

The Midwest Faceter

A Publication of The Midwest Faceters' Guild, May 2012

Special News Item

By Grandma Barb Yost

News Flash:

Faceted Stone by 13 year old Casey Wynsma receives Blue Ribbon at the Kent County Youth Fair.

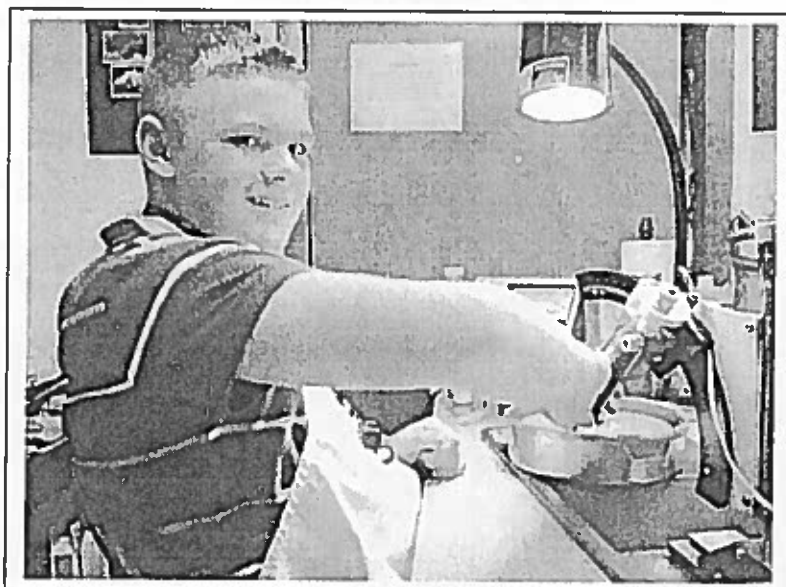
During the summer of 2011, Casey spent some time with his Grandma Barb and learned to facet. Casey picked the stone, a blue Topaz from Grandma's stock. The design was the Easy Eight by Jeff Graham. Casey learned how to orient the stone for best color. To dop the stone, we used super glue.

The pavilion was cut first and a good meet point was made at the culet. When Casey worked on the girdle he learned that this is how you size a stone. He wanted the largest he could get from the rough and it ended up 10mm.

Casey then worked on the crown and was able to see how the facets come together to form a detailed design. He learned that polishing was when the life and brilliance of the stone comes out. And of course the table as the final facet came in very well for him.

Casey also picked a ring mounting and with help was able to set his stone in his own ring. During the faceting process Casey took notes and Grandma Barb took pictures so that he could compile a report about his faceting experience.

Casey has since faceted one other stone as a Christmas gift and is already asking to facet again.



Editor's Note: This is the future of the hobby. If you have children in your life, sit them down, get 'em dopped up and get them cutting.

Meeting Minutes – January 14, 2012

Held at the Cranbrook Museum Café, Bloomfield Michigan

Meeting was scheduled for 11:00am, due to snowy roads conditions it was agreed to wait to see if more members arrived.

11:45am President Linda Badger opened the meeting with a welcome and thank you to all who came. It was mentioned that there would not be a tour as the members of the Michigan Mineralogical Society are attending a banquet.

Secretary's report: Linda ask if everyone had read the minutes in the printed in the newsletter. Mary Lee made a motion to accept the minutes as published, 2nd by Amy Uphaus. Unanimous vote.

Treasurers report: Read by Linda Badger. Amy Uphaus made a motion to accept the report as read with Mary Lee seconding the motion. Vote was unanimous.

As a note Secretary Ruth Ann and Treasurer Melvin Lehner are in Georgia for the winter months. We missed them! Linda ask if there was any old business. Barb Yost ask for discussion on the name badges brought up at the November meeting. Purchasing the name badges from A frame Awards per an email generated by Ruth Ann. Pricing is as follows: Single badge \$7.00, qty. breaks 2-6 \$6.00, 7-12 \$5.50, 13-24 \$5.00, 25-49 \$4.50. Plus any shipping costs. A motion was made by Barb Yost and seconded by Amy Uphaus to offer the badges and have the information posted in the newsletter with any order deadline of June 1st. Should a member want the badge mailed to them a additional cost of \$2.50 would be added. The badges would be made available at the next meeting most like in August. The vote was unanimous.

Linda ask for new business, however it was mentioned that there was still some old business to discuss. Barb Yost asked if Linda had any more conversation regarding a place for the seminar, as at the last meeting the location had been tabled while she researched other options. No other options or suggestions have been forthcoming. With this information Barb Yost ask for permission to contact Tallmadge Township Hall in Grand Rapids and see what dates they have open and move forward on making the seminar happen in August 2012. Either the weekend of the 11th or 18th. Some discussion was held regarding offering wire wrapping and wire knitting and possibly beading along with the Faceting and GemCad. A motion was made by Amy Uphaus to have Barb get the seminar set and get the information to Tyler Miller so he can handle the publicity. Approved by all present.

Discussion was held regarding holding a meeting in June in conjunction with MGAG's. Also to see if our members would like to attend their banquet. Barb Yost will contact them to get some information and forward it Linda to make the final meeting decision.

Linda badger will try to plan an April 21st meeting to be held once again at Cranbrook Museum. Linda will verify availability and notify members of the meeting arrangements.

Discussion was held regarding having a meeting during the Mason show. The time of the meeting was discussed and the issue of club members and vendors not being able to go off site for a lunch meeting. At this time it was decided to table/wait to confirm the time and place of this meeting but that it would be great to have it at the show maybe in the luncheon area.

Discussion was held to ask Cindy Root to please publish in the MFG newsletter dates and times of all shows in Michigan, Indiana, Illinois, Ohio and Wisconsin. With yearly updates.

With the mention of the Newsletter, we would like to take a moment and Thank Dave Root for all the information and the quality of the newsletter. A big thank you to you Dave, we all appreciate the time and effort you put into this publication. We would also like it known that anyone can contribute by sending articles or pictures to Dave for inclusion in the newsletter

Discussion was held regarding the Competition Stone for 2012. Barb ask if Linda had heard from Virginia Steele with information on the designs and dates as these need to be published. At this time Virginia had not contacted Linda with any information. Barb Yost mentioned that she would be willing to coordinate this so that the competition could continue and get going Linda Badger will talk with Virginia to see if she would like to continue or would like some assistance.

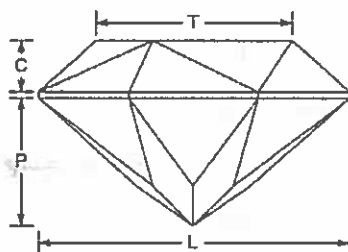
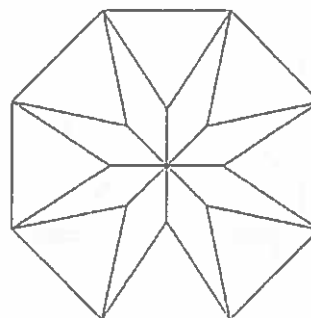
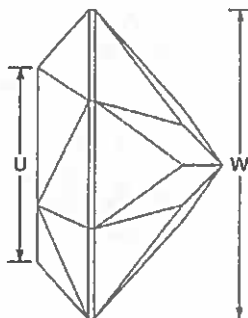
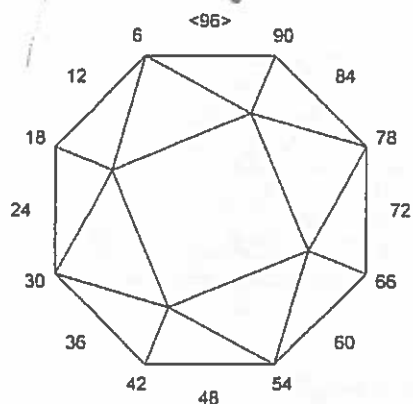
Everett Brake was kind enough to submit several designs for consideration. The designs were voted on for Novice, Pre-Master and Master. A motion was made by Amy Uphaus and seconded by Dan Woodruff to publish the designs & rules in the March newsletter, (Barb will get the information to Dave) with a deadline for entry the date of the August seminar, Results and Awards will be given at the October meeting. Vote was unanimous. Linda Badger made a motion and Dan Woodruff seconded that there would be No charge to enter the competition. Should a member want his stone mailed back they would pay postage. This was approved by unanimous vote. Linda Badger also discussed a flat fee be paid to judges, a motion was not made nor was a vote taken on this item.

Discussion was held regarding certificates for teaching, judging, demonstrating. It was felt that we should do more to recognize those that participate. Linda Badger said that she would like to take care of the certificates as she will need to sign them so she may as well do them.

It was agreed it was time for the raffle. A lot of nice rough was in the raffle along with some glass fish, a silver finding, a ring box and a necklace box. The raffle brought in \$56.00 which will remain with Amy until the next meeting. Also Linda Badger collected \$5.00 for one of the calendar designs books. Linda badger adjourned the meeting at 1:15

Respectfully Submitted: Barb Yost (For Ruth Ann Lehner – Secretary)

2012 Novice Stone

**21.046 Easy Octagon**

by Quincy D. Howell

New Mexico Faceter, Aug 94

Angles for R.I. = 1.540

29 + 8 girdles = 37 facets

4-fold radial symmetry

96 index

 $L/W = 1.000$ $T/W = 0.631$ $U/W = 0.631$ $P/W = 0.415$ $C/W = 0.166$ $Vol./W^3 = 0.225$ **PAVILION**

90.00° 96-12-24-36-

48-60-72-84

42.00° 96-12-24-36-

48-60-72-84

37.50° 06-18-30-42-

54-66-78-90

CROWN

42.00° 96-12-24-36-

48-60-72-84

29.00° 06-30-54-78

0.00° Table

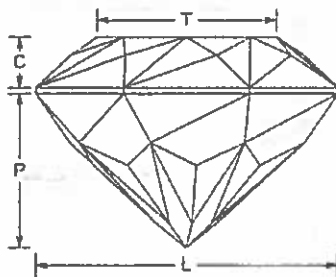
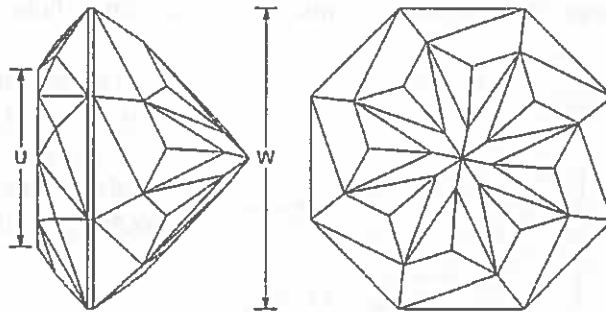
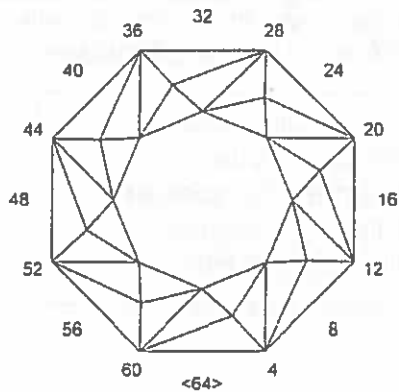
NOVICE CLASS - Midwest Faceters Guild 2012 Single Stone Competition

Material: Cutters choice - any color

Width: 12mm +/- .5mm Judges will measure W flat to flat

Girdle: .3mm +/- .1mm

2012 Master Stone

**21.150 FVS-151 Gambler's Rose**

by Fred W Van Sant

Star Cuts III pg 151 1989

Angles for R.I. = 1.540

73 + 8 girdles = 81 facets

8-fold radial symmetry

64 index

 $L/W = 1.000$ $T/W = 0.593$ $U/W = 0.593$ $P/W = 0.515$ $C/W = 0.168$ $Vol./W^3 = 0.271$ **PAVILION**

90.00°	64-08-16-24-32-40-48-56
55.78°	64-08-16-24-32-40-48-56
48.96°	07-15-23-31-39-47-55-63
43.01°	64-08-16-24-32-40-48-56
43.20°	06-14-22-30-38-46-54-62
41.00°	02-10-18-26-34-42-50-58

CROWN

43.50°	64-08-16-24-32-40-48-56
37.00°	07-15-23-31-39-47-55-63
34.98°	06-14-22-30-38-46-54-62
26.35°	04-12-20-28-36-44-52-60
0.00°	Table

MASTER CLASS- Midwest Faceters Guild 2012 Single Stone Competition

Material: Cutters Choice - any color

Width: 12mm +/- .5mm Judges will measure W flat to flat

Girdle: .3mm +/- .1mm

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Polishing Laps

By Steve Richards – reprinted from the May 2012 issue of Facets, newsletter of the Columbia-Willamette Faceter's Guild.

I kind of inherited Bob Groves penchant for cutting large stones. I'm not sure how it happened but it has. If you've never tried cutting a stone of more than 10-15 mm most of the stone is easy to cut and polish except for the table, which seems to present difficulty. I've found through trial and error several things that seem to help.

One of them helps no matter what size the table is. Most of us have a machine that uses a 45 degree adaptor for working on a table. If you are working on a stone, consider it large if it is large enough that it gives a problem, whether it's 15 mm or 25mm. No matter what the size of the stone, you use a 45 degree adapter to polish the table.

The Facetron dop is keyed and has a flat on it so it only goes in the machine one way. The setscrew was designed to screw down on that flat. When you do that it sticks out quite a ways. When the stone is down and the lap is going around there is a lot of space for vibrations. What I found that really helps no matter how large or small the table is, is to push the dop up as far as possible. Larger dops have a large piece attached to the dop shaft, so push it in all the way to the shoulder. You might still get vibration, but what vibration you do get doesn't have as much space to move back and forth. So it will help polish no matter what size stone you are working on. Once I started moving the stone up on the adapter, a lot of my problems went away.

The reason large stones present a difficulty on the table, is that you have to keep your lap and stone parallel or else it won't polish. If the stone is small, you can have quite an angle and still have a polishing grip across the entire table. As the table gets larger, the angle where the whole thing works gets smaller and smaller.

There are several ways to beat that. Of course, you want to get it as close to parallel as possible, but if you think about it, you've got a certain amount of give in your machine because it has moving parts. Moving parts have to have space or else they can't move. If you have a 1/4 inch shaft and a 1/4 inch hole, nothing moves. The shaft has to be 1/100,000 of an inch smaller than the hole or else it binds up. The lap is spinning, the motor has some vibration in it, everything moves, so it is extremely hard to get the table exactly parallel to the lap.

It's best to use the coarsest media that will give you the polish you want. If you're using 100,000 grit, maybe you'll have to drop down to 50,000 or 14,000 grit so it will not be quite as critical to have a parallel surface.

That brings us down to the polishing lap. In my mind, I grade laps according to how hard they are. Not all laps are as hard as others. The hardest would be the ceramic laps. There is virtually no give. The polishing agent rides right on the top and doesn't embed itself in the lap. Ceramic produces the flattest surface, but when working with a large stone, it can be difficult to get the table polished. Personally I like to work with ceramic on harder stones like spinel, CZ and corundum, just because it gives such a good polish. But I've just about given up trying to use the ceramic lap on any of the tables, because to me it isn't worth the extra work. There are members of the Guild, maybe some of you, that just can't use a ceramic lap. They just haven't been able to get them to work.

Q: What polish are you using with your ceramic lap?

A: Mine is charged with 100,000 diamond.

The next hardest lap would be cast iron. It is probably the oldest material used as a lap, either cast iron or copper. You don't think of cast iron as soft, but it is softer than ceramic. It has a little more give, and you can get a very comparable polish with a little bit coarser compound on it.

Stepping down from cast iron would probably be the BATT lap, today pretty much replacing ceramic and cast iron laps. I don't know whether it could replace them, but I found about a 14,000 BATT lap produces virtually the same polish as 50K on cast iron. The BATT lap is a proprietary formula made by John Rolfe.

Pure tin or tin/lead alloy has been used for many years, but the BATT lap is pretty much replacing them. You can use a coarser grit on the BATT lap and produce the same polish as a finer grit on either cast iron or ceramic. I don't have the pedigrees to prove it, but I think the diamond is able to embed itself into the BATT lap. All the metals have a certain amount of give. That's what is important when trying to polish the large surfaces.

The other lap that's working very well for me that isn't even considered a polish lap for very hard material, is the Dyna Lap. They go into production and then they quit, so the availability is not good. They are very thin, so you have to put them on a

at low heat. You can actually see the water rise to the surface. Going back to cast iron skillets, you do the same thing. Too much heat causes them to warp, but most of them you can set the temperature at 175 to 225 degrees. It's enough to get them really dry. Then use oil or kerosene, whatever you like to use to keep them from rusting.

The surface of the lap has a lot to do with how the grit works. You take 14K on a BATT lap, a tin lap, or a cast iron lap on the same stone, and you will get three different surfaces. You can't just say 14K diamond will give you a nice polish; it depends on the surface you use.

Just a general observation on laps. If you're just starting to learn to facet, I highly recommend getting one of the brands of the real thin laps like the Dyna Lap. After you wear several of them out without getting grooves, think about whether or not you want to get one of the much more expensive laps. It is less traumatic and easier on the pocket book to ruin a 45 dollar lap rather than a 100 dollar or higher lap. If you really splurge and get a sintered lap, which is diamond embedded in a 1/4 of bronze, it is a 300-400 dollar lap. If you ruin that, you're not going to be happy. Until you can wear out a set of the less expensive laps, don't really spend your money on more expensive ones.

Q: When you charge a lap with diamond, are you committing that lap to that grit?

A: Once you charge a lap, I consider that lap pretty much for that grit. you can go to a coarser grit. If you've charged a lap with 14K diamond, you can charge it with 8K or 3K and so on. If you take that coarser lap and clean it really well, then charge it with 14K, the odds are pretty good that some of the coarser diamond is still on the lap.

Q: How about the oxides?

A: I haven't worked with the oxides on metal laps. They are softer and won't embed as much in the metal.

Comment: On a 6" BATT lap charged with 50K, I've used cerium oxide and haven't had any problems.

Comment: I've gone back and forth with 100K and 200K on a ceramic lap without any problems. Ceramic laps are in a class all their own, just because they are so hard and the material embeds in it such a miniscule lap.

Comment: If you have a large piece of CZ or other hard material, I charge my ceramic lap, then run this over it a few times before polishing.

With the ceramic lap, I've taken to cleaning it with a single edge razor blade, the ones you can find at model shops that the have the edge on one side and the rolled metal guard on the other side. With the lap spinning, I hold against the lap against the direction the lap is spinning. If I've been getting scratches, after two or three passes, after I get most of the crud off the lap, I'll start hearing a tick-tick-tick which means something's there. Just keep working that blade back and forth until it's gone.

This isn't the end all and be all of laps by any means. The one I did not mention, because I don't know where you would get it, came from Dick Walker. It's the same paper epoxy used for making circuit boards. He cut it into a circle, and I use it with tin oxide for polishing beryl. It's wonderful.

Editors note: That is the Wizard Lap, available from John Franke at The Facet Shoppe in Burley, Washington.

Q: Why do you polish beryls this way?

A: On the advice of Dick Walker, who many of you know is a certified gemologist, the only thing to polish emerald with is tin oxide. You can put the stone in acid to dissolve the tin oxide. If you get diamond or anything else into the inclusions, there isn't any way to extract it. I don't know from personal experience, but I respect his word because he is extremely knowledgeable in the gem and jewelry business.