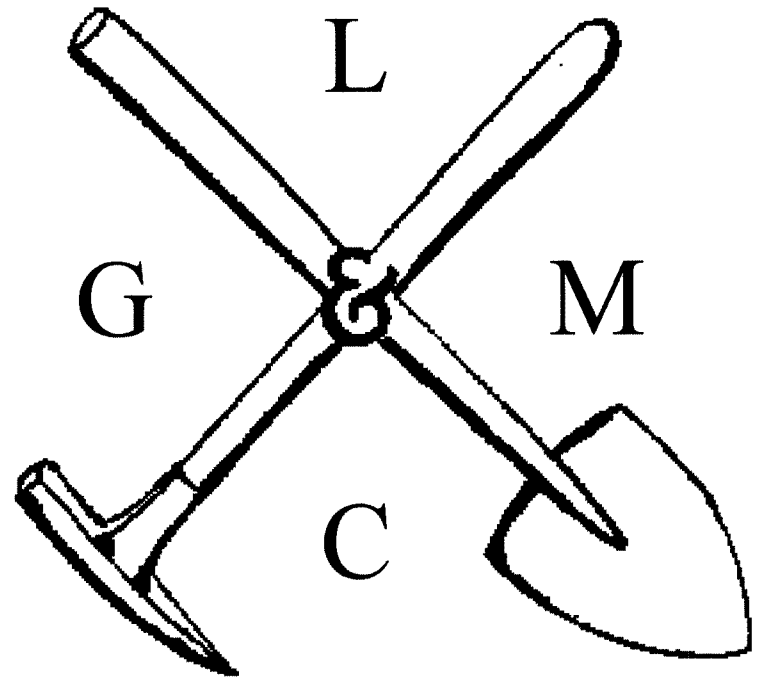


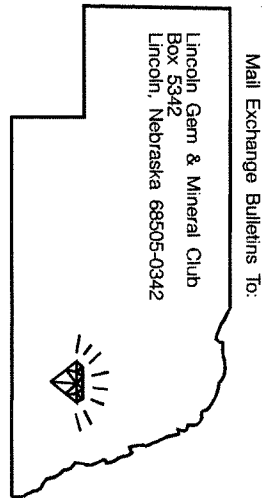
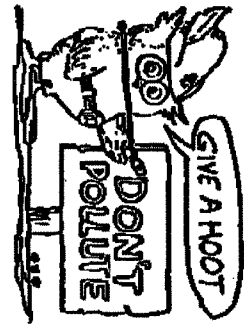
THE PICK & SHOVEL

January 2004



OFFICIAL PUBLICATION OF
LINCOLN GEM & MINERAL CLUB

LINCOLN, NEBRASKA



H. E. L. P.

Help Eliminate Litter Please

Associated with



Historian

CLUB EVENTS

- Jan.** 24 Swap, Antelope Park Shelter, 1-5PM. Pizza Party following SWAP, General Meeting at 7PM.
- Feb.** 3 Board Meeting, 7PM, 420 N. 56th St.
15 Geology Day, Pioneers Park 1-4PM
26 General Meeting, Antelope Park 7PM
- Mar.** 4 Board Meeting, 7PM, place to be announced
27 & 28, 46th Annual Show, "Those Golden Years", Pershing Auditorium (No General Meeting in March)
- Apr.** 6 Board Meeting, 7PM, place to be announced
22 General Meeting, Antelope Park, 7PM
- May** 6 Board Meeting, 7PM, place to be announced
27 General Meeting, Antelope Park, 7PM
- July** 18 Grinding Party, Pioneers Park 1-4PM

January 24, SWAP & Meeting

SWAP 1-5PM (see flier p. 8)

Pizza dinner delivered by Valentino's-5:30 PM (\$5/person)

General Meeting 7PM:

Program: The new program director, David Heffelbower announces *A Special Surprise* that is sure to be of interest to all club members.

Snacks: Enjoy Anniversary Cake and coffee as LGMC begins our 50th year as a club.

Regional Federation Shows

South Central

To Be Announced

Rocky Mountain

April 23-25, 2004- Wichita, K.S.

Midwest

April 23-25, 2004- Cedar Rapids, IA.

Combined California

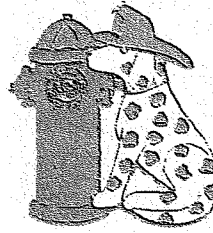
May 28-30, 2004- Mariposa, CA.

Eastern Federation/ AFMS

July 7-11, 2004- Syracuse, NY.

Northwest

July 23-25, 2004- Boise, ID.



PRESIDENT'S MESSAGE

Welcome to 2004, the 50th year of the club's existence. Join us at the January meeting to celebrate the beginning of the second 50 years. There are many new things in the club; a new lineup of officers, a new club trailer, and new people in some of the standing committees. We all need to work together to promote our hobby and club. New ideas are needed for bringing fun into the hobby and new members into the club. To start off the year, we have the January swap. Bring in your materials and your friends.

Now is the time to start planning your exhibit cases for the show in March. Also, please make time to help out during the show.

We are planning to have more field trips this year. We will have the Presidential Field Trip sometime this summer. The location and date will be announced later.

Don't forget Geology Day at Pioneers Park on February 15th.

If you would like to present a program at club meeting, or if you know of someone who would like to share their knowledge of an aspect of the hobby, please contact David Heffelbower for available club meeting dates.

Rock on!!!

James Marburger

REMINDER OF DUES!

Dues will be accepted at the January meeting or by mail. Payment can be sent to: Lincoln Gem & Mineral Club, PO Box 5342, Lincoln, NE. 68505. Dues are \$10 per adult (age 16 and over), \$2 per junior (age 12-16), and \$22 per family (husband, wife & resident children under age 16). Cost of Gem Palette, the State Association Publication (four issues/ year) is \$5 per household.



HAPPY
NEW
YEAR!



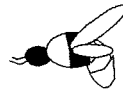
For Juniors
Salt Flower

- 1 object (clinker charcoal briquette or piece of coal, brick or sponge)
- 6 Tbsp. non-iodized Morton Salt
- 6 Tbsp. household bluing
- 6 Tbsp water
- 1 Tbsp ammonia

Mix the ingredients and pour over the object in a wide dish. When the object is saturated add colored ink or fabric dye or food coloring for effect.

Try several colors, unmixed. (Do not use Iodine.) Rub dish edges with petroleum jelly to prevent the flowering from growing over the side. Mix and add another recipe to continue growth. Keep flower moist.

How does it grow? The solution is absorbed by the object, then evaporates upon reaching the air, leaving the salt behind. The bluing is the key, as it causes salt to crystallize out of the corners and edges of other irregularly shaped crystals rather than on the sides of cubic crystals. (Gemrock, Dec. 2003)



WHAT'S THE BUZZ?
by Judy Reilly

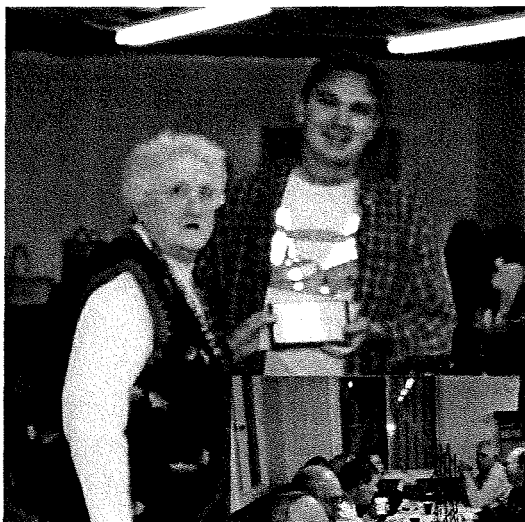
There's not much buzzing around that I know of. I guess no news is good news. ..at least when it comes to health issues.

A Lifetime Membership plaque was presented to Marie Taylor by 1st VP, Pat Akins at the December meeting (see picture below). Congratulations Marie! Roger Pabian, 2004 Show Chairman, and his committee members are gearing up for the 46th Annual LGMC Show. This year we are hosting the State Show. As usual, we will have great dealers and demonstrators. Now's the time to plan your display cases and gather materials for the silent auction! The MWF Show will be in Cedar Rapids, IA. this year. Susy McMahan will be our delegate to the meeting; Phyllis Parks will be her alternate. The show will be held in Cedar Rapids (see p. 8 for flier). This will be an exciting show...lot's of great field trips and other activities. It's an easy drive from Lincoln and, hopefully we'll have some lovely spring days.

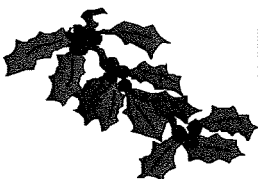
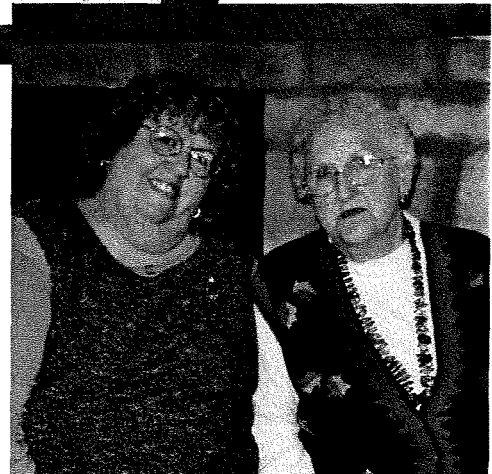
As always, I welcome any club news...

Judy

e-mail: queenbeejr2@aol.com



2003 Christmas Party
Photos by
James Marburger



LINCOLN GEM & MINERAL CLUB, INC. - BOARD OF DIRECTORS - Dec. 3, 2003
7:00 P.M. @ Kinkos, 48th & Vine Sts. - Conference Rm.

All Board members present except Pat Akins who had to work until 8 PM.
Guests were Sharon Marburger, John Harrison, Ed Ridge.

Pres. McMahan brought donuts for everyone since this would be her
last official Board Meeting as President. Thanks Susan.

Meeting called to order and a motion to approve Minutes by Jim
Marburger, 2nd by Jim Atkins. Motion carried.

Treasurer's report approved with motion by Jim Atkins, 2nd by Dave
Heffelbower. Motion carried.

Update on Christmas Party. Chairman, Ed Ridge indicated all plans
are coming together. John Harrison suggested that it would be
nice if everyone brought a couple of non-perishable items for Food
Bank. Board concurred. Calling committee set in motion.

From Who's Who - John H. call pgs 1 & 2. Judy R. call pgs 3 & 4.
Vera L. call pgs 5 & 6. Susan M. call pgs 7 & 8. Phyllis P. call
all new additions since print.

Each person also asked to bring their favorite rock find, purchase,
etc. and give a short synopsis of how they became involved in the
Rock Club.

Committee Reports:

MWF Steering - John Harrison, Chair The actual Show dates have been
changed from April to June 20-22, 2008. Reason being conflictions
with other Shows. At present Pershing is reserved, but also setting
up contingency plans, due to time elapse between now & then.

Trailer: Interior fix-up going well. If not completely ready by
end of month, will contract storage month by month.

Show; Roger Pabian, Chair not present, but reports 13 Dealers have
returned contracts.

Swap: Pat Akins, Chair January 24, 2004 Place reserved. Flyers
in Gem Palette. Silent Auctions. 4 ft. of table per Swapper.
Supper/Valentinos @ \$ 5.00 per person. Evening Meeting/Anniversary.

Anyone wishing to subscribe to the following; there will be a sign-
up sheet at the Christmas Party with prices.

MWF Newsletter - \$ 6.00 per year

AFMS Newsletter - \$ 3.50 per year

MWF Directory - \$ 2.70 one issue per year

Next Board Meeting for all returning/new Officers is JAN 5, 2004
7:00 P.M. at Kinkos, 48th & Vine. MONDAY

Deadline for Dec. Pick & Shovel is DEC. 10.

Meeting adjourned.

Respectfully submitted,

Vera Lyman
Vera Lyman, Secretary

LINCOLN GEM & MINERAL CLUB, INC. - GENERAL MEETING/CHRISTMAS PARTY
 December 7, 2003 @ Antelope Park Shelter 5-9:00 P.M.

28 Members & friends were in attendance along with Baby Gavin Dexter-Guy. Pres. Susan McMahan & newly elected 2nd Vice Roger Pabian were unable to attend due to illness. We wish them well.

1st Vice Pat Akins opened the Meeting by awarding Life Memberships to Marie Taylor & Roger Pabian; both long-time members of LGMC. Marie told of her experiences when she and Howard first joined the Club.

Minutes were approved as printed with motion by John Harrison, 2nd by Marilyn Stewart. Motion carried.

Treasurer's report approved as printed with motion by Marilyn Stewart. 2nd by Dave Heffelbower. Motion carried.

OLD BUSINESS: Storage Trailer is progressing nicely. Hope to have it ready by the first of the year.

Canned foods, etc. were brought for the food pantry. Anyone wishing to donate cash may do so. The leftover foods from supper were delivered to the City Mission.

In January when we have our annual SWAP, we will again bring food for the needy, to the Food Bank.

THANKS to everyone for the delicious dishes brought to the Supper. Everyone enjoyed!

A SPECIAL THANKS to Ed! He always makes sure we have a Christmas Tree, candles and luminaries.

NEW BUSINESS: The newly elected Board of Directors was introduced. Pres - Jim Marburger 1st Vice - Pat Akins 2nd Vice - Rober Pabian Sec - Sharon Marburger Treas - Vera Lyman 4 Members of Board - Jim Atkins, John Harrison, Dave Heffelbower, Judy Reilly.

THANKS - Phyllis Parks and Susan McMahan for your service, and our Best to you.

There being no further business, motion to adjourn by Jim Atkins, 2nd by Susan Taylor. Carried.

THE BEST OF HOLIDAY WISHES TO EACH AND EVERYONE AND
 A HAPPY, HEALTHY NEW YEAR!

Respectfully submitted,

Vera Lyman

Vera Lyman, Secretary

LGMC Treasurer's Report for December 2003
 Pinnacle Bank Checking Balance on Nov. 30,2003 \$ 4,611.96

December Receipts:

| | | |
|-------------------------------------|--------|--------|
| Membership dues for 2004 | 229.00 | |
| (suspense \$ 31.00 for Gem Palette) | 229.00 | 229.00 |

December Payments:

| | | |
|--|-------|--------|
| Kinkos-Board Mty 12/3 - 1 Hr. | 10.00 | |
| vera Lyman-Christmas Party Expense | 27.09 | |
| Kentucky Fried Chicken-Christmas Party | 57.75 | |
| Vera Lyman, Sec.-Treas. (2003) | 58.02 | |
| Postmaster-P O Box Rent 2004 | 68.00 | |
| Judy Reilly - Copy Dec P & S | 47.41 | 268.27 |

Pinnacle Checking Balance on December 31, 2003 \$ 4,572.69

Down the Drain, and Other Strange Places

By Lee Cowles

There's a rock quarry at a town named Drain in sort-of southern Oregon. Drain has a population of about 1300 people and lies nestled in the midst of an enormous evergreen forest. Some people regard Drain as a brisk, cosmopolitan metropolis; others, who may stumble across Drain while lost, may feel as though they have strayed into a "twilight zone" void. As for my son, Leein, and me, we wanted more. We wanted cavities in rocks, or vugs, filled with crystals of fortune and glory.

The three hour drive to Drain was filled with mostly-tasteful commentaries about the personal fortitude a Drain resident must have to announce to non-locals the picturesque name of their hometown. A basalt quarry not far from town was the goal for the first part of the day.

A portion of the quarry is filled with many vugs of zeolite family minerals and a few other species. However, one also sees a classic example of the fact that God has a sense of humor. Several of the minerals from this quarry must be removed within days of exposure to the world, or they will be destroyed by either man or nature. For example, mesolite is a hair-like, two-inch long, pure white mineral that exists in clusters that line the rock cavities, sort of sticking up like a white, punk-rock hairstyle in a hunk of basalt. But one day of direct rain on the mesolite hairs and they are matted and worthless. Mesolite also has the inexplicable ability to warp a collector's mind so that he is driven relentless to touch the hairs to see if they are real. Touching destroys them.

Leein, age 12 at the time, helped me scout a recently blasted area where we found many open, mineral lined cavities lying around. Of course, anything exposed to the rain had been flattened and sullied and now had a close resemblance to very dirty beige socks. Some of the vugs were as large as a football, and we merely had to find some unbroken vugs of our own. Working in a heavy drizzle, we grabbed our hammers and chisels and attacked some likely looking rocks. We felt certain we could break open any boulder.

In retrospect, I predict that someday this quarry will be mined for precious gems. To be so ludicrously hard,

this basalt must be laced with little micro-diamonds. Leein kept laughing at me as I took a seemingly powerful swat at a rock, only to have my hammer and myself bounce backward about three feet without making so much as a scratch in the rock.

After an hour of chiseling, mixed with less-tasteful muttering, I was able to start a crack and eventually wedge the rock open. Happy day! The vug was about the size of a baseball, but was dry and empty. Meanwhile, Leein had begun uncovering smaller rocks that looked like great candidate. Each had an open vug on the bottom side, both non-weathered. His find corresponds with one of my favorite theories that kids find better specimens because they're closer to the ground.

Vug number one was the size of a softball and completely lined with one and one-half inch mesolite hairs, some stained golden brown. The top of the vug was gone, but a good two-thirds of it remained. But now enters Murphy's Law of rock hounding: that is, the better the specimen the greater the odd that trying to chisel the specimen from the matrix of surrounding rock will result in a totally disastrous fracture through the center of the specimen. Radiating cracks through the remainder of the specimen will compound the fracture if the specimen is particularly of high quality.

After destroying the first vug, we started on vug number two, which was on the underside of a boulder bigger than I. The crystals were sticking out on a finger of rock near the bottom of the boulder, but about a foot off the floor. Leein squirreled his way under the boulder and pounded on the rock, but he gave up in a suspiciously short time. After several minutes of body twisting and limbering that would have been appropriate for Jane Fonda's workout tape, I crawled under the boulder and started work. I had been chiseling upside down (the only way I could squish myself into such a little space) when it became apparent that I was going to be able to chisel the mineral off the matrix only to have them fall straight down onto some rocks below. Working as a team, Leein held the specimen's base while I gave the matrix the final chops. We were rewarded with a beautiful two inch, cone-shaped, white calcite crystal with one inch clear mesolite crystals sprinkled all over the base and the calcite.

(Continued page 4)

(Continued from page 3)

We spent the next four hours with my hammering like crazy, getting to a vug, and both of us using our you-grab-it-while-I-chisel-it-off technique. It was a fun and unique form of collecting as we jockeyed for position and swung amongst the boulders, frogs, and small critters, wet and dry minerals, and about 2000 spiders.

One section of the mineralized zone had the appearance of stair steps leading about half way up the 75 foot quarry wall. But rain and crumbling rock gave those steps the ominous look of unsafe climbing territory, a situation we had discussed somewhat upon our first arrival. Now, there is one special mode of motivation that will allow a kid to do any task in the world--tell him he can go anywhere except for some particular area, and he'll find a way to do it. After Leein's announcement that the climb was fairly easy and that I should drag myself up, I agreed.

Actually, my reason for going up was to help him safely down and to have a gentle, fatherly, heart-to-heart sharing time with him (I was going to yell, and kick and scream). Unfortunately, by the time I managed to crawl up the last ledge, I was so breathless that I didn't have the energy to blow out a candle. Why is youthful strength wasted on the young?

Then the real reason for his coaxing me up to the ledge came out. Leein had broken open some small rocks with one inch vugs filled with small, bladed, pink crystals covered with little pink hair. The blades were about one quarter inch high with hairs about the same length. Their coloring and delicacy were breathtaking. Besides, the basalt here was much less protective of its vuggy secrets, and we quickly collected as much as we could carry.

As often happens when I go collecting, I didn't have a clue as to what sort of mineral we were picking up. Of course, Leein was ready to proclaim it as a new mineral and have his name attached to it forever. Later we learned that it was an unusual variety of thomsonite, a zeolite that normally appears as white balls.

On our climb down the ledges I chanced to look up and see a vug of salmon colored crystals. Dropping my backpack and tools, I scaled up the wall to see inside the vug. Brazen courage, or blatant stupidity, makes rockhounds willing to do strange things. Probably no one else was crazy enough to look at the vug while holding on for dear life to nearby rocks 40 feet above the quarry floor. Inside the vug was a complete, six inch

wall of perhaps the rarest mineral at Drain, the zeolite laumontite.

Laumontite, a rather boring-looking mineral, is shaped like a reed of grass colored orange to white. We were able, with a little luck and absolutely no regard for personal safety, to gather several clusters and a few single, one inch long crystals. Actually, I chickened out of the gathering, and Leein, who climbs better than most of the monkeys I've seen on TV's National Geographic, carefully excavated the vug while I nervously held his legs in position. I wasn't worried about his falling and getting hurt--except that I'd have to answer to my wife later on!

Laumontite is another one of those heavenly-humorous minerals. As much as mesolite hates to get wet, Laumontite relishes in moisture. In fact, the greatest frustration in dealing with this little jewel is that it dries out and turns to powder if not kept humid. We solved the problem by spraying each of our specimens with Vsrsthsane, and they've kept well for over two years.

The Drain experience proved to be incredibly fun for my son and me. We obtained lots of mesolite, five zeolite, some nice calcites, and two other unfamiliar minerals.

I Want to Be a Bear

In my next life...I wanna be a female bear. If you're a bear, you get to hibernate. You do nothing but sleep for six months. I could deal with that.

Before you hibernate, you're supposed to eat yourself stupid. I could deal with that, too.

If you're a bear you birth your children (who are the size of walnuts) while you're sleeping and wake to partially grown, cute, cuddly cubs. I could deal with that.

If you're a mama bear, everyone knows you mean business. You swat anyone who bothers your cubs. If your cubs are out of line, you swat them, too. I could deal with that.

If you're a female bear, your mate EXPECTS you to wake up growling. He EXPECTS that you will have hairy legs and excess body fat.

Yup...I wanna be a bear!!!

FEDERATION NEWS

AFMS Newsletter, Dec.,2003

Your Help Is Needed

from Wendell Mohr, AFMS Commemorative Stamps Committee

The American Federation of Mineralogical Societies has an ongoing goal of having subjects of interest appear on commemorative stamps. Currently we are attempting to get gemstones on stamps.

The 2003 United States 50 State Quarters program features a faceted diamond gemstone on the Arkansas 25 cent piece. Collect these and also support gemstones on stamps too!

We need YOU to actively support and promote the project by sending letters to the USPS. You do not have to be an AFMS member to write, so encourage your friends and relatives to get involved too. Letters or petitions for stamp subjects should be sent to:

The Citizens Stamp Advisory Committee
c/o Stamp Development
U.S. Postal Service
475 L'Enfant Plaza SW, Room 5670
Washington, D.C. 20260-2437

In your letter, be sure to tell the committee, in your own words, how you would like to see a series of gemstones on stamps issued. (There have never been gemstones on U.S. issued stamps.)

Thanks for your assistance. With your help, we CAN make this happen!

AFMS Rockhound of the Year

from Bonnie Glissman

With the new year beginning, NOW is a good time to make a resolution to select an individual or couple to be your "Rockhound of the Year." Surely every AFMS affiliated club has at least one person to brag about. Why not share the good news that this person is your member with the rest of us? Simply tell us, in 50 words or less, why this person is important to your club. Send your information to me or to your regional representative and we'll see that it is printed in a future AFMS newsletter. I'm looking forward to hearing about your club's MVP. (Edited for space.)

MWF Newsletter, Jan., 2004

How It All Got Started...

There seems to be some question as to the "purpose" of the MWF endowment fund, and the reason it was established. As Paul Harvey would say..."And this is the rest of the story." Well, "This is the story".

The MWF has received a large amount of money from one of the conventions that had been held, and the money was being spent with little regard to the future. When I became the treasurer in 1982, there was only a little over \$15,000 in the treasury, and at that time, the yearly expenses were above \$5000, which meant that in three year's time the MWF would be BROKE.

The executive board felt there must be some way to add to the support of the MWF. Past President, Rex Webb, appointed me, Kitty Starbuck, Treasurer, to head up a "Ways and Means" Committee to work on this problem. Taking a clue from the AFMS, we decided to launch an Endowment Fund in March, 1985.

In your Operations Procedure Manual explains the "purpose" of the fund. That is, "THE ENDOWMENT FUND SHALL DEVELOP A SEPARATE PERPETUAL FUND TO PROVIDE ADDITIONAL FUNDS FOR THE STATED GOALS OF THE FEDERATION." In the OP on page 18, Item 3, Paragraph 2 states : "Only the earnings from the account may be used for projects approved by the MWF Board of Directors and ratified by a 2/3 vote of those present and voting at an Executive Committee Meeting. Costs of goods for fund raising activities WILL NOT be paid from the funds principal. All administrative costs will be paid from the earnings of the fund. INTEREST SHALL NOT BECOME PART OF THE PRINCIPAL.

The Quiz Booklet and the 2003 AFMS Winning Articles Booklet were funded by the Endowment Fund Interest.

And for the whole story about your endowment fund, please read pages 17-18 in your Operations/Procedure Manual . (Edited for space.)

General Rotary Tumbler Instructions

The tumbler will be running 24 hours a day for several weeks at a time, and needs to be in a convenient and safe location that will not interfere with family activities. It generates a slight humming sound. The motor becomes hot to the touch. This is normal.

1. Make it accessible. You will need to open it from time to time.

2 Place it near a power outlet. It must be located in an open area that is away from any flammable materials. **DO NOT USE THE TUMBLERS OUTDOORS.**

3. Do not put the tumbler on a table or other smooth surfaces. The vibration of the unit may cause the tumbler to crawl. A safe location is a concrete floor, such as in the garage or basement.

4. Do not put it in a confined space as it needs air movement for cooling the motor.

5. Do not let it freeze.

6. It is possible for the barrel to break open and spill. Make sure the location is safe for that possibility.

Check the tumbler on a regular basis to make sure the unit is running properly, is not over heating, and that the barrel is not has leaking.

Proper amount of material is needed to load the tumbler. Use a variety of sizes of the stones. Your barrel will need to be loaded about ¾ full of rock. A larger size rock may be tumbled but you must have all sizes of rock in the tumbler. About 1/3 of the load needs to be small size (1/4 to 1/2 inch in diameter). In small tumblers, a 1 inch stone is considered a large stone. The final output of the tumbler will be 25 to 35 percent less in volume than what it started with.

If you do not have small size stone a filler material can be substituted. This filler material can be broken TEMPERED GLASS. This glass can be found in the side and rear windows of a car. NOT THE WINDSHIELD. This glass can also be found at a auto glass replacement shop.

The amount of silicon carbide abrasive needed will depend on the size of tumbler you are working with. Weigh the stones (and glass if used) that will fill the barrel to about ¾ full. Then figure the amount of abrasive that is needed.

Rotary Barrel Tumblers use about 1½ to 2 ounces abrasive to 1 pound of material. OR about 1 to 1½ tablespoons of grit per pound.

Economical ungraded grits may be used. They usually are 60-90 coarse, 120-220 medium, and 400-f fine abrasives.

The tumbler grinding steps sometimes produces a "GAS" which at the right conditions will pop the lid off. To eliminate the gas you can add a "Tums" or a teaspoon of baking soda with the grit. (Do not add to the polish)

There are many types of polish that can be used. Generally talk with the rock dealers that sell tumbling supplies and tumble for their recommendations on what polish is the best for the materials being tumbled.

LETS GO TUMBLING

Step 1. To load a tumbler barrel, add the correct graded rough rock to about ¾ full, add the grit, and add water so it covers the rock by about ½ inch and seal the barrel.

Step 2. Place the barrel on the rollers and turn on the tumbler. Make sure that the barrel is turning and running quietly – with no squeaks or groans. Check the tumbler periodically to assure that it is operating and not leaking.

Step 3. The tumbler needs to run for 7 to 10 days (in some cases more time is needed for hard rock), 24 hours a day. The load may be checked to see how much rounding is taking place. This depends on the material being tumbled. Soft materials need less run time than does hard materials like agate, jaspers, and petrified wood. If the barrel is opened the seals of the barrel need to be cleaned before reassembly.

Step 4. Pour off the water and grit (slurry) into a disposable container (milk carton). A plastic colander or plastic window screen can be used to retain the stones. Wash and rinse the stones and barrel in a bucket of water. Do not pour the slurry or wash water in your home plumbing system as it will plug traps When changing grits and polish, rinse well. Dispose of the slurry it can not be reused.

Step 5. Place the stones back in the barrel with water to ½ inch above the rock and add some "IVORY" BAR SOAP. A chunk of soap maybe ½ X ½ inch in a small tumbler (1 to 3 pound) up to ¼ bar of soap in a 12 pound tumbler. The amount is not critical. Place the barrel back on the tumbler for 4 to 6 hours. Then drain and rinse off the stones again. This process will clean both rocks and the barrel, removing leftover grit, now you can go on to the next step.

(continued p.7)

(continued from p. 6)

Step 6. Place the stones back in the barrel with water to ½ inch above the rock and add the second grit. (120 – 220 grit). Seal the barrel and make sure the tumbler is operating correctly. This second grit will also run for 7 to 10 days (or more).

Repeat Steps 4 and 5.

Step 7. Place the stones back in the barrel with water to ½ inch above the rock and add the third grit. (400-fine grit). Seal the barrel and make sure the tumbler is operating correctly. This third grit will run for 7 to 10 days (or more), just like the previous two grits.

Repeat Steps 4 and 5. (RUN THE WASH FOR 12 HOURS THIS WILL REMOVE THE LEFTOVER GRIT BEFORE THE POLISH STEP. Be sure to thoroughly rinse. It is critical to have no grit remaining in the barrel or on the stones.)

Step 8. Place the stones back in the barrel with water to ½ inch above the rock and add the polish. The amount of polish powder is the same as grit. Seal the barrel and make sure the tumbler is operating correctly. The polish will run for 7 days. A thickening agent may be added to the water if soft stones are being polished. This thickening agent is sugar or corn syrup. The amount added will be twice as much sugar as polish.

Repeat Steps 4 and 5

At this time your stones should be polished.

Sometimes a Burnishing Run will improve the polish. This is an extra step with the use of powdered soap such as "IVORY" or "WHITE KING" in the same amount as the polish step 8. but run it for 4 days. Then wash and rinse them. DO NOT USE LIQUID DETERGENTS OR DISHWASHER POWDERS THAT HAVE BLEACH IN THEM.

GENERAL VIBRATORY TUMBLER INSTRUCTIONS

In a vibratory tumbler material loss is much less than a rotary tumbler. About 10 to 15 percent loss and the stones will be angular but polished. For the most part the procedures are the same as a rotary tumbler except for time, water, and the amount of grit used will be slightly less. About 1 ounce of grit per pound of material or 1 tablespoon per pound. The amount of water is much less. Use only enough water to achieve a good tumbling action. Too much water and the tumbling action will stop and the grit will settle out. Daily checks on the tumbler is a must. Since the slurry will thicken faster, more water need to be added.

. Run time is also much less. This depends on the hardness of the material being tumbled. Generally 2 to 3 days per grit will produce polished stones. On the daily check of the tumbler for the amount of water it gives you time to pull out 2 or 3 stones and wash them to check on how much material has been removed and if they are smooth enough to continue on in the next grit. Longer run times than 3 days will start to give a more rounded surface on the stones. The wash cycles in Steps 4 and 5 above are very important. The amount of water needed for a wash is the amount that produces bubbles with the soap.

In both methods of tumbling keeping a good record of what is done will help with correcting any problem that arise. Many variations of the general instructions are done. Discussions with other rock hounds or lapidary shops are helpful to correct problems in the art of tumbling stones. More advanced methods are available on the internet or book stores.

By James Marburger and John Harrison

Interesting Tidbits

Frosted Glass:

Dissolve Epsom Salts (magnesium sulfate) in a pot of boiling water until no more will dissolve. Brush a small amount of the liquid onto a window. The liquid will quickly evaporate, leaving behind a film of big delicate crystals. Really!

(Breccia, December, 2003)

Disposable Diapers For Rockhounds?

Use disposable diapers (the cheapest kind) to protect carvings or minerals in transit. They come with their own fastening tapes, can be used over and over again, and are good cushioning for fragile materials.

(Pegmatite, Jan., 2004 via Golden Spike News 6/03, via Quarry Quips 10/03)

To Reclaim Cutting Oil:

Put the oil in a milk carton, add a small amount of water, let the sludge settle for a few days, then put it into a freezer. The water will freeze and the oil will rise to the top. Pour the oil off!

(Achates 12/03 via Agate Explorer 12/03 via Rockchips 11/03)

Those Golden Years

Lincoln Gem & Mineral Club

Celebrating 50 Years!

46th Annual Show



Displays, Fossils, Working Exhibits,
Gem Dig, Beads, Dealers, Programs,
Minerals, Jewelry, Door Prizes,
Family Activities!

March 27 - 28, 2004

Lincoln, Nebraska

Pershing Auditorium

Between M Street and N Street on 15th

Admission: Adults - \$4.00, Children Under 12 - Free with Adult

Two Day Pass - \$8.00

Hours Saturday 9:00 AM to 6:00 PM

Sunday 10:00 AM to 5:00 PM

\$1 OFF

Bring This Coupon
or Newspaper Ad.

46th Annual Show

All Adult Admissions to the Show!

Cedar Valley Rocks & Minerals Society
Presents
its 2004
GEM, MINERAL & FOSSIL SHOW
Hosting the
MIDWEST FEDERATION SHOW & CONVENTION

Friday, April 23 - 10:00 a.m. to 6:00 p.m.
Saturday, April 24 - 8:30 a.m. to 6:00 p.m.
Sunday, April 25 - 9:30 a.m. to 5:00 p.m.

SPECIAL EXHIBITS

Hawkeye Downs
4400 6th Street SW
Cedar Rapids, Iowa

SPECIAL NEW LOCATION

DINOS AND MORE IN 2004

PROGRAMS
Variety of Topics
Call ahead or check our web site for Names & Times

DEMONSTRATIONS
Casting Dinosaur Footprints
Tumbling, Faceting
Glass Bead Making
Cabbing, Beading
Silversmithing
Fluorescents
Flint Knapping
Marble Making
Geode Cracking

PEBBLE PIT FOR KIDS
1¢, 5¢, 10¢, 25¢, & 50¢ Items
50¢ Rock & Mineral Kits

SILENT AUCTION
Geodes, Minerals, Crystals, etc.

HOT FOOD

PROFITS GO TO SCHOLARSHIPS

DISPLAYS
T-rex (Field Museum)
Antarctic Dinosaur (Augustana)
Nanotyrannus (Burpee Mus.)
Mammoth Skull
Other Fossils
Crystals
Spheres
Agates
Geodes
Minerals
Petrified Wood
Polished Stones

NOT RESPONSIBLE FOR ACCIDENTS

DONATIONS
Adults \$2.00
Students 50¢
(12-18)
Children Free
(Under 12)
Youth Groups Free
(w/adult)

CHILDREN MUST BE ACCOMPANIED BY AN ADULT

MANY DEALER ITEMS FOR SALE INCLUDE:
Books Fossils Jewelry Minerals Gem Prospecting
Opal Carvings Meteorites Artifacts Petrified Wood
Agates Geodes Crystals Tumblers Lapidary Equip.
Gems Marbles Spheres Book Ends Jewelry Findings

For Additional Information, Contact:
Sharon Sonneitner (319-396-4016, sonnb@aol.com); Marvin Houg (319-395-0577, m.houg@yahoo.com)
or Tom Whitlatch (319-362-0684, whitlatch@mchsi.com)
For Program, Dealer, and Show updates, go to: www.angelfire.com/ia3/cvrms (all lower case)

Lincoln Gem and Mineral Club

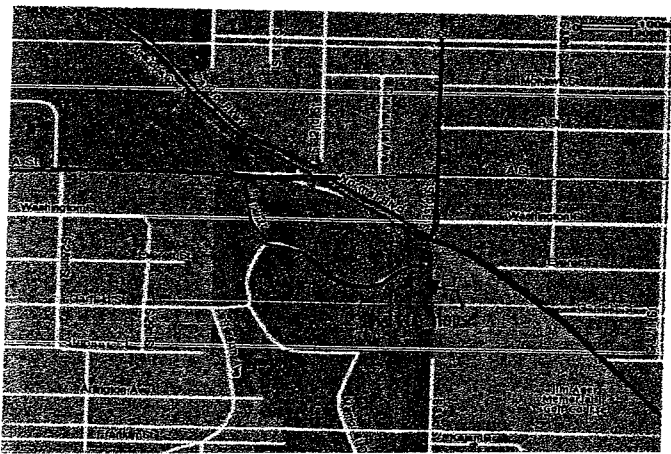
Proudly Presents
Its

**26th Annual
Gem and Mineral Swap**

Saturday January 24th, 2004

Hours: 1:00 P.M. to 5:00 P.M.

Location: Antelope Park Shelter House
(Same place as last year)



All buyers must use
Swapper Bucks
Available at the door.

Buy, Sell, or trade: Rocks, Minerals, Fossils, Finished Gemstones, Rough Gemstones, Crystals, Beads, Books, Equipment, Supplies and any other gem and mineral related materials.

Admission: Swappers with tables should provide materials for silent auctions. Proceeds go to the Lincoln Gem and Mineral Club's Lapidary Education Fund.

The swap will be followed by the general meeting of the Lincoln Gem and Mineral Club at 7:30 P.M. Visitors are welcome to both events.

2004 ELECTED OFFICERS

| | | | | | |
|----------------------------|--------------------|------------------------------|-------------|-------|---------------|
| President | James Marburger | 332 Locust | Hickman, NE | 68372 | 792-2348 |
| 1 st Vice Pres. | Pat Akins, Jr. | 5017 No. 6 th St. | Lincoln, NE | 68521 | 477-1322 |
| 2 nd Vice Pres. | Roger K. Pabian | 5301 X Street | Lincoln, NE | 68504 | 465-0144 |
| Treasurer | Vera Lyman, | 420 N. 56th St. | Lincoln, NE | 68504 | 464-6089 |
| Secretary: | Sharon Marburger | 332 Locust | Hickman, NE | 68372 | 792-2348 |
| Board Member | David Heffelbower, | 1819 Washington St. | Lincoln, NE | 68502 | cell 890-2794 |
| Board Member | James Atkins | 3028 So. 35th St. | Lincoln, NE | 68506 | 483-1610 |
| Board Member | John Harrison | 330 Locust | Hickman, NE | 68372 | 792-2337 |
| Board Member | Judy Reilly | 4050 Worthington Ave | Lincoln, NE | 68502 | 421-3064 |

Nominating Committee

| | |
|---------|---------------------------------|
| 3 years | Mary Pittard Phyllis N Parks |
| 2 years | Amy Dexter-Guy Edward Ridge |
| 1 year | John Harrison Aulden Stewart |

Chairman-Immediate Past President Susan McMahan

Long Range Planning & BY-Laws Committee

| | |
|---------|------------------------------------|
| 3 years | Daniel Dexter-Guy Phyllis Parks |
| 2 years | Susan Taylor Edward Ridge |
| 1 year | Vera M. Lyman Roger K. Pabian |

Standing Committees

| | | | |
|---|--|-----------------|------------------|
| Education / Librarian | Roger Pabian | MWF Liaison: | Vera Lyman |
| Field Trips: | Pat Akins, Coordinator | Scholarship: | Vera Lyman |
| Historian: | Susy McMahan | Christmas Party | Edward Ridge |
| Membership Record: | Edward Ridge | 2005 Show: | John E. Harrison |
| Programs: | David Heffelbower | 2004 Show: | Roger Pabian |
| Property: | Pat Akins, Jr. & James Marburger | 2005 Swap | Roger Pittard |
| Youth Activities: | Kay Jurgens & Susy McMahan | 2004 Swap: | Pat Akins, Jr. |
| Refreshments/Door Prizes | Judy Reilly | | |
| Housing Committee: | Susy McMahan, Pat Akins, Charles Wooldridge & Vera Lyman | | |
| Auditing Committee: | John Harrison, Roger Pabian, James Marburger | | |
| Geology Day Coordinator : 2nd Vice President | | | |

L. G. M. C. web address—courtesy of Jim Atkins:

<http://incolor.inetnebr.com/jna/gemclub/lgmc.htm>

Your PICK & SHOVEL Staff

| | |
|---------------------------|---|
| Publisher: | Lincoln Gem & Mineral Club, Inc., P.O. Box 5342, Lincoln, NE 68505-0342 |
| Editor: | Judy Reilly, 421-3064 4050 Worthington, Ave., Lincoln, NE 68502, |
| Circulation: | Phyllis N. Parks 476-6798 |
| Business Reporter: | Vera Lyman 464-6089 |
| News Reporters: | All Club Members |

The *PICK & SHOVEL* is the official publication of the Lincoln Gem & Mineral Club, Lincoln, Nebraska. Articles and items appearing within may be reproduced in other club bulletins, provided proper credit is given to the *PICK & SHOVEL* and the author and that a reprint of the bulletin is sent to the editor of the *PICK & SHOVEL*.

The purpose of this corporation shall be to study, promote an interest in, and disseminate knowledge of lapidary and various Earth Sciences including but not necessarily limited to geology, paleontology and mineralogy. It shall be a particular purpose of the corporation to provide education in these fields to its members and the general public, especially to youth and student groups.

J. J. & L. ROCKS and MINERALS

COME SEE US FOR YOUR ROUGH NEEDS !

GEMS - CABS - SLABS - MOUNTINGS
STERLING SILVER - GOLD FILLED - 14K GOLD
SILVER SUPPLIES - TOOLS - MACHINERY - NEW AND USED
CUSTOM SERVICES FOR SLABS, FLAT LAPPING, AND CABOCHONS

STARTING OUR 29th YEAR

330 LOCUST
HICKMAN, NE 68372-0068

PHONE
402-792-2337

"PROVIDING SUPPLIES FOR THE NOVICE TO THE DISCRIMINATING ROCKHOUND"
Please Call for Appointment

LINCOLN GEM & MINERAL CLUB
hosts our

46th Annual Show
and
The Nebraska State Show for 2004

PERSHING MUNICIPAL AUDITORIUM
March 27 - 28, 2004

"THOSE GOLDEN YEARS"

Show Chairman - Roger Pabian

Advertising by rock-hobby business or interest is permitted with the approval of the Board. The rate now set at \$15.00 per full page; \$7.50 per 1/2 page; \$5.00 per 1/3 page; and \$3.75 per 1/4 page(min) per issue, paid in advance. These ads will be placed through the bulletin as space permits.

Subscription to the Pick & Shovel is \$10.00 per year mailed.

Dues to Lincoln Gem & Mineral Club are as follows:

Adults (age 16 and over) \$10 per year Juniors (age 12 to 16) \$2 per year

Family Membership (Couple, resident children under age 16) \$22 per year

New memberships must be approved by the Board, after the applicant attends at least one meeting of the club and pays the above dues plus a \$5 registration fee.

Meetings: Fourth Thursday, Sept. through May except December & January dates will be announced. Meetings held at Antelope Park Indoor Shelter, near 30th and Sumner, next to the Veterans Memorial and the children's playground.