



THE  
TULIP CITY  
CONGLOMERATE



Bulletin of the Tulip City Gem & Mineral Club, PO Box 2082, Holland, Michigan

Website: [Tulipcity.org](http://Tulipcity.org)

October 2011

Volume 44, Edition 10

# Silent Auction

Wednesday, October 26<sup>th</sup> at Hope College - Schaap Science Center

See Directions on page 3

Set-up will begin at 6:30pm...Meeting to begin at 7:15pm

- ✓ All Specimens must be accompanied with an "Official" Auction Slip. You may prepare for this ahead of time by printing off the Silent Auction bid slip from [www.tulipcity.org](http://www.tulipcity.org) under Club Information. Slips will also be available at the meeting.
- ✓ Make sure your name and specimen identity is on the bid slip.
- ✓ No Club percentage will be deducted. Set a fair and reasonable price for best results.
- ✓ Money will be exchanged between buyer and seller, so be prepared to make change.
- ✓ It would be nice if you could also bring an item priced for our Junior's to bid on. Write "Juniors Only" at the top of the bid slip.



## PRESIDENT'S MESSAGE, by Dave Nienhuis

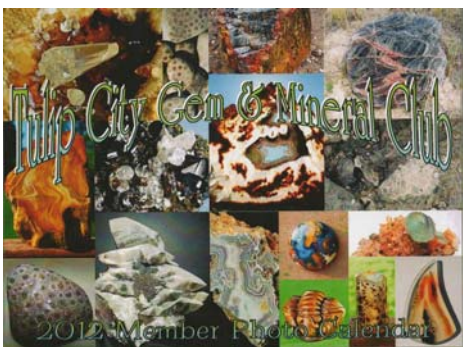
We will have some special items at the Silent Auction from Gordon Boone's collection. To mention a few items: a saw combination unit, UV lamp short and long wave, rocks and minerals. So bring your own items to sell and be ready to buy a few treasures!

Please consider joining the board by filling one of the open positions. Each position is a key component in the function of the club, and we offer on the job training for free.

Lastly, "Thank you" to Chet Smith on the great idea for a club calendar!



You may bring a treat or refreshment to share!



## Club calendars are available!

Club members submitted over 100 photos for the photo contest and the top photos are represented in this 16 month calendar!

We sold 36 at our September show and now have 52 remaining to sell. This is a great gift for \$12 each! They will be available at meetings, or contact Chris Cooper, Director at Large, at [kayakno1@yahoo.com](mailto:kayakno1@yahoo.com).

Thank you to Chris Cooper and Cindy Root for your work on the calendar, and to Jon Mull for a great job in creating the layout!

**BOARD OF DIRECTORS**

President	Dave Nienhuis	<a href="mailto:dpnienhu@sbcglobal.net">dpnienhu@sbcglobal.net</a>
Vice President	Jon Mull	<a href="mailto:solace247@yahoo.com">solace247@yahoo.com</a>
Secretary	Kathy Steffler	<a href="mailto:ksteffler@hughes.net">ksteffler@hughes.net</a>
Treasurer	Rebecca Cistaro	<a href="mailto:r4squares@charter.net">r4squares@charter.net</a>
Past President	Cindy Root	<a href="mailto:d-root@sbcglobal.net">d-root@sbcglobal.net</a>
Directors at Large	Chris Cooper Trudy Fetters	<a href="mailto:kayakno1@yahoo.com">kayakno1@yahoo.com</a> <a href="mailto:diggerdog@chartermi.net">diggerdog@chartermi.net</a>
Field Trip Chair	Bob Sherwood	<a href="mailto:bobandjulia@accn.org">bobandjulia@accn.org</a>
Historian	Betty Hoekstra	<a href="mailto:kbhoek@att.net">kbhoek@att.net</a>
Jr. Club Co-Chair	Rick Smith Linda Winklemann	<a href="mailto:smithr@hope.edu">smithr@hope.edu</a> <a href="mailto:lindawinklemann@att.net">lindawinklemann@att.net</a>
Liaison	Julia Sherwood	<a href="mailto:bobandjulia@accn.org">bobandjulia@accn.org</a>
Membership Chair	Shari Luttikhuizen	<a href="mailto:sluttikh@oaisd.org">sluttikh@oaisd.org</a>
Newsletter Editor	Karri Nienhuis	<a href="mailto:dpnienhu@sbcglobal.net">dpnienhu@sbcglobal.net</a>
Show Chair	Patti Valentine	<a href="mailto:valentineoak@hotmail.com">valentineoak@hotmail.com</a>
Social Chair	Esther Kirkendall	<a href="mailto:ekirken@yahoo.com">ekirken@yahoo.com</a>

**NOVEMBER BIRTHDAYS**Birthstone: **Topaz**

11/2	Esther Kirkendall
11/2	Lesa Simonds
11/06	Dave Fetters
11/7	Merridy Jeffery
11/10	Louis DuPont
11/11	Nathan Moored
11/14	Andrew Silva
11/15	Jenna DuPont
11/16	Jackson Sanford
11/17	Karen Hamlin
11/19	Michael Hancock
11/20	Maddie Moored
11/20	Leah Wallar
11/23	John Keefer
11/23	Helen Mantooth
11/27	Tasman Mattox
11/28	Fec Mattox
11/29	Mark Cistaro
11/30	Paul Damato

**NOVEMBER ANNIVERSARIES**

11/6	Rance & Anne Westover
11/17	Stephen & Karen Hamlin

**BOARD OF DIRECTOR NOMINEES FOR 2012**

President	Dave Nienhuis
Vice President	Jon Mull
Secretary	Open
Treasurer	Open
Directors at Large	Chris Cooper Open
Field Trip Coordinator	Bob Sherwood
Historian	Betty Hoekstra
Jr. Club Co-Chair	Rick Smith Linda Winklemann
Liaison	Esther Kirkendall
Membership Coordinator	Shari Luttikhuizen
Newsletter Editor	Karri Nienhuis
Social Chair	Open
Show Chair	Rolland Malone

Nominating Committee: Cindy Root,  
Rolland Malone, Deb Smith

If you would like to volunteer, or suggest a person for the 2011 Board, please contact Cindy Root: [d-root@sbcglobal.net](mailto:d-root@sbcglobal.net).

**? October Question of the Month?**

The below agate is the oldest on earth.

What type of agate is it?



Hint: The name and location are the same.

When you arrive at the General Meeting; write the answer and your name on a piece of paper (found near entrance of the auditorium) for your chance to win a prize.



See below for Hope campus map and parking  
 Hope College - Schaap Science Center,  
 College and 12<sup>th</sup> street, Holland, MI

October 26<sup>th</sup> - General Meeting  
 SILENT AUCTION

Set-up 6:30pm to begin at 7:15pm  
 Hope College - Schaap Science Center



November 16<sup>th</sup> - Board Meeting 7pm  
 Howard Miller Community Center, Zeeland  
 East Activity Room

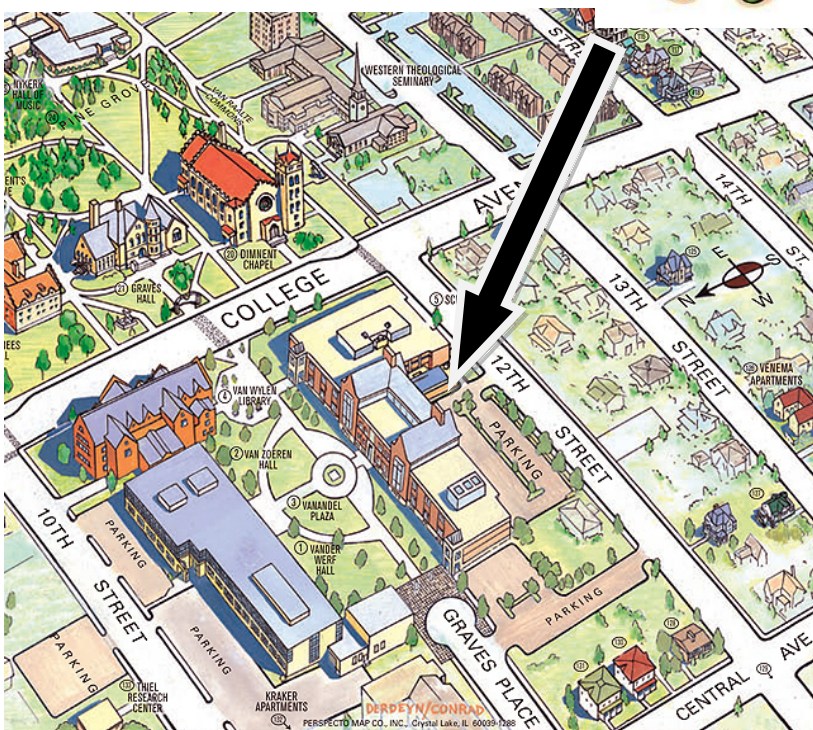
November 30<sup>th</sup> - General Meeting  
 Elections & Utah Field Trip Presentation  
 Howard Miller Community Center,  
 Zeeland

December 7<sup>th</sup> - Board Meeting 7pm  
 Location TBD (to be determined)

December 21<sup>st</sup> - General Meeting 7pm  
 Installation of Board &  
 Favorites - Show-n-Tell  
 Location TBD

Map of Hope College Schaap  
 Science Center, Parking is off  
 12<sup>th</sup> St or West end.

Hope you find  
 your way !



## WELCOME NEW MEMBERS

James and Mary Sue Dawsey -  
 Holland, MI

Merridy and Greg Jeffery -  
 Zeeland, MI

Judy Riemersma - Hudsonville, MI

## OTHER EVENTS:

Nov. 4-6: CLEVELAND, OH, Annual Micromineral Symposium, Micromineral Society of the Cleveland Museum of Natural History, Cleveland Museum of Natural History, 1 Wade Oval, Fri 7:30-9:30P, Sat 8:30-5:00, Sun 9:30-3:30, Contact Dick Green, 1745 13th St, Cuyahoga Falls, OH 44223, (330) 929-2395, [jgreen2@neo.rr.com](mailto:jgreen2@neo.rr.com)

Nov. 5-6: STURTEVANT, WI, Annual Show, Racine Geological Society, Fountain Banquet Hall, 8505 Durand Av Sat, Sun 10:00-5:00, Contact John Lowman, 3223 Spruce St, Racine, WI 53403, (262) 554-5370

Nov. 7: BLOOMFIELD HILLS, MI, Annual Auction, Michigan Mineralogical Society, Cranbrook Institute of Science, Auditorium, 39221 N Woodward Av, Mon 6:30 Viewing, 7:00 Auction, Contact: Mildred Hurt, 1211 E Maxlow, Hazel Park, MI 48030, (248) 398-6693, [georgematyas@att.net](mailto:georgematyas@att.net)

## Book Signing by Karen Brzys on Sunday, November 20<sup>th</sup>



In the September TCG&M Club Newsletter was a book review on *Agates: Inside and Out*. Well here is your opportunity to talk to Karen in person. She will be giving an agate power point presentation; also visit her booth of mineral art. The event will take place at the Ottawa County Nature Education Center, Port Sheldon Township on that Sunday from 1:00 - 4:00 pm. 8115 West Olive Road, West Olive, MI. From US 31, take the Crosswell Street exit and drive west a short distance to West Olive Road. Turn south on West Olive Road and travel about 0.4 miles to the entrance on the west side of the road. For information call the nature center at 616-786-4847. Information is also available in their on-line newsletter at <http://www.miottawa.org/ParksVI/Parks/pdf/newsletters/fall2011.pdf>.

## LAKE SUPERIOR FACTS

<http://www.law.umkc.edu> search for Lake Superior facts.  
via the Pterodartyl, Roamin Club, Livonia, MI

- Lake Superior contains ten percent of all the fresh water on the Earth.
- It covers 82,000 square kilometers or 31,700 square miles.
- The average depth is 147 meters or 483 feet.
- There have been about 350 shipwrecks recorded in Lake Superior.
- Lake Superior is, by surface area, the largest lake in the world.
- A Jesuit priest in 1668 named it Lac Tracy, but that name was never officially adopted.
- It contains as much water as all the other Great Lakes combined, plus two extra Lake Eries!!
- There is enough water in Lake Superior to cover all of North and South America with water one foot deep.
- The average underwater visibility of Lake Superior is about 8 meters or 27 feet, making it the cleanest and clearest of the Great Lakes. Underwater visibility in some spots reaches 20 meters.
- In the summer, the sun sets more than 35 minutes later on the western shore of Lake Superior than at its southeastern edge.
- Some of the world's oldest rocks, formed about 2.7 billion years ago, can be found on the Ontario shore of Lake Superior.
- It very rarely freezes over completely, and then usually just for a few hours. Complete freezing occurred in 1962, 1979, 2003 and 2009.




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## Get to Know Your Fellow Member: Trudy Fetters, Director at Large

**Interests/Hobbies:** dogs: training and showing in obedience; reading, hiking, travel.

**Favorite rock:** I guess it would be the pudding stone, and of course diamonds (bling)

**Do you have a workshop:** It should be my kitchen, but I'd rather spend my time doing research in our "commo room."

**What do you read:** Non-fiction about WWII and Vietnam. I'm currently working on my uncle's letters home during WWII, my father-in-law's WWII service in India, and of course my husband's Vietnam service.

**Favorite food:** Anything someone else makes-I don't enjoy cooking. **Least favorite thing:** cooking

**What was/is your profession:** Teacher-mostly out of state, everything from 1<sup>st</sup> grade (53 kids and 35 desks-rural Alabama) to US Army servicemen.

**What no one knows about you?** How about jumping out of the 34 foot airborne parachute training tower or rappelling down the 60 foot tall tower in the Green Beret training area at Fort Bragg, NC?

Was in a harmonica band.

**Weirdest thing in your home:** I'd have to say it's our collection of military items, including a life size mannequin dressed in Green Beret jungle fatigues. Not weird enough? How about a camel saddle from Turkey?

**Biggest collection in your home:** Besides the army things, it would have to be my collection of plaster plaques with Bible verses. These were popular in the 1930's and 40's, ranging in size from very tiny with one word (Pray) to huge ones with an open Bible and the text. It's terrible, but I have over 300 of them. And then there are a few tons of rocks sitting inside and outside the house.

**Best trip you took:** That would have been my solo trip around the world. I went to Hong Kong to visit my husband for a week's leave, and then continued the rest of the way home by way of Thailand, India, etc. We went back to Hong Kong and Vietnam a few years ago-that was interesting too.

**Trip you would like to take:** Back to Hong Kong-no doubt about it!

**Involvement or favorite thing about the club:** The road trips and the meetings.



*Our deepest sympathy to Jim Benson, family and friends on the passing of Jim's daughter, Melissa Kay Schwartz, on Wednesday, October 5, 2011 in Hospice House of Holland.*

*Memorial contributions may be given to: ALS Research  
Robert Packard Center for  
ALS Research at Johns Hopkins  
5801 Smith Avenue  
McAuley Suite 110  
Baltimore, MD 21209-3652*



*Friendly note to Member Jill Carle who is recovering from back surgery in September.*



**West Michigan MWF Mineral Study Group.** The next meeting will be held on Tuesday, November 8, 2011, from 7- 9pm, at the home of Kreigh Tomaszewski, 653 Burton St. S.E., Grand Rapids, MI 49507. We will be studying the Beryl group (technically it only includes Bazzite, Beryl, Pezzottaite, and Stoppaniite; commonly it also includes Emerald, Aquamarine, Morganite, Heliodor, and Goshenite).

We try to start (and end) on time (though we often finish a little early); please do not arrive more than 20 minutes early. All West Michigan rockhounds are invited to attend. Please look up a few facts about the topic mineral(s), and bring along specimens of the topic mineral(s) to let others look at (the more, the merrier, but please feel free to come even if you can't bring a specimen). We hope you can join us as we learn about minerals from each other.

At the October meeting we explored the Tourmaline group, which includes Buergerite, Chromdravite, Dravite, Elbaite, Feruvite, Fluor-dravite, Fluor-feruvite, Fluor-liddicoatite, Fluor-schorl, Foitite, IMA2009-088, Liddicoatite, Luinaite-(OH), Magnesiofoitite, Olenite, Oxy-dravite, Oxy-rossmanite, Oxy-schorl, Povondraite, Rossmanite, Schorl, Unnamed (F-analogue of Elbaite), Unnamed (Mn-dominant tourmaline), Unnamed (Pb-dominant tourmaline), Uvite, and Vanadiumdravite. All tourmalines share a common chemical formula and crystal structure, but differ in what elements plug into the six variable parts of the formula for this complex boron cyclosilicate.

This trigonal gemstone comes in almost every color of the rainbow, and it is not unusual for single crystals to have more than one color from changing conditions during growth. Tourmalines have a hardness of 7 and were originally thought to be zircons. Many tourmalines are dark colored, but the exceptions can be beautiful. Crystals are brittle, pyroelectric, and piezoelectric.

Tourmalines are normally associated with pegmatites, but they are also found in metamorphosed limestones, and in dolomites. Tourmalines are found globally, and most localities are or have been mined for gemstones that can grow up to a couple feet in length. Most commercial production currently comes from Brazil.

We had specimens of all the major varieties. Hand identification is never perfect, but by holding and studying enough specimens you can easily learn to identify the most common 10% of minerals (that make up over 95% of the Earth). The bulging triangular crystal shape of Tourmaline, and the lengthwise striations, makes it easy to identify. By sharing our specimens and a little research we are learning from each other. We had a lot of specimens to examine this month, both polished and in the rough.

Everyone who attended this meeting (that set a new record for attendance, and included multiple clubs) went home with a scoop of 'pocket mud' from the Himilaya Tourmaline Mine in southern California. No guarantee of a tourmaline, but everyone should find some interesting minerals from this complex locality. Sometimes we have surprises.

## MID-WEST FEDERATION

[www.amfed.org/mwf](http://www.amfed.org/mwf)

by Cindy Root, 1<sup>st</sup> MWF Vice President

It doesn't matter which club you belong to, you will eventually hear someone ask, "Why do we have to belong to the Midwest Federation and pay for their insurance?" Really, that's two questions.

First let's deal with the insurance question. You don't have to purchase insurance. The insurance is there to protect your club on field trips and during shows. If your club does neither, you wouldn't need it. If your club only has a portion of the membership who participates on field trips, you wouldn't need coverage for your entire club. I've heard clubs talk about getting their own insurance. Good luck. Who will you have take care of the business end of getting insurance and where will you get as cheap a rate? Check into it. People have and they've been very unpleasantly surprised.

The big question – why should we belong to the Midwest Federation? Here are some questions for you.

Where else will you find the resources available to your club than membership with the Midwest Federation? There are programs available for your club to use on almost any rock-hounding subject for only five dollars to cover postage and insurance. Have you ever been to a meeting where any of these programs have been used?

There are 34 committees with chairs. Has your club ever used one of these chairpersons as a resource? If not, why not?

Have you challenged yourself lately? There are several contests that occur every year with very few participants. What stops your club from entering any of these? The ones that particularly come to mind are Bulletin Editor, Articles and Website. Only three clubs entered the website contest this year. Why is that?

Have you ever visited the MWF website for information on programs, or who you could contact with questions or possibly even a committee chair in your area who might speak at one of your meetings? There are all sorts of resources available to you from the MWF. Are you aware that all of the club shows are listed by month on the website? Where else would your club get as much coverage? If you didn't send in your show information with your club registration, all it takes to get the information on the website is a simple e-mail. Have changes that need to be made to your information? That's as simple as an e-mail too.

Why aren't more people and clubs taking advantage of these resources? Do you get this information from your club's liaison to the MWF? Have you ever seen a MWF newsletter? Your liaison gets one every month—an AMFS newsletter too. Do they get circulated? Do you hear about the contests and other events taking place?

Ask your club's leaders about their interaction with the MWF. Do they participate or just complain? There's more to a rock hound club than preparing for the yearly show. If that's all you're getting, you need to expect more. How better to increase your participation and education concerning your hobby than to take advantage of the resources available to you by being a member of the Midwest Federation. No man is an island, but a rock club could be.

Probably the most important aspect of being an active member of the MWF is the people you will meet and the friends you will make. I'm certain that each of you has made friends among the members of your club. Think of that on a larger scale. You will be delightfully surprised at the knowledge and experience shared among MWF members. Why wouldn't you want to share in that benefit?

Don't miss "A Celebration of Agates" July 26-29, 2012. The Minnesota Mineral Club is hosting a four-day agate show, in conjunction with the American Federation of Mineralogical Societies and the Midwest Federation of Mineralogical and Geological Societies. Sign-up for more information at [www.minnesotamineralclub.org](http://www.minnesotamineralclub.org).

## Flint Ridge, Ohio Field Trip, September 2-5, 2011

by Dave Nienhuis

Jon Jillson and I began our journey to Ohio Thursday evening after work. Bob Sherwood was unable to attend, but did all the work putting together the details of our trip and found a nice hotel at a very low cost! We were glad to get there as we were both getting very tired!

Friday morning we set out for the Flint Ridge Knap-In held at Flint Ridge Memorial State Park. It was a good size event and after we walked around a bit we met up with Roy Miller. Roy was featured in the April 2010 issue of Rock & Gem magazine that featured the awesome dovetail points made of Flint Ridge flint from his pit. Roy was very friendly and helpful in trying to educate Jon and me about the colorful flint, and even gave us some of his heat treated pieces.

Heat Treating is used to assist in the knapping process, and enhance the colors in the flint. It's a long process of slowly bringing the flint up to 500 degrees and then slowly bringing the temperature back down. (I found a big "cooker" at a secondhand store for a few bucks that should allow me to give this a try when I get a chance.)

After giving Roy a package from Bob Sherwood, some Utah material to try knapping, Roy took Jon and me to his pit location. Roy had done some recent digging with his backhoe and asked that we not collect down in the pit as there was a large pile with plenty of material (flint) for us to pick from. After searching thru the pile to find our own hidden treasures I did climb into the pit for a picture of the colorful material in situ.

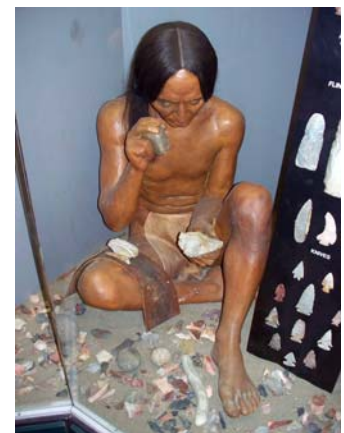
We then headed back to the Knap-in. At the park, there was also a museum and nature trail that featured many ancient flint pits. The museum had some nice displays, but on that day the best part was the A/C and the cold water from the drinking fountain. Once our body temp was cooled we made our way back to Roy's booth at the knap-in to admire the fine work of Roy's "points". Jon and I picked out a nice point to bring back for Bob. Jon also picked one out for his collection. Later that day I too decide that it was a good idea to have a Roy point since he was the center point of our trip, and was told his Dovetail points are the "hot" ones to have.

On Saturday, after a good night's rest, Jon and I headed out to the Nethers Farm to hunt for more of the colorful flint. There we met Peter and Dakota Reimersma, Tulip City members (picture on right). There was a \$5 entry fee and \$0.50 per pound for what you took out. We hunted a few pits and found some interesting flint with quartz to go along with the different varieties of flint. Recent digging made it easier to collect, than the planned 'hammer and chisel' routine. If we had more time, energy and cooler weather, we may have found nicer, fresh material, but it seemed to this flint novice that you could pick through what was there and get some nice color.

We again headed back to the knap-in where Roy graciously allowed me to take the Reimersma's to collect some material from his pit.

I think we all found this field trip to be an enjoyable experience. I recall that Dakota began a little slow, but once he started finding some cool pieces he really got into it and we all knew when he found his next treasure. It's always a pleasure to watch the youth of our club get excited about our hobby. (Dakota, how about if we don't mention who was always the last person to leave each site.)

Being the flint novice, I feel that I walked away with not only some nice material, but also a little knowledge of Flint Ridge, the flint found there and the ancient people that treasured it many years before us.



## HAND POLISHING PETOSKEY STONES

by Joe Moran, TCG&M Club Founder

Michigan Petoskey Stones are a special fossil coral from the Devonian geological period, about 350 million years ago. The pattern is formed by the bony tubes in which the little coral animal once lived, which was filled by an exceptionally fine, crystalline limestone. Petoskey Stones are found, for the most part, only in about five countries in northern Michigan, and are noted as a fossil unique to that region. Occasional "Petoskey's", which have been transported by the glaciers, are found in the Holland area in gravel pits and on the beaches.

Petoskey stones are abundant on the Lake Michigan beaches of North West Michigan. Sharp eyes, plus a little knowledge of what to look for, can reap a harvest of the fossil corals.

The rough stone looks much different than a finished one so look sharp! Wetting a Petoskey, even when it is in the rough form will usually bring out the delicate hexagonal pattern.

### Directions for Hand Polishing:

1. Use "Silicon Carbide" wet-or-dry abrasive papers (available at most hardware stores). For rough natural stones, coarse 100-grit paper might be needed to start. For stones pre-polished by wave action, as found on the beach you may start with 220-grit paper. Sand the stone thoroughly, turning it systematically, not missing any spot, and rubbing long and hard. Dip the stone into water frequently, so that you are sanding it wet. The thoroughness of this first operation is important. Don't skimp on time and effort here.
2. When the stone has been roughed-up, or scratched to the same degree all over, and you have achieved the final shape you want, wash it and start with 400-grit paper. Continue keeping the stone wet, and remove all 220-sanding marks with 400 paper.
3. When the stone looks evenly "Frosted" all over when allowed to dry, wash it and repeat the sanding process with 600-grit paper, carefully removing all 400-grit marks, and working the stone wet.

REMEMBER, ONLY THOROUGH SANDING WILL ALLOW A SMOOTH, POLISHED FINISH. SO EXAMINE THE STONE WELL TO SEE THAT ALL SCRATCHES, ETC. HAVE BEEN REMOVED.

4. To Polish: When the stone has been sanded very smooth, wash it thoroughly and dry it. Rub a piece of dry polishing compound on a piece of carpeting, or velvet, felt, or similar material. Rub the dry stone on this, rubbing hard and fast to develop a little friction, turning it evenly, and renewing the polishing compound on the pad when it seems necessary. (It is usually easiest to put the carpeting—and the sanding papers—on a firm surface, and rub the stone down on them). Your finished stone should have a clear, shiny surface and show the beautiful pattern in detail.



LaFarge Quarry  
Field Trip  
10/8/11

Beautiful piece of coral found!

Jan Sjoquist shows > off her quartz crystals and pyrite find. "I also joined the Tulip City club because I like the people there so much."



Above - Tulip City Gem & Mineral Club  
Below - Kalamazoo Club.

June Downing, field trip organizer, on left. Many buckets were filled. Thank you LaFarge. Photos by our newest TCG&M Club member Merridy Jeffery.





# Junior Rock Club Page

Junior Club Advisors: Rick Smith and Linda Winkelmann

## Quartz is a Silicate Mineral in lots of Rocks!

Quartz is a silicate (SiO<sub>2</sub>) and the commonest of minerals, found in every class of rocks and forming under all sorts of conditions. F.H. Pough states that "Quartz can be divided into two groups on the basis of appearance - crystallized and microcrystalline. The microcrystalline group can in turn be subdivided into a parallel fibrous crystal arrangement and heterogenous finely granular type." All have a hardness of 7 on the Moh's scale and a glassy luster.

- \* Quartz crystals can be large individuals or clustered little ones in crusty, druzy coverings. They can be clear, violet (amethyst), gray to black (smoky quartz), rose, cloudy or milky.
- \* Chaledony is a microscopically crystallized variety with fibers in slender bands... often look like smooth and translucent "grapes or roses"... with banding obvious in the type called Agate.
- \* The Chert-Flint-Jasper group also has microscopic crystals without the banding or translucency and usually have more impurities.

Sedimentary "Sandstone" is primarily quartz, which can change (lots of pressure, heat and time) into metamorphic "Quartzite". Our take-home specimen is a "QUARTZ on BARABOO QUARTZITE". The Baraboo Quartzite is extremely old (350+ million years), so it was buried quite deeply before the ancient sediments were eroded off. When this Quartzite cracked on its way "back to the surface", quartz crystals grew on it, within veins. Kevin Ponzio, Earth Prospect and Mining (a dealer at our Show) provided our Juniors with these very interesting silicate rocks from Wisconsin. ~ Thank you, Kevin!!



### TULIP CITY GEM & MINERAL CLUB MEMBERSHIP RENEWAL FORM

DUES DEADLINE – December 31, 2011

Mail to: **Rebecca Cistaro**  
**1162 Wintergreen Dive**  
**Holland, MI 49424**

Make check payable to: TCG&M Club

Check membership type:  Individual - \$15     Family - \$20

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_ Email \_\_\_\_\_

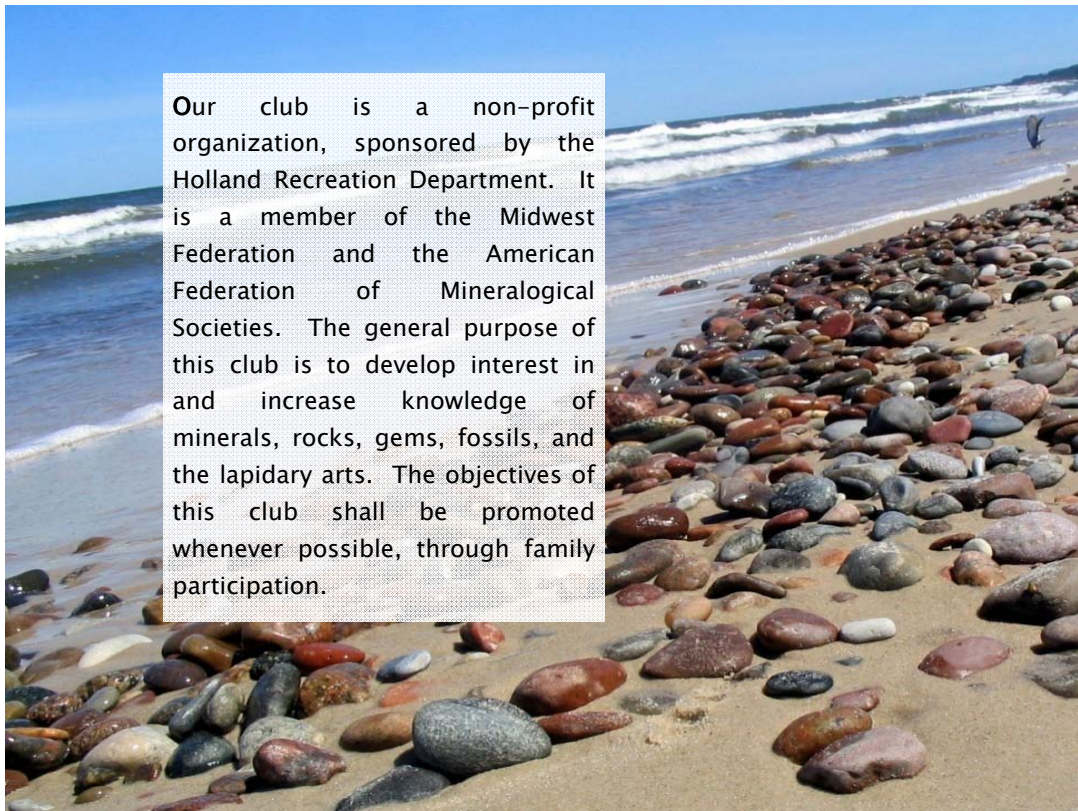
I would like to receive my newsletter via email only.

*Note: New Members that signed up at the Sept. show are paid for 2012.*



Circle Interests:  
Minerals, Fossils,  
Lapidary, Field Trips,  
Club Office

Comments:  
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Our club is a non-profit organization, sponsored by the Holland Recreation Department. It is a member of the Midwest Federation and the American Federation of Mineralogical Societies. The general purpose of this club is to develop interest in and increase knowledge of minerals, rocks, gems, fossils, and the lapidary arts. The objectives of this club shall be promoted whenever possible, through family participation.

Advertising rates for Club members are: \$5 for business card size, \$10 for ¼ page, \$15 for ½ page, \$30 for full page. Double the rates for non-members. Payment by check; made out to: TCG&M; to be submitted with ad copy to Editor.

Deadline for Article Submission to the Editor is the Friday after the Board Meeting.

*Articles in this bulletin may be reprinted, provided credit is given to the source, author and bulletin.*

Dues: Family \$20 Single \$15

Meetings are held monthly on the last Wednesday of the month. See Calendar for meeting location announced in this TULIP CITY CONGLOMERATE. A Junior Club welcomes young rockhounds and meets separately during the evening.



Tulip City Conglomerate  
Karri Nienhuis, Editor  
4121 60th Street  
Holland, MI 49423



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