



Pretoria Gem & Mineral Club

established 1957

Affiliated to the Federation of Southern African Gem and Mineralogical Societies

Registered as non-profit organization – SARS 9830/639/14/3

March 2019

Pretoria Rockhound Digest

Pretoria Gem and Mineral Club
P.O. Box 36 888
Menlo Park
Pretoria 0102

Clubhouse: no. 29, 26th Street, Menlo Park
Saturdays 11:00–15:00, Thursdays 18:00– 21:00
Website: www.pgmc.co.za
Bank: ABSA Bank, Acc. No. 405 584 9839

Chairman: Willem Vorster, 076 612 4888
wcs.vorster@gmail.com
Vice-Chairman: Bernard Strydom, 074 850 5683
bernardstrydom@gmail.com

Admin.: Heidi Naudé, 072 923 2180
pgmcnewsletter@gmail.com



- | | |
|---|-----------|
| *** Swop & Sell | 2 Mar. |
| *** 2018 Annual General Meeting | 2 Mar. |
| *** Club Activity at Hobby-x Johannesburg | 7-10 Mar. |
| *** Silversmithing Course | t.b.c. |
| *** Club Outing to Ollie Roon | t.b.c. |

Hobby-X Johannesburg

7 – 10 March 2019, Ticketpro Dome, Northgate, Johannesburg

For the first time ever the Pretoria Gem and Mineral Club will exhibit at this well-known hobby and craft expo. We hope to introduce our club and hobby to the broader public. Daily demonstrations on lapidary (cabochon grinding and polishing) will be given by Willem, and on the weekend Bernard and Tobias will show their silversmithing skills together with Alan, who will introduce people to the art of sphere making.

Come and join us, bring your family and friends and chat to the experts; be inspired by the demos and ideas; grind your own cabochon. ***Dare to explore your creativity – you'll be amazed how good it makes you feel!***

Opening times: Thur./Fr. 10:00 – 18h00, Sat. 09:00 – 18:00, Sun. 09:00 – 17:00, tickets at the entrance.

The opinions expressed in this newsletter do not necessarily reflect those of the PGMC Committee. This newsletter is the property of the Pretoria Gem and Mineral Club; articles/photos may not be re-produced without the written permission of the Editor.

Section I - Calendar of EVENTS:

Programme for March

(as at 26.02.2019)


2 Mar	Lapidary and Silversmithing Workshop open Swop & Sell and Social Annual General Meeting 2018	11.00 – 13.00 13:30	Duty Members Note short shift! PGMC Members only!
7 Mar	Silversmithing Workshop open	18:00 – 21:00	Bernard Strydom, 074 850 5683
7-10 Mar	Hobby-X Johannesburg – PGMC Exhibition Stand	See details on	Page 1 of this newsletter
9 Mar	Lapidary and Silversmithing Workshop open	11:00 – 15.00	Duty Members
14 Mar	Silversmithing Workshop open	18:00 – 21:00	Bernard Strydom, 074 850 5683
16 Mar	Lapidary and Silversmithing Workshop open Committee Meeting	11:00 – 14.30 15.00 – 16.30	Duty Members Committee Members
17 Mar	Lapidary Sunday (confirm with Bernard)	08:00 – 13:00	Bernard Strydom, 074 850 5683
21 Mar	Silversmithing Workshop open	18:00 – 21:00	Bernard Strydom, 074 850 5683
23 Mar	Silversmithing Course – please re-confirm! Lapidary Workshop open	10:00 – 15.30 11.00 – 15.00	Bernard Strydom, 074 850 5683 Duty Members
?	Club Outing to Ollie Roon (to be confirmed)	t.b.a.	Willem Vorster, 076 612 4888
28 Mar	Silversmithing Workshop open	18:00 – 21:00	Bernard Strydom, 074 850 5683
30 Mar	Lapidary and Silversmithing Workshop open	11:00 – 15.00	Duty Members




Duty Roster




March 2019	2	9	16	23	30
Open – 11:00 am	Dieter	Heidi	Bernard	Willem	Lex
Duty Team	Dieter Heinichen Linda Stone	Heidi Naude Peter Beresford	Alan Crawford Dina Crawford	Oliver Green Anita Havenga	Lex Krabbendam Joanne Fidos
Close – 15:00 pm	Dieter	Heidi	Committee	Bernard	Lex

April 2019	6	13	20	27	
Open – 11:00 am	Willem	Heidi	Bernard	Willem	
Duty Team	Jan Oliver Joey Oliver	Willem Vorster Karin Mayerl	Dieter Heinichen Heidi Naude	Peter Beresford Yolanda Keyter	
Close – 15:00 pm	Willem	Committee	Bernard	Willem	




We still need **members** to serve on the **duty teams** and urge **all our members to avail themselves for administrative and/or machine duty**; training will be provided.

Please advise Willem or Bernard if you are willing to help, thank you.



1. Membership Fees 2019

Membership Fees for 2019 are now overdue and should be paid as soon as possible via EFT bank transfer to: Pretoria Gem and Mineral Club, ABSA Bank, account no. 405 584 9839; or cash at the clubhouse (Thursdays or Saturdays).

	R 500	Principal Member
	R 450	Pensioner (over 60's)
	R 100	per additional Family Member
	R 30	Joining Fee (new members only)

Please note that only fully paid-up members are entitled to use our clubhouse facilities, attend courses, participate at the Gemboree or any other club outings and receive the club's monthly newsletter.



A very warm **welcome** to our new members:

- **Willem Kruger**
- **Bernice Strydom**
- **Frik & Riekie de Beer.**

May your association with the club be enjoyable, long and productive 😊.



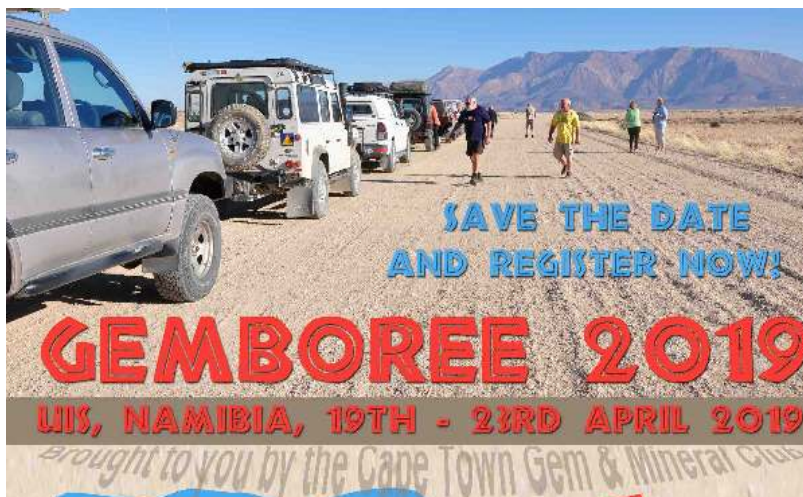
2. Reminder: Annual General Meeting 2018



Please come and join us for the 2018 Annual General Meeting at the clubhouse on Saturday, 2 March at 13:30. We reflect on the year and events of the past year, the financial situation of the club and the future plans for 2019.

Tea/coffee and light snacks will be served afterwards.

3. Gemboree 2019



Have you registered already?

Time is running out quickly and if you snooze you will definitely loose!!!

This is a wonderful outing and experience for the whole family, and a definite highlight on every rockhound's calendar.

Remember you have to be a paid-up club member (any club in SA) to participate.

General enquiries or registration forms should be emailed to the Cape Town Gem & Mineral Club gemboree2019@gmail.com

4. Swop & Sell and Social



The next **Swop & Sells** will be held on **Saturday, 2 March 2019** from 11.00 am onwards; all dealers welcome.

Members are invited to bring their own minerals and/or rock material, to swop or sell. Bring your family/friends and introduce them to our club and hobby.

5. Silversmithing Course

The Silversmithing courses are usually planned for the 3rd Saturday of each month; unfortunately no details have been made available as yet, please check directly with Bernard at 074 850 5683.



Shop Tips and Tricks by Brad Smith

MAKE A TEXTURE HAMMER (photos below left and middle)

An inexpensive hammer can be easily turned into a great texturing tool by grinding a pattern of narrow lines into its face. The tool I like to use is a thin separating disc in a Foredom or Dremel. Be sure to hold the hammer and separating disc firmly as you carve, and wear those safety glasses to protect your eyes. For the pattern to work well, a major part of the face needs to be away leaving only small areas of high points. That way the high points will have enough force to emboss the pattern into your sheet metal. If you don't like the first pattern you create, simply file or grind it off and try again.



STIFFENING EARRING POSTS (photo above right)

Soldering an earring post will always soften the wire a bit. The easiest way I've found to harden it is to grip it with pliers and twist it a couple half turns. This work hardens the wire and tests our soldered joint.

PICKLE PRECAUTIONS

A hot pickle pot gives off fumes that bother me in my home workshop. I get around that by using my pickle cold. I mix it a little stronger than for a hot pot so that it works almost as quickly. I keep it in a large-mouth plastic bottle and cap it off whenever I'm done using it.

Be More Productive With Brad's "How To Do It" books [Amazon.com/author/bradfordsmith](https://www.amazon.com/author/bradfordsmith) or check the sample chapter of his new book "More Bench Tips for Jewelry Making" at <https://amzn.to/2KCygh4>

6. Special Lapidary Sunday

Bernard Strydom has introduced a "lapidary only" work session on the 3rd Sunday of each month. Please note that this will be **lapidary work only – no cutting/slabbing of rocks, no silversmithing**. The session will run from 08:00 am to 13:00 pm and the normal workshop fee of R 15/pp applies. Please re-confirm with Bernard beforehand as he will only open the clubhouse if requested.

7. Faceting Classes – Saturdays

Contact **Peter Beresford** at 064 384 4514 to book your faceting place on Saturdays at the clubhouse. **Beginners and advanced welcome!**

Tuition, faceting machines, laps and polishing powders are supplied by the club – working fee/session = R 30. Faceting material (mainly Quartz varieties) will be available for sale.

Birthstone of the Month - Aquamarine



Photos: www.minerals.net

If you can picture the cerulean blue waters of the Mediterranean, you will understand why the birthstone for March is named Aquamarine. Derived from the Roman word "Aqua," meaning water, and "mare," meaning sea, this pale blue gem does indeed resemble the colour of seawater. The ancient Romans believed that the Aquamarine was sacred to Neptune, the god of the sea. Early sailors wore aquamarine talismans, engraved with the likeness of Neptune, as protection against dangers at sea.

The association with water led to the belief that the Aquamarine was particularly powerful when immersed. Water in which this gemstone had been submerged was used in ancient times to heal a variety of illnesses of the heart, liver, stomach, mouth and throat. Aquamarines were also used to reverse poisoning and to aid in fortune telling.

The Aquamarine is a member of the beryl family. Beryl is a mineral that crystallizes within large grained igneous rocks on the earth's crust. It varies in color from clear to vibrantly colored gemstones such as the Emerald. Beryl was used as far back as 2,000 years ago to correct vision, and it continues to be used today in the manufacture of eyeglasses. It is a very hard mineral, making the Aquamarine a durable gemstone for use in jewelry.

Aquamarine varies in color from blue-green to a light sky blue, but gems containing green are often heat-treated to remove this less desirable color. The majority of Aquamarines, unlike other gemstones, are flawless. It is a relatively abundant gem, the largest deposits being in Brazil, but other sources of Aquamarine are in China, India, Australia, Africa, and the United States.

(Source: www.about-birthstones.com)

8. Club Outing to Ollie Roan

This outing, originally planned for 24.02.2019, had to be postponed due to Ollie not being ready for the PGMC collecting crowd. However, Willem is in contact with her and will announce a new date as soon as possible.

Ollie has a variety of lapidary material available for sale. The rock sizes vary from big to small and will be sold per kg. This is very old stock and the quality incomparable with today's field trip yields.

Getting the Best Gem Yield from a Crystal by Jeff R. Graham



This large aquamarine crystal from Pakistan weighs 186 cts and measures 26.5 mm × 54.8 mm × 11.2 mm.

It has a good, solid medium-blue color. Other than the growth line and a little spot next to it, it's clean.

Cutting rough crystals for the best gem yield is a critical skill for faceters. Not surprisingly, novices often ask me how they can figure this out. I'm going to walk through my decision making process, using the very nice aquamarine crystal above.

Take Your Time

Examine the crystal very closely and take your time. Don't make any fast decisions. If you're not sure, just give it as long as it takes. Sometimes, I think about a piece of rough for a long time. Once, I mulled over a piece of spinel for a year before I cut it. I finally found the design it needed.

This quality piece of aquamarine will yield very high in about any shape(s) you want. However, you still face a lot of choices. While some depend on the best mass yields, others depend more on what you want to get out of the crystal, particularly what shapes.

Consider the Gem Shapes



I say shapes because I often opt for a lower yield to get a shape or design I want or that I know will work especially well for the rough. Some shapes just sell better than others. Always consider this factor. I usually try for shapes such as trillions, square cushions, and cushions. I also try for matched sets of about any type.

In the photo left, I've marked a basic set of outlines I would cut from this aquamarine. Keep reading. You might find some of my approaches to this crystal surprising.

Choosing the Direction of Your Cuts



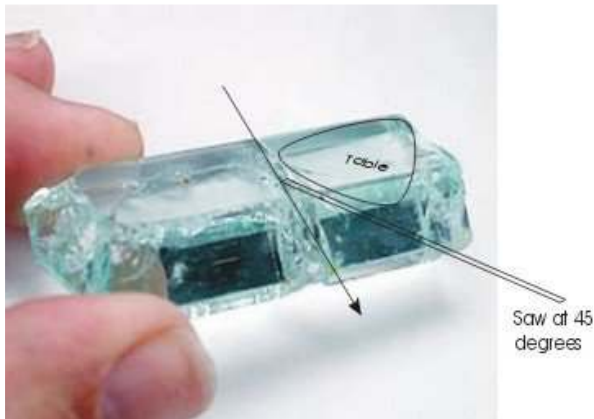
For this rough, the first cut is obvious. Cut the crystal along the growth line.

You'll get two pieces: one a little over a $\frac{1}{3}$ of the length of the rough (left), the other a little under $\frac{2}{3}$ of the length (right).

The main stone outlined on the left side section is a trillion. (For this gem, I'd use my Signature #4 design, one of my favourites for aquamarine).

Take a look at the following close-up photo of the left side section. Notice the flaw in the middle of the crystal, where the arrowed line starts. (The larger right section is clean, without flaws).

Now, notice what looks like a flaw beneath the arrowed line? That's only a reflection of the actual flaw, which is oriented and running at about 45° towards the crystal's edge. The point of the pear outline also happens to point to the crystal edge that way.



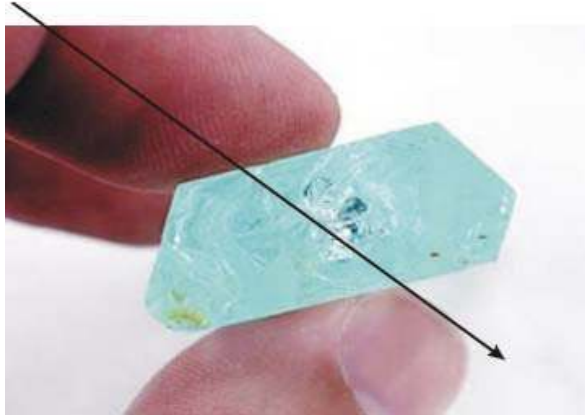
If you look at the left photo, you'll see that cutting at a 45° angle with a saw blade will just about preform the pear pavilion (on one side) and, of course, help point up the trillion bottom.

Note:

I rotated the trillion a bit to get a long side along the saw cut.

Due to the 45° cut, you'll get a pear quite a bit bigger than if you'd just cut at 90°.

Trimming Scraps can also Yield Gems



I'd use an ultra thin saw blade and trim the trillion on all three sides of the pavilion (and the pear on the second side).

The trimming won't leave large scraps. However, they could yield several **carats** of cut stones.

Depending on the gem design you use, the scraps from the trillion pavilion could cut a couple of carats each.

Cutting for the Tables and Pavilions

The pear's table is actually on the bottom of the crystal, as it appears in the photos. The trillion's table is on the opposite, top side.

Now, the next cut may surprise you. Go back and look at the photo with the shape outlines. Note that on the larger right section of the aquamarine, I've marked two square cushions and two rectangles. What you may not have guessed is how I'd trim the crystal and exactly where the stones' pavilions will be.

In this photo of the end of the crystal, I've marked where I'd cut. With a trim saw, I'd cut at about 45° through the middle of the length of the right section of the crystal. The tables of these stones will be at 4 o'clock and 10 o'clock, respectively. (The top of your computer screen marks 12 o'clock). This cut will yield much larger stones. However, inexperienced faceters may not even think of taking this approach.

For the two rectangles, I'd consider my Aqua Cisir cut. For the square cushions, I'd probably use my Nigerian Cushion. The Aqua Cisir design has a keel and would really yield well in this material. The cushion is just a classic cut.

Conclusion

I think cutting the way I've outlined would give you the best gem yield for this crystal. The gem designs I've recommended will help yields and also improve colours. Remember, take your time. Think about the rough before doing any cutting.



About the author Jeff R. Graham

The late Jeff Graham was a prolific faceter, creator of many original faceting designs, and the author of several highly-regarded instructional faceting books such as *Gram*