



# CAPE TOWN GEM & MINERAL CLUB

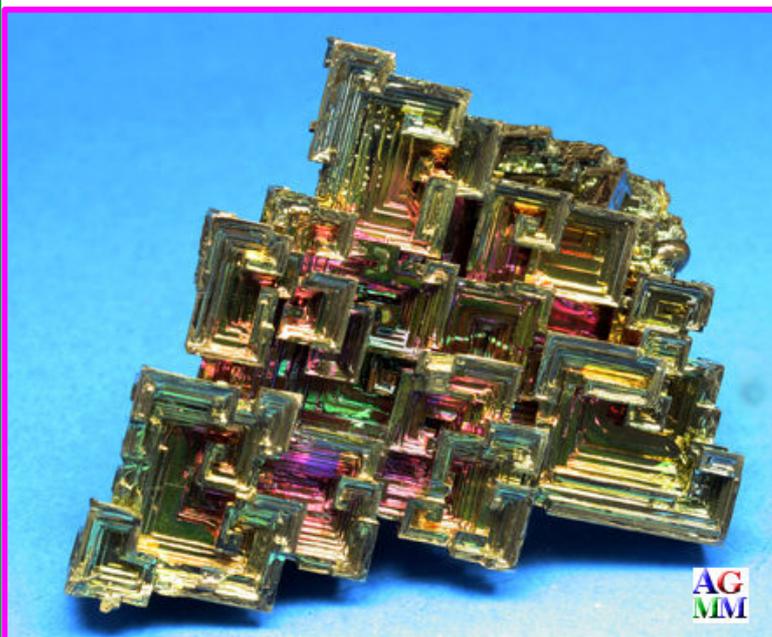
FOR THE STUDY OF ROCKS, MINERALS & CRYSTALS

## *mineral chatter*

THE OFFICIAL NEWSLETTER

### AUGUST 2014

DIARY	DATE	TIME	EVENT
	26		Workshop introduction course
AUGUST	2	10h00	Open Day – Minerals, gems and jewellery to view, buy or chat about
	9	14h00	Monthly Meeting: Show & Tell – your collection, cabs, or carvings
	16		
	23		The lapidary workshop can be opened on request.
	30		
SEPTEMBER	6	10h00	Open Day – Minerals, gems and jewellery to view, buy or chat about
	13	14h00	Monthly Meeting: The Real Gem Hunter: searching for ruby in Chantaburi – Jay Liebenberg
	20		
	27		The lapidary workshop can be opened on request.



Re-created Bismuth

### What's inside this month?

- *Committee Corner*
- *Events – past, present, and to come*
- *Bismuth*
- *Members' lapidary work – Our Club's Workshop Update*





## COMMITTEE CORNER

☺ *The rain on Open Day frightened off several of our regular visitors, and traders (who shall remain un-named!), but those who did attend found a warming fire and delicious hamburgers prepared by Margaret Jackson, as well as a good selection of items for sale. Two new members were signed up, so we welcome Sidney Bubb, and Johan de Meyer to our club.*

☺ *Jako Schonken was also at Open Day with his microscope to show and assist members and visitors with seeing the beauty of the tiny crystals that are to be found on many mineral specimens. We have now acquired the microscope that belonged to the late Trish Immelman who was a micromounting fundi. This microscope is available for members' use on specific occasions, and on Open Day.*

☺ *We are always looking for original items for our newsletter so if you would like to write an article on any topic related to our hobby, you are welcome to do so. We can edit the text and insert any photographs, or copy type a handwritten article. ☺ We would also like to feature club members' lapidary work or faceting in the newsletter. It doesn't matter whether you do your work at home or at the club. Please send a photo with a brief explanation to Jo showing your cabochons, carvings, or cut gems. We are also awaiting photos of those newly made spheres! ☺ How about sending us some more club group photos from your archives too? Several people said they particularly liked the one last month of the late Fr Tony Garman's 90<sup>th</sup> birthday.*

☺ **WORKSHOP** *To book to use the lapidary workshop copy both Rinda and Tracy in on an email to negotiate your preferred slot: [rindadt@gmail.com](mailto:rindadt@gmail.com) and [tracyhannath2@gmail.com](mailto:tracyhannath2@gmail.com) SEE ALSO "MEMBERS' LAPIDARY WORK" ON PAGE 5 BELOW.*

☺ **LAPIDARY MACHINERY** *We are occasionally notified of lapidary equipment that members of the public wish to sell. The list that Jo has is very out of date. Please let her know if you are interested in being notified when we receive such information. Please re-confirm, even if you think your name is already on the list.*

☹ *For those frequent Namibia travellers it is worth noting that South Africa's immigration laws have recently undergone an intense revision. "The concern about the growing issue of child trafficking has resulted in new requirements for adults travelling with children. Parents travelling with children will now be requested to provide an unabridged birth certificate for all their children. This applies even when both parents are travelling with their children, and it also applies to foreigners and South Africans alike. When children are travelling with guardians, these adults are required to produce affidavits from parents proving permission for the children to travel. We understand these regulations are effective from September 2014 but knowing the delays, apply now." SAARP*

☺  
**EXCO**

*"A club is its members, not its committee, which must be an aide to those members."*



## EVENTS



**PAST - MONTHLY MEETING 12<sup>TH</sup> JULY. What a Gemboree!** A team from Cape Town organized this year's Easter Gemboree that was based at Klein Pella. We must congratulate them on the great success they made of the event from all aspects: the venue, the places visited, the social activities and ultimately the excellent final income figure. At this meeting Malcolm gave an overview of the event, which covered everything from a tour of the date farm, the two accommodation venues, the surrounding scenery, indignant owls, mining of red Orange River quartz crystals, and total sell outs by the Witbank and Pella artisanal miners, including their rockery at the information hut at the

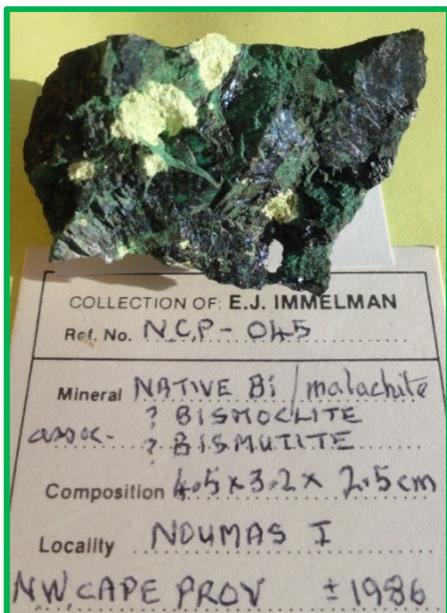
start of the Pella 4 x 4 trail! Really all that was missing at this meeting were close up photos of the mineral specimens themselves that were acquired during the event, as cameras tend to get forgotten in the heat of those moments. (18 members attended)

**TO COME – MONTHLY MEETING 9<sup>TH</sup> AUGUST. “SHOW & TELL”.** For this meeting we are asking members to bring anything related to our hobby to show and tell us about. Have you started a new theme in your mineral specimen collection, have you faceted some gemstones, or made a sphere, or cut your first cab in the workshop? We hope to have a lovely cross section of items to see and hear about. Please bring some items, however few, or else just come and see what our members have been doing if you do not personally use the workshops.

**TO COME – 13<sup>TH</sup> SEPTEMBER MONTHLY MEETING. The Real “Gem Hunter”:** searching for ruby in Chantaburi – Jay Liebenberg. Earlier this year, Jay went on a buying trip to the ruby capital Chantaburi in Thailand and to the stone cutting heaven of Jaipur in Rajasthan, India. She has kindly agreed to spare us time from her busy schedule to come and tell us all about her exciting travels.



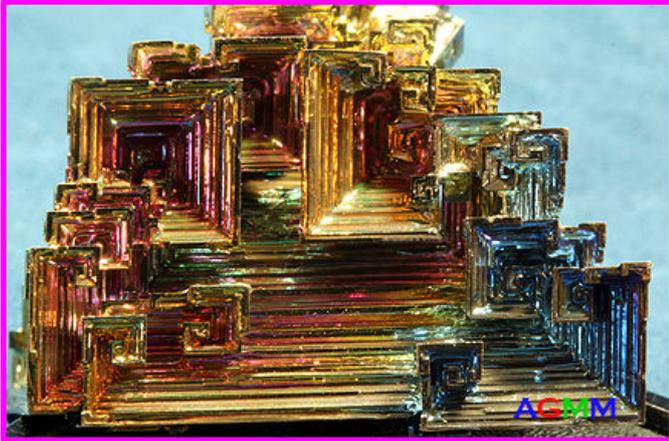
## Bismuth



This specimen on the left hand side of the page was on sale at our Open Day in June, and marked “bismuth”. Which bit of it is the bismuth I wondered, is it the yellow, green or metallic part of this specimen? One tends to think of bismuth in the pharmaceutical sense, and guesses that it is probably the yellow. Further investigation told me that the bismuth is part of the overall matrix with a “peacock ore” appearance, a bit like bornite. The yellow is possibly bismutite. This specimen was found by the late Ted Immelman in 1986 at the Noumas 1, (or Blesberg), mine in the Northern Cape near Steinkopf. Bismuth is a native element that most commonly forms massive lumps as opposed to crystals, and is very heavy for its size when held in the hand because of its high density. By coincidence the Amazing Mineral Museum in America had bismuth as its main topic in a recent newsletter. The photo on

the front page of this newsletter shows what can happen when bismuth is melted down and the crystals re-created in a controlled environment. The Amazing Mineral Museum goes on to say:

*"BISMUTH. It is an amazing element. An amazing metal. Stop for a moment and study the image on the front page of this newsletter - the amazing crystal formations and beautiful colours. These are natural. They are the natural formation of bismuth when melted and natural crystal formation is allowed to happen in a controlled environment. Let's explore the Story of Bismuth..."*



*You have probably used bismuth in your everyday life and don't even know it. With properties similar to lead, but without the highly toxic nature, bismuth is widely used as the new substitute for lead in fishing weights and ammunition. That pearly finish that your new fingernail polish gives your nails....credit that to bismuth. The pearl-like finish on your new car....you guessed it, bismuth. And due to its low melting point, bismuth has been used in fire retardation systems like sprinklers for years, in addition to serving as the breaking material in fuses. With bismuth as the circuit link,*

*when the electrical current gets too high and too hot, the bismuth melts at a fairly low temperature of around 500 degrees F and breaks the circuit in the fuse, preventing electrical overload and potential fire.*

*But there is something else that uses bismuth that, when you need it, you are most likely not interested in what is in it. But bismuth is the "BIS" in Pepto-Bismol®! Just read the label, it's right there on the front. Bismuth subsalicylate. The chemical nature of this is well above our pay grade to define for you scientifically. But anyone who has used Pepto-Bismol after that big night at a Fiesta....you can thank bismuth for relief from that over-indulgence.*



### **Diamagnetic**

*Another important property is that bismuth is diamagnetic, meaning it will push away from a magnet. The strength of the force generated by bismuth to push away from a magnet is demonstrated in a special YouTube video that we produced to demonstrate this important property and others.*

<http://www.youtube.com/watch?v=ECut1VAytYo&feature=youtu.be>."

On the internet there are also several sites that tell you how to grow your own bismuth crystals. Firstly you have to get some 99.9% pure bismuth.....BUT, however attractive and fascinating these re-created crystals are, I am certainly not melting down my natural specimen! JW

### **References:**

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- Cairncross- Field Guide to Rocks and Minerals



## Member's Lapidary Work "NEWS FROM THE CLUB WORKSHOP"

The lapidary workshop has been humming. Two thirds of our new members who signed up for the workshop have already completed their cabochon course, with the last group scheduled to start on 26 July. It is very rewarding seeing them so chuffed with their completed projects.

We do encourage existing members who have not yet tried their hand at lapidary projects to sign up for the cabochon course. With our new workshop times it is now very convenient to make use of the club's facilities at a time most suited to members.



**Malcolm Hughes smoothing and then polishing his cabochon**



**Lerui's finished cabs**

The cabochon course is designed to teach members the safe use of most of the machines in the club's workshop. This two day course starts with a theoretical intro into lapidary work, with emphasis on cabochon making before going into the workshop for the practical side. Two main shapes of cabs are created by the members, from cutting their own slab, to final polishing of the finished artwork. When members complete this course they can sign up for other courses that will be available from time to time, e.g. creating eggs and spheres. Also on a future menu is the creating of a box that can be used to store your little treasures in. Please let Rinda or Tracy know what project you might like to try.

Some very nice rough is available to buy for using in the club's workshop. We have several blocks to cut slabs from; these blocks can be clamped very conveniently in certain saws to ensure straighter cuts. A lot of work has gone into the workshop behind the scenes, mainly thanks to Malcolm, Jan and Antonio. (RdT)



The saw blades from Covington arrived this past week. We hope to have them both in action soon.

Tracy says: "When I got into the workshop to set up for the first session of the cabochon course for new members I was so happy to see Malcolm and Rinda there as well, and to know that I had some friends as backup if I felt I needed a "shove" from their experience in the workshop.

There was just a small glitch to start with as I could not find pliers to adjust the one cutting saw, but Seth came to the rescue and got one from his tool stash in his car. Thanks Rinda for being there to show them how to dop their stones while I was overseeing the sawing and nibbling of the stones. After that it was plain sailing! Lerui, Hendrika and Seth finished beautiful cabochons, and the next Saturday they were back there to complete another cab.

The bug has bitten!!

God Bless

Tracy"

**Remember the Show and Tell on 9<sup>th</sup> August when we hope a goodly number of members will bring work they have been doing to show us.**



### CONTACTS

**TRADERS:** Contact Marion on 084 6060 233 or [mcoleman05@gmail.com](mailto:mcoleman05@gmail.com)

**LIBRARY:** Available on Open and Meeting days. Ask Carol or Duncan to unlock for you.

**WORKSHOP:** [rindadt@gmail.com](mailto:rindadt@gmail.com) and [tracyhannath2@gmail.com](mailto:tracyhannath2@gmail.com) Please write jointly to both addresses.

### YOUR 2014 COMMITTEE

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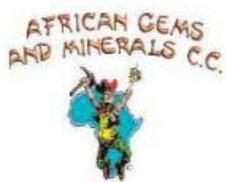
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**WANTED TO BUY:** Small portable trim saw. Phone **Martine.** 021 794 1870 after 12:00.

**Advertising is free to members. Contact Jo to place an ad.**

### 2014 MEMBERSHIP FEES

**TOWN MEMBERS:** **Single:** R300 e mail ( R35 extra if newsletter is posted because you do not have e mail)

**Family:** (Principal/partner/with dependent children under 21) R390 e mail (R35 extra if newsletter is posted)

**COUNTRY MEMBERS:** (Living more than 50km as the crow flies from central Cape Town) **Single:** R225 e mail (R35 extra if newsletter is posted because you don't have e mail)

**Family:** (Principal/partner/with dependent children under 21) R275 e mail ( R35 extra if newsletter is posted)

**STUDENT/AFFILIATE:** (Age under 25, registered full-time at *bona fide* college or university, or dependent child of existing member) R150 e mail only

**ONCE OFF JOINING FEE FOR NEW MEMBERS:** (R20 per application, single or family)

**If you ask for the newsletter to be posted and you do have e-mail you must please pay an additional R75.**

Club bank a/c for payments is ABSA - Table View - account no. 40-5975-5822 Payments must be made to THE MINERALOGICAL SOCIETY OF SOUTHERN AFRICA not CT Gem & Min. Please make a direct payment where possible, and identify your transaction with your name as the beneficiary reference.

### LINKED SOCIETIES

We exchange newsletters with the following societies. Should you be interested in reading any of them please contact Jo who will e-mail them onto you. If you wish to join any of the clubs, or attend their lectures and outings, please contact the person listed below:

**WE ALSO RECEIVE EMAIL COPIES OF NEWSLETTERS FROM THE OTHER FOSAGAMS CLUBS. SHOULD YOU WISH TO HAVE THEM FORWARDED TO YOU, ASK JO TO PUT YOUR NAME ON HER SPECIAL MAILING LIST.**

USA and UK FACETING GUILDS – Contact Duncan (embo@telkomsa.net) to join the faceting group if you want to receive these newsletters. This is open to Cape Town Gem & Mineral Club members only.

THE CAPE NATURAL HISTORY CLUB - Visit [www.capenaturalhistoryclub.co.za](http://www.capenaturalhistoryclub.co.za) Contact Sheila 021 782 1620

ASTRONOMICAL SOCIETY - Contact Lia at [xtrahand@iafrica.com](mailto:xtrahand@iafrica.com)

FRIENDS OF SA MUSEUM - Contact Maxine Davies 021 481 3913 (Wednesdays & Fridays only) [samfriends@iziko.org.za](mailto:samfriends@iziko.org.za)

W.CAPE BRANCH OF THE GEOLOGICAL SOCIETY OF SA - website: <https://sites.google.com/site/gssawcb/>

The opinions expressed in the articles above do not necessarily reflect those of the Executive Committee. We welcome all contributions related to our hobby and everyone is welcome to send articles for inclusion in the Mineral Chatter.

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