NORTHWEST MICRO-MINERAL NEWS

March 23, 1972

Dear Micromineralogist's,

It is now time to make plans to attend our next meeting which will be held April 29 & 30 at the future retirement home of Stan and Edith Heilman near Raymond, Washington. A map and instructions on how to reach their place is included.

Some of our members have indicated that they will be arriving on Friday evening, April 28. Stan and Edith will have their recreation room open Saturday morning whenever people congregate and start setting up, visiting, looking through their scopes and trading or whatever. The business meeting will start Saturday following lunch which will be a sack lunch. If anyone plans on staying at a motel and feels that a lunch brought from home would be rather stale by Saturday noon, bring some makings along or a can of soup, there will be plenty of kitchen facilities available.

There should be ample parking space for the campers and trailers on Heilman's property, but of course no hook ups. For those desiring a motel, Edith has written that the Mountcastle Motel at Raymond, Washington (phone 942-3488) is very nice, not super fancy, but clean and comfortable. Their rates range from $8.00 for one person, $10.00 for 2 people - 1 bed, $12.00 for 2 people - 2 beds, $14.00 for 3 people - 2 beds, on up to $20.00 for 6 people in 3 beds. They furnish courtesy coffee in rooms, an evening paper Monday thru Saturday, free T.V. and electric heat. If anyone should fail to obtain a reservation (which is highly unlikely) come anyhow, there is at least one more motel available and if you bring your sleeping bag I'm sure we can find room for you at Heilman's.

Our meal Saturday evening will be potluck. We expect to provide baked ham and scalloped potatoes supplemented by your contributions. If those of you whose last name begins with the letter A through L would bring a salad and those whose last name begins with the letter M through Z would bring a dessert we should be well supplied with food. I realize that some of our members might find this inconvenient and if they will contact me soon, we will make arrangements for them to bring such things as butter, rolls, olives, pickles, etc. or perhaps contribute toward the cost of the ham. Knowing how rockhounds usually bring food in quantity for their pot luck dinners and that our group is no exception, I'm betting we will be eating leftovers for lunch on Sunday.

The recreation room at Heilman's should be ample sized to accomodate us and additional tables will be made utilizing plywood with saw horses or something for support; but if you have a folding chair or two that you could easily bring along, please do as we will require some extra chairs.

It would be helpful to know how many to plan on so as to be prepared with tables, electrical outlets for lights and sufficient ham and potatoes. Please fill out the form below and return to Lee Kendall, P. O. Box 5, Glenwood, Oregon 97120.

Clip Here

Dear Micromineralogist's;

As time for our next meeting comes closer the inevitable question comes up - How are we going to plan our time? Experience has shown that an informal gathering seems to be the most accepted. Attempts to interrupt our work table gathering once at the microscopes is very difficult. And yet, it seems that there should be some attempt to bring a little educational value into the meeting (more than that shared on a one to one basis). In an attempt to satisfy all our requirements let's try the following for our meeting hours:

1. Each member bring along a small group of specimens (3,4, or 5 more or less) that can be placed in a box and made available for each person, in his turn, to take to his microscope for special study. Accompanying this group of specimens should be some descriptive and educational material; something that will add a bit to each individuals interest of minerals. Some suggestions might be: a suite of minerals from one locality, of one element, etc.; a new locality; a suite for crystal study; something you can't identify and would like help with. And so on. Even a group of unrelated but ineresting or attractive specimens. No lengthy discussions are necessary but just something to let us share the interest you have found. If we all cooperate we can find this fun and educational. (This is very similar to what Rudy T. did for us last meeting with zeolites).

2. Remember the suggestion Ford Wilson gave us at the last meeting - 32 boxes, each titled with one of the crystal classes (check in Dana's Textbook of Mineralogy - they are listed in the table of contents). How about bringing these along and see if we can't help each other fill them up and even learn a bit doing it. Maybe Ford can even be prevailed upon to further educate us in crystallography. If you're not watching for those rare faces and unusual forms you are missing some of the best specimens. Ford had an excellent suggestion for us. Let's follow it up.

3. Bring some nice trading material. This always seems to be the main attraction of the meeting and occupies the greatest part of our time so come prepared.

4. We'll have a chance to see some of Rudy Tschernich's slides. Three different collecting localities. This will probably be Saturday evening following our dinner.

5. Last meeting we voted to prepare a slide program on zeolites for the NW. Fed. If you have some slides bring them along. Also, if you have some specimens which you feel would fit into such a program, bring them along and some of us will be prepared to take pictures.

3 scopes
Dinner time

6. Unfortunately we will have to leave our microscopes for a while to consider some business. Some things to ponder: Should we incorporate? It may be desireable as a means of protecting ourselves against liability problems. How about another booth, as at Seattle, for the Portland show? It seemed successful at Seattle. Field trip dates? Would you like a Swap Session sometime this summer? Rudy T. and Bob Hagglund will have some suggestions.

This at least can be a starting point and we'll work from there.

George Williams

next to last weekend october = next meeting -

FIELD TRIPS FOR NORTHWEST MICRO MINERAL STUDY GROUP ....:.. 1972

After much pondering about where to have a three day field trip that wwould provide new and interesting micro specimens and keep the group busy for three days, I have decided to forget a three day trip and instead have several shorter trips. These short trips will be to widely different areas. Some members may not be able to make some of the trips because of the long distance needed to travel ...but we must go where the minerals are... and travel we must do.

TRIP 1

ROCK ISLAND DAM, NEAR WENATCHEE, WASHINGTON (app. date in early May) Next Sat.

Minerals present: Paulingite (a very rare zeolite). This is the type location for this mineral.
Offretite and Erionite (both rare zeolites)
Phillipsite (fine micros - commonly in twins)
Heulandite
Filiform Pyrite
Calcite

Material is collected on a bank near the fish ladder where it was dumped when the rock was dredged from the Columbia River during construction of the dam. Collecting is easy..just pick up 3 to 4 inch chunks that look promising and take it home...crystals are too small to be identified in the field. Collecting should take only a couple of hours. This location will SOON BE DEPLETED so do not put it off.

TRIP 2

First week in August

SUMMIT ROCK, NEAR DIAMOND LAKE, ~~southern~~ Oregon (app. date July)

Mineral present: Plagioclase, orthopyroxene, augite, ilmenite, magnetite, rutile, pseudobrookite, quartz, cristobalite, hematite, acmite, tridymite, apatite and others????

A small quarry at this location is abundantly filled with pockets containing the above minerals. Some minerals are very scarce... others are very common. This material is excellent under the scope and is very easy to collect.

TRIP 3

McKENZIE PASS AREA, OREGON (app. date late August to September)

Minerals present: OSUMILITE (a rare and very fine micro mineral)
Several other minerals of questionable identification.

This trip requires about a 3.5 mile hike.

EXACT DATES AND ~~DETAILS~~ WILL BE AGREED UPON AT THE APRIL 29-30 MEETING.

Rudy Tschernich
Field Trip Chairman

Drain - Memorial Day -

So to Drain - Turn to coast at Main Light - go 1 mile - turn left across bridge & continue S 263 miles - - Freeway on right

3rd wk in July 15-16 Camp session

SOME TECHNIQUES FOR DO-IT-YOURSELF MICROCRYSTAL STUDY.

By Ford E Wilson as reported at the October 1971, N.W. Micro-Mineral Study Group Mtg.

No. 5 in a series of microscopy notes.

The most fundamental diagnostic properties of a mineral are those resulting from its crystallinity. It should be strongly emphasized that the identification of a mineral must largely be based on crystal morphology as well as on physical properties derived from crystal structure. Almost any well-behaved mineral reference book should furnish much of the data required by the micromineralogist. Large crystals are not necessary for precise crystallographic studies. As an example of this, reference may be made to the drawings of intricate crystals reported from the Terlingua Mercury district in Texas. All of the crystals used in that bit of research were of mini size, 1 to 3 mm.

For us, perhaps one of the most important characteristic properties of crystals is the speed of light passing through them. Identification of fibrous zeolites by their behavior in immersion liquids is based on determining such properties.

Most micro-specimens, such as all collectors have, may be likened to mineral bouquets. My uninitiated friends who look through a 'scope at such objects are amazed at the unexpected fairyland. No criticism is aimed at such bouquets. I have them myself.

It seems proper to introduce here a new guide line. We as micromineralogists would do well to focus some of our attention on the individual flowers plucked out of our mineral bouquets. For our purposes of study perhaps we should move in the direction of single-crystal mounts. The means are already at hand. Park each crystal atop a slim pedestal, something of the order of 1 or 2 mm. Let us develop this concept a bit further to see how it applies in several fields of study.

Some knowledge of the several crystal systems, with their intangible axes and the space relationships of crystal faces or forms to these axes, is essential. As a start in our single-crystal program it would be well to make a set of mineral mounts to represent the 6 major systems and one subordinate system. If this seems too elementary, then do the same thing for the 32 crystal classes. In either case, set up the required number of micro boxes and mount a single crystal in each. Position them so that a desired crystallographic orientation results. In many cases it is best, probably, to set the c-axis vertically, the a-axis from front to back and the c-axis from side to side. Such a reference set will facilitate determination of crystal system, especially if we make it with our own little fingers!

It cannot be too strongly urged that you become acquainted with the forms occuring in eacy system. One way to do this is from the making and study of single-crystal mounts. Crystals could be selected to display, so far as possible, all of the known crystal forms. Preparation of such a set is not especially difficult. It is not meant that a different crystal is required for each different form. Search through your own accumulated material for pertinent items. Swap with your friends and keep an eye on dealers' offerings. Last summer at the Prineville Pow-Wow, I scanned the stuff, to us mostly worthless, offered by the tail-gaters. One such had a small chunk of hemimorphite bearing perhaps a hundred tiny fluorites. These were, first of all, interesting because of their internal zoned violet coloration. The crystal faces were nicely developed hexoctahedrons in combination with small cube faces. Whereas 6 cube faces can form a complete crystal, it requires 48 hexoctahedral ones to accomplish the same thing. The cost for all of this was 25¢.

Study how distortion can influence the presence or lack of a certain face or of faces or can change the habit of a whole crystal. Crystal drawings are of great help in visualizing how shapes are modified by faces of another form. Start with simple combination and then advance to more complex ones.

Chabazite #3 - V twin

Gradually learn the particular characteristics of twinned crystals, of hemihedral ones and of pseudomorphs. Study how some simple forms may be thought of as derived from a more complicated one. Thus, note drawings which demonstrate how a tetrahedron may be derived from an octahedron or a pyritohedron from a tetrahexahedron. A reference set of twins should be of considerable value in learning about them. The basic information for these foregoing subjects is well provided in the mineralogy texts. If you should ever get into the determination of interfacial angles by means of a goniometer, then of course single crystals are essential.

In summation, this has been a plea to you to study the crystallography of your specimens. Do-it-yourself procedures have been outlined briefly. The cost is only your time and a few micromount boxes. Your reporter would welcome reports from you members on how the methods work out in your individual cases.

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For those who could not attend the meeting last October in Forest Grove, Oregon, the elections brought George Williams in as our Chairman, Lee Kendall was retained as Secretary-Treasure-Editor and Rudy Tschernick continues as our Field Trip Chairman.

Dues were collected for the ensuing year (October 1971 to October 1972) at the rate of $2.00 per family. Those who have not paid are requested to do so/to retain their names on the membership and to continue receiving our NewsLetter. If you can't remember if you've paid, if your envelope with your newsletter was hand addressed you have not and if it is typed you are paid up.

We do have five new members to welcome, they are:

Hugh Aughey
1303 F. Street, S.E.
Auburn, Washington 98002

V. R. "Barney" Brawn
9004 Rosewood Drive
Sacramento, California 95826

Henry (Hank) and Martie Heikkola
8634 N.E. Boehmer
Portland, Oregon 97220

Les Holbrook
902 Mill Street
Snohomish, Washington 98290

George W. Shokal
2125 Carmelita Drive
San Carlos, California 94070

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On highway U.S. 101 At the north edge of Raymond turn west (if going north you will have just crossed a bridge when you turn left, going south turn right just before crossing the bridge). Follow route 13A toward Tokeland & Westport about 2 or 2½ miles, you will come to a road angling off to the right, follow this road for a short way, past a couple cross roads to the group of barn red buildings on your right. Heilman's place is the former Bales Army post and the buildings are long army barracks type buildings.