept things moving briskly and bidding was at times very competitive. This auction can literally make or break the symposium budget and again members came through with exciting donations and lively bidding, making it a huge success.

This years symposium was well run, well attended, and well appreciated by those who participated. Next year's show will be at the same venue, the Red Lion in Kelso, and will feature *Minerals of Australia.* The committee has agreed to stay on virtually intact, so expect them to produce another event that should be a guaranteed hit.



Vanadinite, Mibladen Kristin Lindell

SYMPOSIUM DISPLAYS

This year members and guests focused on the theme Africa, as represented by 15 cases featuring African minerals. It was a truly great display, in depth and quality, of African specimens owned by Northwest collectors. The Tsumeb Mine certainly ranked at the top, being featured in several cases and by specimens from the mine displayed by every collector. In reviewing the cases for this summary report, it was not possible to give each and every quality specimen it's due, so please accept my apologies. Pages could be devoted to a detailed review of crystals just from one case. As has been my practice, I do select Northwest minerals for a specific description and have done so this time for the few specimens that were included in the displays. For follow up reading on two key world-class locations that were well represented, see The Mineralogical Record, "Tsumeb!", Vol. 8, Issue 3, May/June 1977 and "Erongo!", Vol.37, No. 5, Sept./Oct. 2006.

The Rice Northwest Museum of Rocks and Minerals display was titled "Minerals of Africa" and dazzled the members with 17 museum specimens of the brightest colors, a trademark of the acquisition strategy by Richard and Helen Rice. There was bright green Congo malachite; the deepest pink sphaerocobaltite from the Musonoi Mine, Kolwezi, Katanga (Shaba) Prov., Congo; malachite pseudomorphs after 2 ½" wide by 5" long azurite xls. on 10" by 12" matrix, #1174, from Tsumeb Mine, Tsumeb, Otjikoto Region, Namibia and donated by Richard and Helen Rice; and, up to 1" single, lustrous vanadinite xls. on 10" x 10" matrix, Mibladene, Midelt, Khénifra Province, Meknès-Tafilalet Region, Morocco, #6571.

The second museum display case was brought by Alan Young with 20 specimens from the "Evans Collection" that is housed in the Mineral Museum, Boone Hall, The College of Idaho. The collection was a gift in 1970 from Glen and Ruth Evans to The College of Idaho and contains specimens from many old classic localities. In keeping with the theme, the case contained azurite from the Tsumeb Mine and dioptase from Rennéville, Congo. From the Northwest, there was displayed a beautiful 3" x 4"meta-autunite xl. group (also seen last year), #410, Daybreak Mine, Spokane Co., WA; a 1 ½" bornite xl., #402, Granite Mountain Mine, Butte, MT; 1" long thin vivianite xls., #19, Blackbird Mine, Cobalt, ID. An old classic, a clear 1 ½" terminated topaz xl., #518, Ural Mountains, Russia, and, up to ¾" purple apatite xls. on 3"x 4" matrix, Greifenstein, Erzgebirge, Saxony, Germany were also on display.

Bill and Diana Dameron again presented an outstanding display titled "A few of Africa's many Localities for Superb Specimens." The case contained 29 truly superb single xls. and groups, and a map of Africa with leaders connecting miniature photos of the displayed specimens to representative locations. From the Tsumeb Mine there were wulfenite xls. and four smithsonite specimens representing various xl. forms; a 3" x 3 ½" golden barite xl., Mashamba West Mine, Kolwezi, Haut-Katanga, Congo which is the cover photo for Bill's barite web-site **www.baritespecimenlocalities.org**; prehnite on epidote from Mali; a group of 2" cubic fluorite xls. partially coated by sparkly pyrite xls., El Hammam, near Meknès, Meknès-Tafilalet, Morocco; and my personal favorite individual specimen of the show, an incredible glistening 3" rhodochrosite group of vibrant red color from N'Chwaning Mine, Northern Cape Province, South Africa.

George Gerhold put in a case titled "Results from a Collecting Trip to Namibia and South Africa." On display were various crystals of feldspar and topaz from pegmatite deposits including nice beryl xls. from Erongo. In a corner of the case was a collection of 16 amethyst xls., many showing phantoms, from Goboboseb Mountains, Brandberg District, Erongo, Namibia; and, from the Tsumeb Mine, bright green dioptase xls. on 4" x 8" matrix.

Don Phillips treated us to his systematic reference collection of "Minerals from Tsumeb, Namibia." Case one featured 89 specimens, ½" to 3", of primary ore minerals (mostly sulfides), oxides, hydroxides and carbonates including such rare minerals as minrecordite with dioptase, sohngeite in germanite, betechtinite, and renierite. Case two contained 64 specimens, ½" to 3", of sulfates, chromates, tungstates, phosphates, arsenates, vanadates, and silicates. On display was a clear, slightly

smoky 2 ½" anglesite xl., type locality ludlockite, and rare minerals such as chudobaite, leiteite, helmutwinklerite, beudanite, and many others. Don certainly had the most complete single-location systematic collection at the symposium.

Al and Sue Liebetrau again treated the members with an outstanding selection of minerals. Their case was titled "Sweet Suites-Minerals of Africa" and consisted of 29 classic specimens, 1 ½" single xls. to 8" groups, in dazzling colors from well known localities. There were two spectacular dioptase xl. groups from the Tsumeb Mine; a very unusual bronze colored siderite after 3 ½" x 6" calcite xls. from the C'Chawing Mine, Northern Cape Province, South Africa; and, one of my favorite vanadinite xl. groups of the show, a specimen from the Acif Mine, Mibladene, Khénifra Province, Morocco.

Another case full of color was one by Wes Gannaway, "Minerals of Africa", containing 24 specimens with locations in Zaire, Morocco, and Madagascar that were well represented. From the Tsumeb Mine, Namibia, Wes had on display malachite, mimetite, smithsonite mottramite, and duftite.

Robert O. Meyer put in a great case titled "Minerals of Tsumeb" from his extensive collection. There were 33 specimens, from thumbnails to cabinet specimens, and four micro-mount photographs. They were all attractively labeled, with each label decorated by the Namibia flag and coat of arms. From primary ore, not often seen in collections, he had large specimens of chalcopyrite xls. and galena xls. There were the classic species and rarer minerals such as otavite, schaurteite, beudantite, arsentsumebite, and others.

Lorna Goebel's educational display featured layered ultramafic deposits which are a major source of the world's chromium and platinum group elements. The display included narratives on the Merensky Reef, Bushveld Complex, Northwest Province, South Africa, and the Great Dyke of Zimbabwe. The case also included photographs of Lorna's trip to the Stillwater Mine, the only, current, US producer of platinum elements and a former producer of chromite during WW II. It is located near Nye, Stillwater County, MT. A geological description of the Stillwater Complex was included. In the case were 15 specimens of various rock types, drill core, and pyrite, chalcopyrite, and enstatite from the Stillwater Mine.

John Lindell put in a very creative case that would be titled "Africa" as it not only contained 58 mineral specimens, but there were photographs, animal rock carvings, a native African doll, and beaded necklace. The specimens, from single 1" xls. from classic localities to a 10" celestite lined geode from Madagascar, were nicely presented. Just to name a few that caught my eye: beautiful, 1", lustrous carrollite xl., #3510, from Kamoto Fond, Kolwezi, Katanga (Shaba), Congo; single, 1 ½"x 3", perfect azurite xl., #512, Touissit Mine, Oujda, Morocco; a 3" x 5" group of large lustrous dioptase xls., #1002, from Tsumeb Mine; wire silver and acanthite on 2" matrix, #4367, Imiter Mine, Boumalne-Dadès, Ouarzazate Province, Morocco; and, deep green beautiful metatorbernite xls. on 3 ½" x 5" matrix, #760, Musonoi Mine, Kolwezi, Katanga (Shaba), Congo (Zaïre).

Another case of superb minerals was by Alex Schauss titled "World Classics." The 39 thumb nail specimens, chosen for their perfection, were part of his exhibit, winning best of minerals in Tucson this year, an AFMS trophy, and best mineral exhibit at the recent NWFMS show in Billings, MT. In the case, among others, was a 1" carrollite xl. from the Kamoya South Mine, Kambove, Katanga, Congo; a 1", very gemmy, blue/purple terminated zoisite var. tanzanite xl., Merelani Mine, Arusha Region, Tanzania; an incredible, 1" terminated, perfectly transparent red rhodonite xl., San Martin Mine, Chiurucu, Huallanca, Bolognesi Prov., Ancash Dept., Peru and an equally spectacular red rhodochrosite xl. from the C'Chwaning Mine, Northern Cape Province, South Africa; I could not help but notice the ¾" woodhouseite xl. from the Champion Mine, White Mountain, Mono County, CA. From the Northwest, his display had a single, perfect, 1 ¼" veszelyite xl., Black Pine Mine, Philipsburg District, Granite County, MT and, a group of 1" long pyromorphite xls., Bunker Hill Mine, Coeur d'Alene District, Shoshone Co., ID.

Alan Young's case, "Minerals of Africa", was a pleasure to see. It consisted of 32 nicely arranged, single, mostly gemmy, thumbnail crystals from well known localities. Some of the specimens that caught my eye were: gemmy meionite (scapolite) xl., Mpwapwa District, Dodoma Region, Tanzania; zoisite variety tanzanite, Merelani Hills, Arusha Region, Tanzania; elbaite, Ibadan Area, Oyo State, Nigeria; beryl variety aquamarine, Erongo Mountains, Namibia; a single 1" x 1 ½" doubly terminated diptase xl. from Tsumeb Mine; very attractive group of red microlite xls., Alto Ligonha, Mozambique; and something you rarely see, a forsterite variety peridot xl. from the classic St. John's Island, Egypt, locality.

Ray Hill put in a case "African Minerals". The 37 specimens represented most of the well-known localities in Zaire, Morocco, Madagascar, and the Congo as well as dioptase, azurite, and cerussite from the Tsumeb Mine. My favorate was a floater group of 1" platy descloizite xls. from Berg Aukas Mine, Grootfontein, Namibia. The case also had a nice acanthite xl. group from the Imiter Mine, Morocco.

For self-collected African minerals, the best case was "Okorusu Mine Fluorite" by Art Soregaroli. He displayed a suite of specimens that he had collected in 1994 at the Okorusu Mine, Otjiwarongo District, Namibia. On display were yellow, dark green, dark purple fluorite xls. groups with individual xls. up to 2 ½" on edge. On one side of the case were specimens as collected and coated by various films of calcite and limonite, while the other side had beautiful, lustrous cleaned xl. groups. The centerpiece was a gorgeous 7" x 12" specimen of fluorite xls. with up to 1" barite xls. #S94.67-N294. Another fluorite xl. group was sprinkled by tiny orange apatite xls. #S94.139-N464.

Raymond Lasmanis assembled a case of "African Minerals" from his collection dating back to 1953. As displayed by others, the case contained dioptase from the Tsumeb Mine, vanadinite xl. groups from Mibladene, and his personal favorite, a group of deep purple colored amethyst xls. , #3075, from Gamsberg , Namibia. The case also displayed commercial ores from two types of deposits: gold bearing ore, #348, from the Main Reef Leader Unit conglomerate from 5,000' below the surface of Johannesburg, Witwatersrand, South Africa, acquired as a gift from his science teacher, Joe Albertson, Jr. in 1955; and, from the Bikita pegmatite mines, Masvingo District, Zimbabwe, specimens of amblygonite(#565), lepidolite(#566), eucryptite(#567), petalite(#568), and spodumene(#569). Bikita was of interest, as it was producing pollucite for our nuclear program. I was provided with these samples by W. Erlach of Bikita in the early 1960's when it was part of Sourthern Rhodesia. In the early 1970's, Bikita lithium minerals, especially petalite, were a primary source of raw materials for Corning of NY due to their zero-expansion characteristics for the production of glass, glazes, and cookware.

The Micro Mineral Collector

By Bob Meyer

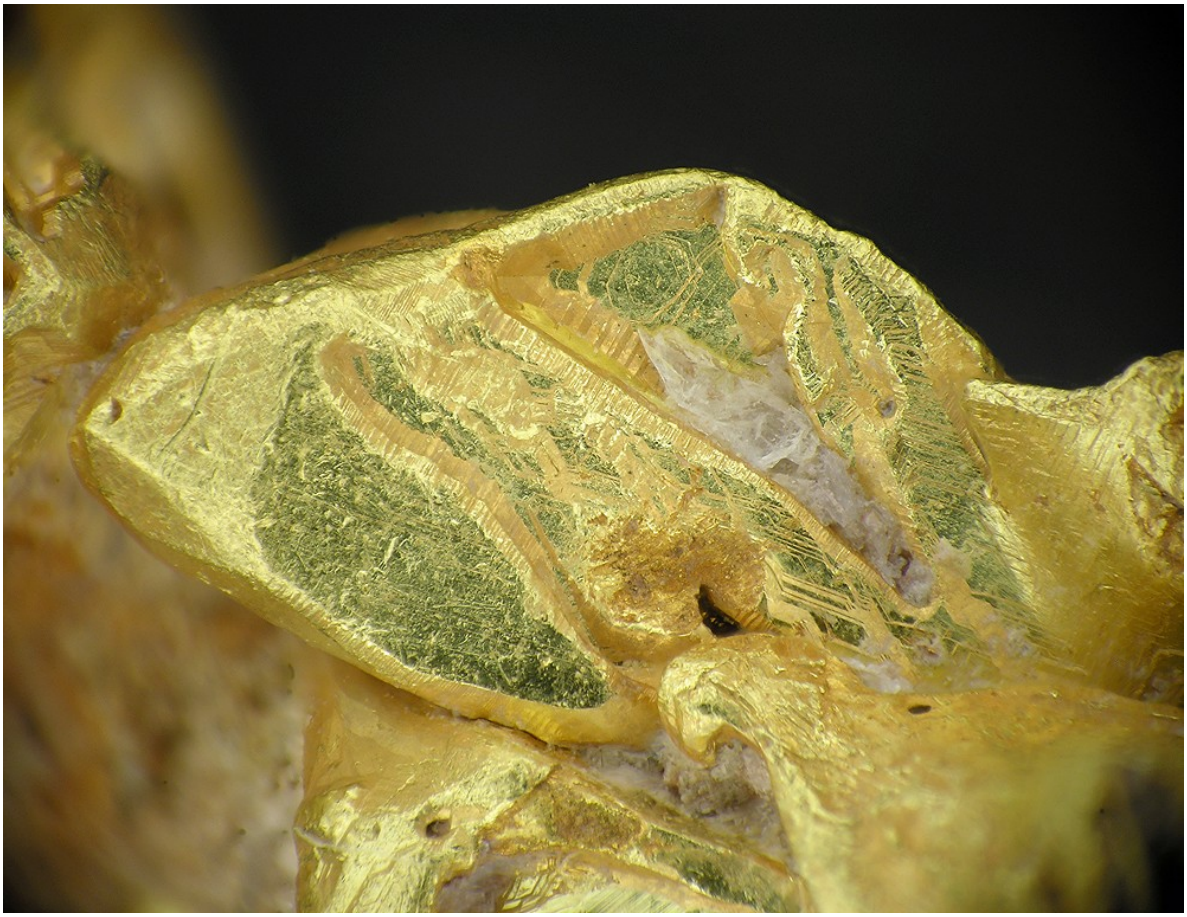


Figure one: T-Rex Head Gold Crystal—Fanciers of big specimens have "*The Dragon*." Here's a reptilian offering for fanciers of the small, a modified and twinned octahedron in the shape of a T-Rex head. From the Michigan Bluff district, Placer County, California, USA. The field of view is 3.0 mm. From the Michael Smith collection.

Buy and Use a Good Microscope—*adopted from Neil Yedlin*

Hello fellow mineral enthusiasts. This will be the first of what might be a regular series of mini articles on the subject of studying minerals with a microscope.

Premise number one: ***Every mineral collector should have access to a microscope and should use that microscope as an aid in studying their minerals. In other words, every mineral collector should be a micro mineral collector.***

It will take some work to explain the validity of this premise and we'll start with defining what a micro mineral collector is. Very simply, a ***micro mineral collector is a mineral collector who studies minerals through a microscope***. The most typical microscope that micro mineral collectors use is a stereomicroscope. ***You should not confuse micro mineral collectors with micromounters***. These are different activities. For one, it should be clearly noted that not all micro mineral collectors are micromounters. On the contrary. There are many fewer micromounters than there are micro mineral collectors. In contrast with micro mineral collectors who might collect mineral specimens of any size, micromounters are mineral collectors who collect micromounts. Thus, unlike micro mineral collectors, micromounters specialize their collecting activities in at least three different areas. First, they specialize in terms of specimen size. Micromounts typically must fit into

a certain size of box, usually 1" x 1" or smaller. Second, micromounts almost exclusively REQUIRE magnification to appreciate. Finally, the last area of specialization for micromounters concerns what is really a craft-related activity. Micromounters spend hours mounting their specimens and carefully make box liners, labels, and stands for their pieces.

Aside from the above definitions, the subject of micromounting *per se*, will not be covered in this column, mainly because the author is not a micromounter and there are already numerous publications and articles on that subject.

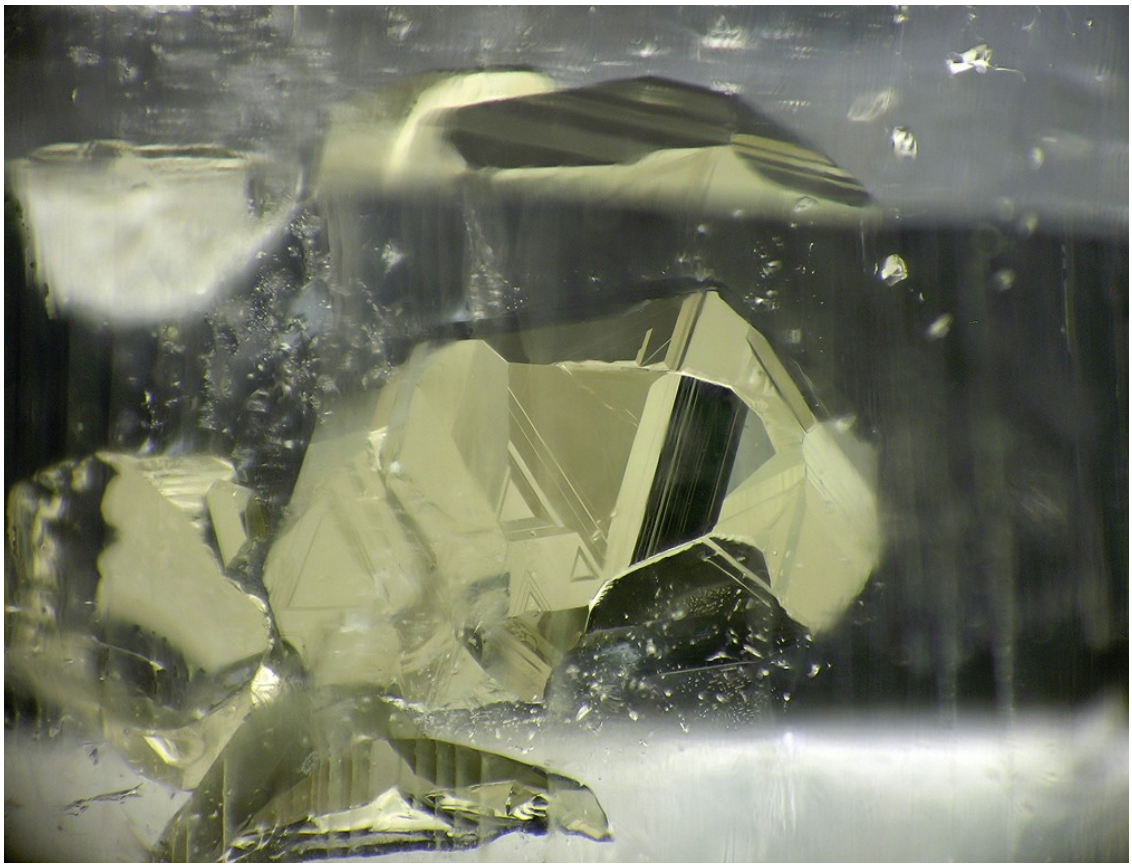


Figure two: Pyrite inclusion in Quartz. Spruce Ridge, King County, Washington, USA. A lustrous 4 mm long complex crystal of pyrite that is completely included in a Quartz crystal. The "roof" in the upper portion of the image is another view of the same pyrite crystal visible through an adjacent quartz prism face.

No matter what sort of specimens you collect, you should make it a practice to examine them with a stereomicroscope. Mineral collecting is not a two-dimensional pastime. That is one of its greatest attractions. Mineral specimens can appeal to many facets of our beings—an appreciation of the aesthetic, the scientific, natural order, and the collecting bent. For example, let's say you are a quartz specialist—quartz in all of its forms fascinates you. Most quartz specimens do not require a microscope to appreciate at first glance, but if you are not looking at them under the scope you are missing much. For example, the wondrous three-phase inclusions common in quartz, quartz's growth imperfections, its interference features, and its associated minerals. Without observing these features, it is difficult to gain an understanding of the geochemical environment that formed the quartz. In actuality, quartz is mentioned because it is a common collecting specialty and usually occurs in relatively large crystals. However, quartz is truly one of the most intriguing and amazing minerals to observe with magnification.

The same premise applies with any other group of minerals, which leads us to the second premise.

Premise number two: ***Using a microscope can teach us something we would not otherwise learn about virtually every mineral specimen in our collections.***

A stereomicroscope is an essential tool for appreciating minerals. Studying minerals with a microscope adds a depth of awareness that is not otherwise available and ultimately leads to a better understanding of mineral specimens, mineral localities, paragenesis, geochemistry, and mineralogy in general. Every mineral collector should be a micro mineral collector.

Micro Crystals Happen

One other thing that a stereomicroscope can do is allow a mineral collector to appreciate micro crystals. Micro crystals are small enough to require magnification to see, or those that are simply easier to see with a microscope. Now, before you begin heading for the hills, we are not necessarily talking about busting up specimens and trying to mount them in tiny boxes here. Let's face it though, micro crystals happen, and they are more common than big ones. You have them in your collection whether you want to admit it or not. Additionally, if you get out and do any field collecting the chances are that you have lots of micro crystals. You need a microscope to see them.

Then, there are the things you have already heard: 1) many mineral species only occur in micro crystals, and 2) micro crystals are typically more perfect and aesthetic than their larger counterparts. The fact that you have heard it before makes it no less true.

Explore your micro world and a sparkly Chilean atacamite becomes *The Land that Time Forgot*, a druzy Morenci azurite, *The Plateau of Leng*. The larger the specimen the better for this kind of thing, and one large piece can provide hours of enjoyment. The only limiting factor is that the specimen needs to fit beneath the scope.

Figure three: One Type of Photomicrographic Set-Up, this one centered around an Optem Zoom 125C machine vision lens.

The Optical Race

Exploring micro worlds is an optical experience, and so micro mineral collectors are often tempted towards another optical exercize—to photograph the views they witness—one optical race a natural seeming extension of the other. Before you embark down that path, though, it is important to mention that studying minerals with a microscope is vastly different than photographing them through a microscope. Viewing minerals with a microscope is not particularly stressful, nor does it require great skill; actually, exploring micro worlds can be relaxing, even therapeutic. In contrast, photographing micro minerals can be quite frustrating, and achieving decent results will involve a large investment in equipment, time, and patience. Every phase of the micro mineral photography process involves skill. With that being said, if you have your heart set on photographing micro minerals then go for it.

Figure three shows one photomicrographic set-up. The heart of the system is high quality machine vision lens, which is a specialized single path zoom microscope, designed to be object-space telecentric at varying magnifications. Telecentricity is an optical property that tends to keep out-of-focus elements the same size as they will appear when in focus. In contrast, most trinocular microscopes on the market are not designed to be telecentric. With image stacking, the importance of telecentricity becomes apparent, as bright and dark ghosting problems are minimized. Attached to the machine vision lens is a digital camera, which is, in turn, hooked up to a video monitor that displays a real-time image. The real-time image is used for composing and focusing the photograph. The camera is activated with a wireless remote control.

A stack of images is taken at varying focal planes, and the resulting images are uploaded onto a computer. The image stack is processed using one of the various stacking applications. The resulting image is then processed using Photoshop or an equivalent application.

Lighting is a crucial element in obtaining decent results. The primary illuminator shown in the photograph is an eight-inch diameter fiber optic ring light, which can be adjusted to light the specimen from above or obliquely. Other illuminators can be added, along with diffusers, filters, reflectors, and objects to block or absorb light. Obtaining the appropriate light balance can be very time consuming and frustrating.

Micro Minerals from Australia

The topic of our next symposium, in 2010, will be *Minerals of Australia*. Australia is rich in micro minerals, but is unlikely that micro mineralogy will be covered in depth among the presentations next year. Therefore, a photographic selection of diminutive eye candy hailing from Down Under is included below to help fill that void.

Figure four: Crocoite with Pyromorphite—Kosminsky Mine, Dundas, Tasmania, Australia.
A superb terminated 3.7 mm long crystal with green hexagonal Pyromophite.

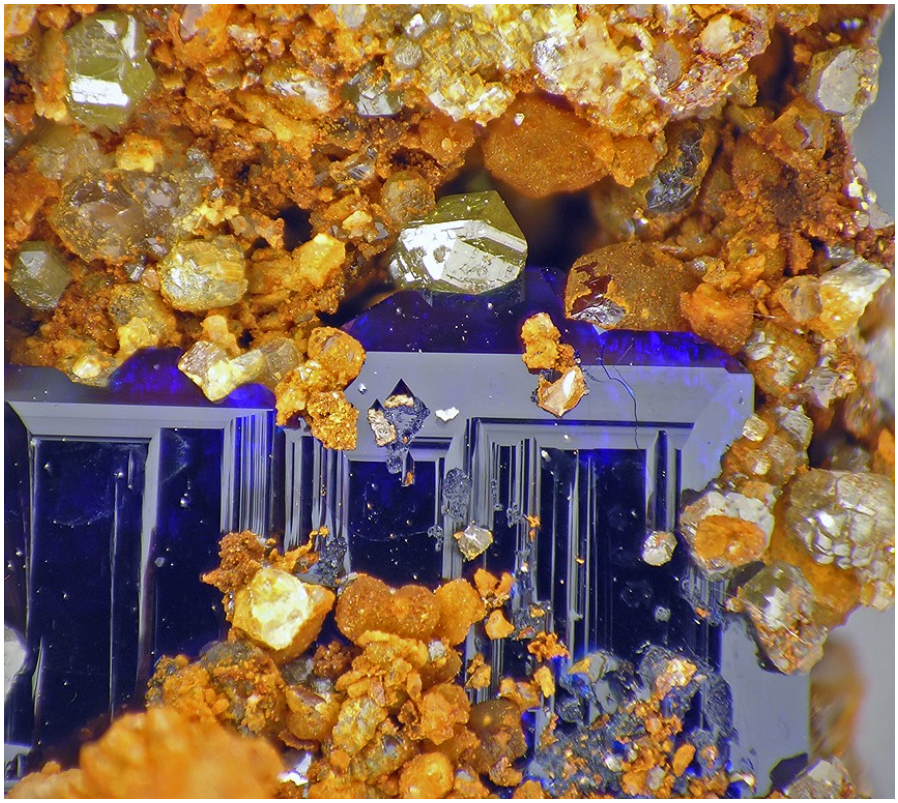


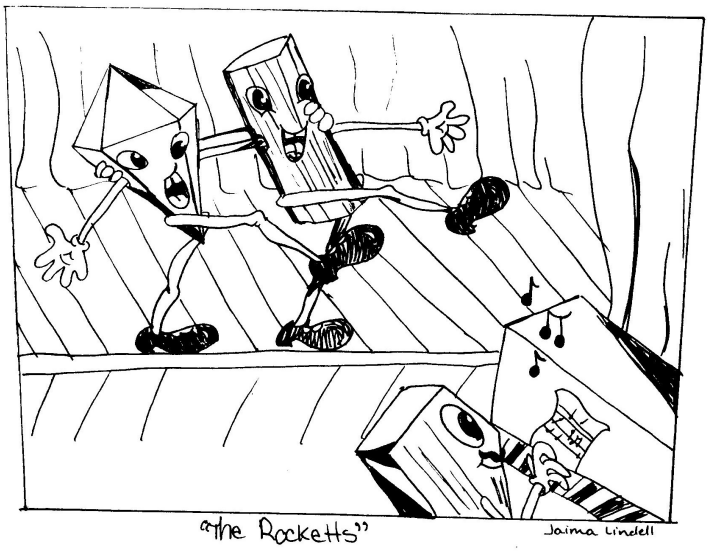
Figure five: Bromian Chlorargyrite on Azurite—Broken Hill, New South Wales, Australia.
A sharp greenish crystal of bromian Chlorargyrite on royal blue Azurite. The field of view is 3.6 mm.

Figure six: Pyromorphite on Hinsdalite pseudomorphs after Pyromorphite
Pyromorphite Lode, Zeehan Queen Mine, Zeehan, Tasmania,
Australia. The field of view is 3 mm.

Figure seven: Crocoite on Dundasite—Adelaide Mine, Dundas, Tasmania, Australia. Two transparent terminated red crystals of Crocoite, one of them showing healed growth, on snow-white acicular Dundasite, a mineral species named after this district. The field of view is 3.8 mm.

Figure eight: Lavendulan—Kundip, Western Australia, Australia. Bright blue crystals on matrix. The field of view is 1.2 mm.

Figure nine: Pyromorphite with Malachite—Rum Jungle, Northern Territory, Australia. Beautiful sprays of chatoyant green Malachite protruding from the interstices between sharp green hexagonal crystals of Pyromorphite. The field of view is 4.2 mm.



ABC Project

The ABCs is an educational outreach program jointly sponsored by the Northwest Chapter FM and the Northwest Federation of Mineralogical Societies. The program consists of 26 mounted minerals (one for each letter of the alphabet), a set of about 18 "hands-on" representative minerals, an instructional CD and about 30 very small mineral samples to be used as prizes for the two games (Mineral Bingo and Mineral Rummy) developed for the program.

The fee to borrow the mineral set is $50; refundable with return of the minerals. The "hands-on" samples, CD, and prizes are for the borrower to keep. There is a loan form (attached here) to complete and send with the deposit. The program is packed into a large priority mail box and costs $13.95 to mail. The return minerals are packed in a medium priority mail box and costs the borrower $12.95 to return. The CD has instructions for the games, including how to make the bingo cards. The CD has about 150 photographs of minerals donated by George Gerhold from the Photographic Atlas of Minerals. There are a total of four mineral programs that can be sent out.

If a business donates prize minerals their name is added to a "Thank You" sign setup beside the case at shows.

The display has been shown at the last 4 Federation shows, the Everett Gem Show, Bellingham Gem Show, and the Clackamette Gem and Mineral Show.

ABCs PROJECT ARCHITECTURE AND CONTACTS

Modified December, 2009

ARCHITECTURE

The two chairs of the project are:

Toby Cozens representing American Federation of Mineral Societies (now deceased)

Lorna Goebel representing Friends of Mineralogy

The co-chairs for each organization are:

Rusty Etzwiler for Friends of Mineralogy

Marc Cimolino for American Federation of Mineral Societies (did all the labels)

HELPERS THAT WILL GIVE IDEAS, CRITIC, PROOF, ETC.

Carol Bartlett

Gary Buhr

John Cornish

Arlene Handley

Gerry Klein

Linda Smith - assisting Lorna for PNWFM

George Gerhold - making the original photos available

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RENTAL AGREEMENT FOR ABC CASE

This agreement is between _____, in _____ School District or a member of Friends of Mineralogy and Lorna Goebel, Friends of Mineralogy and Northwest Federation of Mineralogical Societies for a rental of a set of ABC minerals containing one mineral for each letter of the alphabet. Included in each set are a "Hands-on-set" of minerals, an Instructional CD and a bag of small minerals to use as prizes for the games. The "Hands-on-set", prize bag, and CD are for the borrower to keep after the rental time. The 26 minerals in the tubes must be returned in the enclosed medium priority mail box.

On the instructional CD are a series of instructional tips, some possible assignments, possible exam questions, instructions for the games, and about 150 pictures of minerals with their uses, and references to the Web for additional pictures and information.

The cost for the rental of the case is a refundable $50.00, which will be refunded upon receipt of the returned ABC display minerals. The tubes should be returned within 30 days to prevent penalty. The above named club or school is responsible for the return postage on the medium priority box with the display. The tubes should not be opened as some specimens may damaged and may be damaged beyond repair.

Rental Signature

_____

_____
School/Club

Lorna Goebel

Lorna Goebel

Friends of Mineralogy/Northwest
Federation of Mineral Societies

Barite Reference Website

In addition to well-known MinDat (**http://www.mindat.org/**), the world's "Wikipedia" and more for mineral collectors, chapter member Bill Dameron maintains a reference site for collectors featuring barite. Bill has carefully researched complete locality data (with correct spellings) for most barite specimen localities in the world and the site has over 600 quality photos of what good specimens from these localities look like (virtually all specimens larger than thumbnail size). Readers may wish to compare their barite labels to the information on the site, or just look at the photos: **http://www.baritespecimenlocalities.org/**

Ray Lasmanis recently had the opportunity to tour the newly opened Buckhorn Mine near Republic, Washington. Gold occurs in a skarn. Unfortunately no open pockets for euhedral crystals.

DONATION APPEAL

Dear PNWFM member,

Would you consider leading a field trip and donating **participation in the mineral dig to the Port Townsend Marine Science Center fund raising auction,** coming up on March 13, 2010? This kind of experience would make a really fun and memorable family learning adventure, and I think would appeal to our crowd of bidders, mostly retired folks, with lots of free time, and grandchildren they want to bond with.

Every year over 7,000 regional students and educators explore Washington's inland marine and coastal environments through Port Townsend Marine Science Center programs. Another 30,000 people learn of recent discoveries, as well as natural history science basics, through exhibit visits, lectures, classes, study groups, geology, botany, and marine biology field trips, blogs, and cruises. Volunteers, interns, and Americorps volunteers collaborate with biologists monitoring water quality, invasive marine organisms, plastic waste, kelp harvest impacts, and marine bird and mammal populations. They also assist with restoration of eelgrass and Olympia oyster beds, shoreline habitat, and streams. In 2008 volunteers donated about 10,000 hours. New projects enabling people to experience nature and scientific inquiry are always starting, with ever more people getting involved. Americorps volunteers have launched careers from PTMSC. One now runs the Marine Mammal Stranding network for Washington, and another the diving program at Friday Harbor Labs to name a few.

The Marine Science Center, like all non-profits, especially education facilities, runs on a very tight and efficient budget, now tighter than ever. Our annual auction generates much needed operating funds. **We hope to raise enough money with this particular auction to offer scholarships to all the school classes that have lost field trip funding as well as launch our upcoming orca exhibit.** We don't want kids to miss out on our hands-on, muddy boots science.

If you'd like to donate some tickets, **please fill in the attached donor form.** After filling out the form, **please email it back to me at** pamgray@olypen.com**.**

Thank you for considering supporting the Port Townsend Marine Science Center in these tough economic times. Community support is needed more than ever, as you know. I hope your organization continues to thrive. We need fun more than usual when times get tough! There's nothing like a little adventure to blow away funkiness, clear the head, and get the creative juices flowing again.

Pam Gray

PTMSC volunteer

(360) 385-7263

pamgray@olypen.com

Port Townsend Marine Science Center
Dedicated to Marine & Coastal Education & Conservation

FOR OFFICE USE
Procurement # _____
Catalog # _____
Solicited by: _____

TIDES OF MARCH BENEFIT AUCTION

Saturday, March 13, 2010, 5 - 9 pm
Jefferson County Fairgrounds

AUCTION DONATION FORM

Donation Forms Due by March 1st
Items Due by March 5th

Donor Name (Individual or business as it will appear in catalogue)

Contact Name for Arrangements | Contact Phone | E-mail

Mailing Address for receipt | City, State, Zip

Item Name for Catalog | Approximate Value: $ _____ (Donor declared tax deductible value)

BRIEF Item Description (75 words or less including restrictions listed below)

Tangible Item:
___Delivered with this form
___Will be delivered by 3/1
___To be created by PTMSC

Donor restrictions including date and location of activity offered, expiration dates, if applicable, pick up or redemption instructions, number of participants allowed, or other essential information.

(Certificates will expire 3/15/2011 unless otherwise specified)

THANK YOU.

PTMSC is a 501(c)(3) non-profit organization.
Donations are tax deductible as approved by the IRS.
An acknowledgement of your gift will be sent for income tax purposes.

Port Townsend Marine Science Center • 532 Battery Way • Port Townsend, WA 98368
(360) 385-5582 • Fax: (360) 385-7248 • E-mail: info@ptmsc.org • Web site: www.ptmsc.org

Seattle Mineral Market # 3

Free Admission

Saturday, May 22, 2010 - 10 AM until 6 PM
Dealer to Dealer Preview 9 AM to 10AM
Dealer Load in 7 PM on the 21st 7AM on the 22nd
Some Commerce the night of May 21st

Lake City Community Center 12531 28th Ave NE
Northbound I-5, take Exit 174, Right on NE 130th, Left on 28th Ave NE
Southbound I-5, take Exit 175, Left onto NE 145th, Right on 15th AVE NE, Left on NE 125th, LEFT onto NE 28th

Contact: Bart Cannon 206 522 9233 bart@cannonmicroprobe.com
Website: <www.cannonmicroprobe.com/test.htm>

Quartz, tourmaline | Brazilianite | Smoky Quartz | Arkansas Quartz

PACIFIC NORTHWEST CHAPTER FRIENDS OF MINERALOGY

www.PNWFM.org

Editor: John Lindell

lindell4@aol.com

PNWFM CALENDAR

Feb 5-8 - Westward Look Show, Tucson AZ promoted by chapter member Dave Waisman

Feb 11-14 - 56th Tucson Gem and Mineral Show

May 22 - PNWFM General Meeting held at **Seattle Mineral Market**, Lake City, WA

Aug 6-8 - Annual **Washington Pass Cleanup** and collecting fieldtrip

Oct 15-17 - 36th PNWFM Symposium, *Minerals of Australia*, Kelso, WA

Oct 14-16, 2011 - **37th PNWFM Symposium**, *Minerals of Mexico*, Kelso, WA

DUES FORM

_____ _____

Last Name First Name

_____

Street Address

_____

City, State, Zip

_____

Phone

_____

E-mail address

Dues

We currently have 102 members paid up for 2010. The chapter's fiscal year runs from July 1 through June 30. Dues are $15 annually, of which $6 goes to the National FM. If you have paid dues since July 1, 2009 please do NOT pay again. Also note we cannot accept 2011 dues until July 1.

Otherwise, you can send your dues to me at any time before June 30, 2009 using the form below. If you pay by January our outstanding membership is reflected in the report at the annual FM meeting in Tucson. Ask me if you don't know your dues status: mailto:baritebill@aol.com.

We assume you want to save money, receive color newsletters faster and store your national and chapter newsletters on your computer. Newsletters will be sent via e-mail unless you have made special arrangements with the newsletter editor, who has to go out and buy stamps, print the newsletters (not cheap), lick the glue and go back to the post office. So, include your current e-mail address below and let me (treasurer) know if it changes.

Return completed dues forms with your check for $15 made out to PNWFM to:

Bill Dameron, Treasurer, PNWFM
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Vancouver, WA 98665