



THE
MINERALOGICAL SOCIETY
OF
NEW SOUTH WALES INC

C/o School of Natural Science
B.C.R.I. Parramatta Campus University of Western Sydney
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Website: www.minsocnsw.org.au

NEWSLETTER

OCTOBER 2014

MEMBERS PLEASE NOTE: The October Meeting will be held on the SECOND Friday of this month because the first Friday is before a long weekend.

The October Meeting will be held on Friday the 10th of October 2014 at 7.30 p.m. in the LZG14 lecture theatre on the ground floor of Building LZ in the Science campus of the University of Western Sydney on the corner of Victoria Road and James Ruse Drive in North Parramatta.

The program will comprise short talks on the : -

Mt Tennyson Mine Field Trip and Minerals Identified

Members are invited to bring in specimens collected during the Mt Tennyson Field Trip to display to the Meeting and if you have a short wave UV lamp, please bring it along in order to display scheelite and powellite.

The talks will be followed by a lecture to be given by Graham Ogle on : -

‘Långban, Sweden – Rarity and Fluorescence’

FORTHCOMING MEETINGS

Subject to circumstances some changes to the following schedule of program subjects and speakers may have to be made in due course.

- November 7th: Lecture by Brian England on : - **‘Kulnura Zeolites’**.
Display of member’s Kulnura specimens and discussion.
- December 5th: **Christmas Social.**

Society Meeting programs have been established for the first eight months of 2015.

- February 6th 2015: Lecture by Vera Munro-Smith on **‘Cobalt Mines of the Cloncurry District’**
- March 6th 2015: Report on the **2015 Tucson Show**, speaker to be confirmed, and a lecture by Paul Carr on **‘The Burning Question of Mt Wingen – When did the Fire Start?’**
- April 10th 2015: (The Meeting will be held on the second Friday. April 3rd is Good Friday).
Minitalk on : - **‘Tenorite; Not pretty but interesting’**.
Lecture by Jeff Davis on **‘Applications of Mineralogy in Forensic Science’**.
- May 1st 2015: Member’s Mini-Auction.
- June 12th 2015:
(Second Friday) Lecture by David Colchester and John Chapman on : -
‘Mudgeeite. Establishing a New Mineral.’
- July 3rd 2015: Member’s Forum on **‘Kingsgate Revisited’**. Overview of the history, geology and minerals. Member’s experiences, mineral display and discussion.
- August 7th 2015: A.G.M. and the Betty Mayne and Edna Walker Memorial Lecture to be given by Noel Kennon on : - **‘The History of Broken Hill’**.

FIELD TRIP REPORT

A report on the September 13th and 14th Field Trip to the Apsley and Phoenix mine sites near Oberon has been prepared by Ed Zbik and will accompany this Newsletter.

NEXT FIELD TRIP: November 22nd & 23rd

Part Social and part collecting.



Itinerary (November 2014)

- 22nd Hartley Vale. (View & Collect).
- 22nd Lithgow still being planned. (Visit).
- 22nd Night at Bathurst.
- 23rd Bathurst: Sommerville Collection. (Visit).
- 23rd Sunny Corner. (Collect).

Saturday 22nd November: Visiting the Hartley Vale shale deposits and touring the remaining infrastructure of the old shale works. This is one of the few sites where “Jet” was found. Jet is referred to as the "black jewel" or Queen Victoria’s mourning jewellery, but in essence it is of organic origin and can be polished. Jet is a variation of one particular type of coal - lignite.

If rubbed, jet gets charged. Saturday afternoon activity is still being planned.

For more details, please register with Edward Zbik by e-mail: etzed@optusnet.com.au or by SMS message to 0401 538 480 simply saying “registering for Nov FT” with your e-mail address.

The SOCIETY COMMITTEE

PRESIDENT:	Dieter Mylius	Tel: (02) 9477 1060
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	David Colchester	Tel: (02) 9449 3862
	John Rankin	Tel: (02) 9482 7474
	Edward Zbik	Tel: (02) 9638 6586

WELCOME

Welcome to new member Alan Melbourne of Bonville, N.S.W.

AUSTRALIAN MINERAL PIGMENTS REQUESTED

NZ artist, Gary Fremantle, is visiting Australia as "Artist in Residence" at Thirning Villa, Ashfield. He intends to paint Australian scenes using various Australian pigments produced by grinding local minerals. If you have any pieces suitable such as azurite, malachite or other minerals which you would like to sell, he may be contacted on 0497 518 332 or at *gvfz@netscape.net*. He already has a range of iron oxides.

THE SEPTEMBER MEETING

At the commencement of the Meeting Ed Zbik addressed the members to describe the arrangements for the forthcoming **Field Trip** over the 13th and 14th of September. The Trip would be visiting the Apsley mine between Rockley and Bathurst on the Saturday and then the Phoenix and Lund mine sites which were about 3-4 kilometers south of Wiseman's Creek along the Soldiers Hill Road on Sunday. The sites were old copper mines and the road over the last few kilometers to the second sites was rough and suitable for 4WD vehicles. A two-wheel-drive vehicle could possibly get to the sites but not if there had been rain over the previous few days. The Trip party would meet at the hotel in O'Connell at 10.00 a.m. staying overnight in Oberon and assembling for Saturday evening dinner at the RSL.

Ed then took some time to describe his recommendations for the Society to expand its field trip activities by applying to change the status of the Society from that of a fossicking club to an organization allowed to enter commercially active mine sites and collect material unsupervised. To do this the Society would need to indicate compliance with and knowledge of a number of regulations.

Ed Zbik referred to the Russell Society in the U.K. (Website available) which also provided detailed guidelines and policies for groups to obtain permission to enter sites and that organisation's policies would be useful for the Society to examine and modify to local requirements.

The suggestions made by Ed Zbik and an outline of the regulations that the Society would need to become compliant with and which would need to be developed had been indicated in notices he had prepared and which had been circulated to members with the previous Newsletter. These regulations included Work, Health and Safety protocols, Work Safety Method Documentation and Safety Operations Procedures. Much of the investigation and collecting information on regulations had already been done however Ed repeated his request for a few volunteers to join the field trip sub-committee.

The first speaker for the evening was introduced. At the August Meeting it had been found that the computer normally provided on the projecting system console which ran the screen projection system had been removed for repair. Accordingly it had not been possible to project images through the system although the speaker, Lin Sutherland, who had prepared a large number of images for his Betty Mayne/Edna Walker Memorial lecture proceeded as best he could and in spite of the setback provided a detailed description of his subject, 'Zeolites from India and other Flood Plain Basalt Mineral Suites'.

With the projection system restored to full operation Lin Sutherland had very kindly agreed to re-present his previous lecture, shortened and with a selection of the more notable and colorful images particularly of minerals.

Zeolites from India and other Flood Plain Basalt Mineral Suites

Lin Sutherland

Initially the speaker referred to the Betty Mayne bequest and that the Australian Museum has benefitted from the fund by the donation of money to purchase two large mineral specimens over the years. These were the pyrochlore and azurite disc specimens described in his previous lecture but this time with images of them fully displayed.

A number of images of the minerals seen at Tucson by Lin Sutherland on some of his visits were shown, Lin Sutherland noting that one did not necessarily need to go to India to see Indian zeolites. Then there were images of superlative Indian zeolites in the Albert Chapman collection the speaker pointing out the green colour in some specimens which he had previously advised were due to the presence of vanadium.

Thanks to his contacts with mineralogists in India the speaker was able to show a few images of quarries recently being worked and showing some of the minerals being found. The other areas of flood basalts in the World and minerals found in them previously described were referred to again, this time with the mineral images well displayed.

The speaker concluded by showing an image from the 2012 Tucson show of a large amethyst nodule from the Uruguay/Brazil flood basalt area. Advising that he had been pleased to put together all the images and information originally for the August Betty Mayne Memorial lecture Lin Sutherland suggested that Betty Mayne were she alive today would have been very pleased that the members had been able to view the zeolites this time around.

There were a number of other speakers scheduled to deliver short talks on a number of subjects and referring largely to specimens or instruments which they had brought in to display.

Jim Sharpe

The second speaker was Jim Sharpe who displayed two large specimens from the Prospect quarry site in Sydney collected at some time in the 1930s. One was a pectolite and the other almost water-clear calcite on prehnite with a dusting of pyrite. The speaker had in mind to offer the specimens for auction at the next Kids with Cancer sale but had no idea what they might be worth and accordingly had asked Arthur Roffey to speak to the Meeting about his experiences and knowledge of the Prospect specimens.

Arthur Roffey OAM

The next speaker advised that members might disapprove of his early collecting work since in first visiting Prospect about fifty years ago his intention was to obtain prehnite for cutting. This was soon after he had met Albert Chapman who had advised that in those days the easiest way to gain entry to the quarry was to make friends with the gate-keeper with the aid of a couple of large bottles of beer. Arthur Roffey had collected at Prospect for around the last fifty years about once every two weeks until the quarry operations closed about 2010. Whilst he had not retained very many of the specimens collected he had always been very impressed with the large number and variety of material which had come from the site. Not only prehnite, calcite, pectolite and rarer zeolites but some minerals such as pyrite and marcasite that one would not have expected to find in that association.

Prospect used to be a popular hunting ground for fossicking by lapidary clubs with in the earlier days little trouble in gaining access as long as the collectors behaved properly and caused no damage. Large amounts of material were collected there and it was unfortunate that it was now finished.

Graham Delaforce

The speaker briefly described a visit he had made to Mineral Hill in 1993. Starting off at 5.00 a.m. a party comprising himself accompanied by Ian Graham, Frank Aloe and another collector set off driving all the way there, collecting and then driving back, all in one day or actually getting home by 12.30 a.m. In working on the site in extremely hot conditions and damaging some of their tools a number of fine specimens, mostly of azurite were collected.

David Colchester

One of the properties of many minerals is that they may be radioactive due to the presence of radioactive elements. In the course of his work analyzing rock samples for U.W.S. David Colchester had decided to obtain a radiation detector and had acquired a geiger counter, now properly called a dosimeter.

He initially described the nature of radioactivity which comprises emanations of alpha, beta and gamma radiation and then the function of the dosimeter. The instrument would measure the amount of radiation over ten seconds, store the information and average out the readings over two minutes to display the amount in microsieverts per hour.

David Colchester had been testing various objects around his house and had found that outside in his garden the readings were about 0.08 - 0.09 microsieverts or 'background'. In his house which is built of brick the readings are about 0.12 – 0.18, the nearby bricks pushing up the level slightly. A few other objects brought in by the speaker to demonstrate were referred to. These included a gas lamp mantle which is impregnated with a small amount of cerium oxide which itself contains small amounts of other rare earth elements, some of which are radioactive. A small sample of monazite which is a rare-earth phosphate containing a few elements including thorium was demonstrated by the speaker. The particular sample gave a reading of 2.42 ms/hr compared to the background in the Meeting room which was 0.12.

Natural potassium is slightly radioactive since it contains a very small proportion of potassium 40, (about 120 ppm) which is radioactive although with a very long half-life. It follows therefore that foods containing potassium such as bananas are slightly radioactive and also therefore the human body. The speaker had not brought bananas to demonstrate but did have a laboratory canister of potassium nitrate borrowed from the university. This showed a slight reading of about 0.25 ms/hr. He later noted that uranium is a fairly mobile element and tends to be accumulated by organic materials such as tar. Black high-organic soils in the Northern Territory had been found to be quite radioactive.

The dosimeter demonstrated by David Colchester had cost him about \$160. The Geiger detection component comprised a small chamber with neon, bromine and a small amount of argon gases and a wire down the centre. When a photon of radiation passed through the detector it briefly ionises the gas and a small pulse of electricity passes across and is recorded.

Geoff Parsons

Geoff Parsons had brought in a larger radiation detector to demonstrate. He described having visited Austria three times and over the course of the visits had looked for mineral dealers. On one occasion he was able to acquire a specimen of parsonsite, a lead uranium phosphate. The specimen was not particularly attractive but the speaker had possibly been interested in the novelty of a mineral with his name. He finally answered a few questions about the nature, and danger, of radiation.

Jo Collas

Jo Collas had brought in a few unusual quartz specimens that he had collected during the Society Tambar Springs trips. Some he had recovered from the side of a road cutting about 20 km north of Binnaway on the Coonabarabran road. He presumed that the specimens might reflect the western extent of the flow of the Garrawilla Volcanics. The crystals displayed positive and negative forms and the speaker had speculated that the negative crystals may have been formed by calcite which was also in the seam. This led to the query of where the calcite had come from and the speaker was still curious about this and unfortunately could not provide an answer.

Jo Collas concluded by advising members when out fossicking to attend to the Bingo game call of 'Eyes down and looking'. He felt that it was a fact of fossicking life that even if a patch of ground has apparently already been searched by other fossickers only a few seconds before, they have not got it all and it may pay the last person to keep looking.

Vicki Golin

The speaker had some items from the Geological Survey arrive in her letter-box recently and felt that there was information which might be useful to impart to the members. These were some geological maps of parts of NSW and some of the whole state. She indicated a website which could provide more information, - www.resourcesandenergy.nsw.gov.au/gdw which members might care to examine. The Survey appeared to be in the process of making all its maps available through the Internet.

Brian Holden

The next speaker proceeded to regale the Meeting with a series of anecdotes about his collecting experiences and also from his working around the country which had included periods spent in the north of Queensland, New England and elsewhere in NSW. His collecting interest had been generated when a relative on holiday in Tasmania in 1962 was able to fill the boot of his car with specimens of copper and lead minerals from the Mt Lyell mine. Upon his return he gave specimens away to a number of his friends and relatives. The speaker had brought in two small specimens to demonstrate and which represented the start of the speaker's collection. They were a diminutive garnet from Thackaringa Station and a terminated rather sugary-looking beryl crystal from the Triple Chance mine. They had been purchased for \$5 which in those days represented about two thirds of the speaker's week's paper round money.

One anecdote from the speaker picked up on the radioactivity subject. A friend of Brian Holden's now in Torrington but then living in Brisbane many years ago used to work in the New England area and would visit a little place called Elliots Wolfram mine and a nearby small site named Monazite Corner, famous for large masses of clove-brown monazite. The friend would collect boot-load amounts of the monazite to take home. In later acquiring an early type of dosimeter and going to his shed to check his monazite the friend got only about half way across his yard before the instrument went off its scale. The friend ended up wrapping the whole collection of monazite in lead flashing originally recovered from a roof for scrap and took the whole lot to a tip. Brian Holden speculated that there is now a tip somewhere in Brisbane which is glowing in the dark !.

The speaker suggested that some members might remember a mineral shop in Five Dock owned by a fellow whose name Arthur Roffey supplied, Norm Paterson, then living in Croydon and who used to publish the Australian Lapidary Magazine. The speaker had visited Norm Paterson's house once to notice the biggest pectolite specimen in his front garden, also supplied by Arthur Roffey who had obtained it in turn from Demetrius Pohl.

Brian Holden's Triple Chance beryl crystal had been purchased from a crowd then in Kogarah, 'Australian Lapidary Supplies'. These days there are usually mineral shows being held at intervals throughout the year and almost always with substantial displays of mineral specimens but in the 1960s if someone wanted to see a display a visit to the Australian Lapidary Supplies shop was not to be missed.

In referring to the Australian Lapidary Supplies company Brian Holden speculated that it would probably have long ago closed but Arthur Roffey was again able to provide some information. The company was still in existence, now primarily as a jewellery supplier. The original owner was living at Silverwater and had sold all of his excess stock, mostly to Peter Beckwith.

Bob Meyer-Gleaves

The speaker had brought a fist-sized piece of unspectacular-appearing heavy material to show to the Meeting. He had discovered it some two years previously when visiting a friend whose grandfather had collected rocks and who had lived in the Gregory Downs area in Queensland. The speaker had found the specimen in the 'jungle' which was the friend's backyard. Since it was quite heavy he had asked Jim Sharpe to analyse it and had been told that it contained ringwoodite. This is a rare magnesium-iron silicate, $(\text{Mg,Fe}^{2+})_2\text{SiO}_4$, and has previously been found in quantity only in meteorites. The only definite terrestrial occurrences have been as inclusions in diamonds.

Lin Sutherland

Lin Sutherland offered some more information on ringwoodite which has been named after Ted Ringwood, an Australian mineralogist who was also notable for having invented Synrock and who studied high-pressure minerals. The mineral was named by Ray Binns then at the University of New England. Ringwoodite was first identified in the Queensland Tenham meteorite in 1969 as a number of small crystals. It is a high-pressure or high-impact variety of olivine and in view of the pressure needed to create it is presumed to be formed within the Earth's mantle at a depth of about four hundred kilometers.

John Chapman

The final speaker for the evening related a whimsical story of 'Opportunity Lost'. This concerned his early years as a geology field assistant working in southern Africa and in 1970 was in what is now Namibia. As illustration for his talk a number of images of mineral sites in Namibia were shown, notably of Tsumeb, one of the World's greatest mineral localities. Other sites mentioned with images shown were Guchab where diopside was first discovered, Berg Aukas, source of important vanadium minerals such as descloisite and Okurusu from where fine fluorite has come.

The sites were generally less than an hour's drive from where John Chapman was working in field camps in the bush. He was already interested in minerals but in spite of this in his spare time over the two years that he was in Namibia he played rugby and drank in pubs!. Another pastime over this period were visits to the Etosha Pan Game Reserve over weekends.

One of the field camps was at Rietfontein between Grootfontein and Otavi near a ridge of hills with a series of mines. One of the speaker's colleagues investigated some of those sites and once found a diopside crystal about two and a half centimeters long. The area was opened up many years later, after Tsumeb had long since closed, as a specimen mining venture conducted by Society member Ben Nicholson. In conclusion John Chapman showed a series of images of Tsumeb specimens in various collections and displays, all unfortunately not collected by him over the period he was in the country.

FORTHCOMING EVENTS

CENTRAL COAST GEM SHOW

Presented by the Central Coast Lapidary Club.

Gems and Treasures at Tumbi Umbi. Saturday 11th & Sunday 12th October at the Mingara Event Centre, Mingara Recreation Club, Mingara Drive, Tumbi Umbi, Central Coast, NSW. Saturday 9am to 5pm, Sunday 9am to 4pm.

"Come along and see the many exhibitors and sellers of jewellery, gemstones, fossils, minerals, beads, pearls and meteorites.

There will be quality locally made and imported jewellery and an array of tools, equipment and findings for the professional and hobbyist."

For more information please contact Campbell Maynard on 02 4362 2246 or email cclapidary@optusnet.com.au

ANNUAL SEMINAR OF THE JOINT MINERALOGICAL SOCIETIES OF AUSTRALASIA

The 37th Combined Mineralogical Societies of Australasia **Mineralogical Seminar** this year is being held in New Zealand over the 31st of October and 1st of November 2014 at the Te Rau Aroha complex, 48 Seaforth Road in Waihi Beach, east of Waihi, North Island. The Seminar is being presented by the New Zealand Micro Mineral Group and will be held in conjunction with and immediately after the N.Z. 32nd Micro-Mineral Symposium which is being held at the same venue over the 24th to 28th of October 2014. The Seminar is the main annual meeting for amateurs and professionals interested in minerals and is rotated annually around Australia with a meeting every 7th year in NZ.

The Seminar theme this year is '**Born of Fire. Minerals of Volcanic and Geothermal Processes**' and the program will comprise 1½ days of mineral presentations and a ½ day of mineral sales. There will be the Seminar dinner at the Waihi Beach RSA. Cost is NZ\$80 for the Seminar and NZ\$30 for the dinner.

Information may be obtained from Rod Martin on 021 205 2141, home phone (09) 4445 463 or e-mail : - nzsailor@xtra.co.nz

**The NORTHERN DISTRICTS LAPIDARY CLUB
GEM SHOW and EXHIBITION**

A Gems, Jewellery and Minerals Exhibition and lapidary competition will be held at the Beecroft Community Centre, on the corner of Beecroft and Copelands Roads, Beecroft. Sales of gemstones, minerals, slabs, jewellery, book stall, plant stall, and some machinery.

From Friday 24th of October, 9am – 9pm, Saturday 25th October 9am – 5pm and Sunday 26th October , 10am – 4pm. Admission: Adults \$4, Children \$1 Family \$8
Refreshments will be available.

CESSNOCK GEM AND MINERAL CLUB ANNUAL ROCK AUCTION

The Cessnock Gem and Mineral Club Annual Rock Auction of Fossils, Minerals, Crystals and Gems. Many interesting and rare specimens. On Saturday the 1st of November 2014 in the Cessnock Scout Hall, Corner Maitland Road and Henderson Avenue, Cessnock. Viewing from 12 noon, Auction commences at 12.30pm. Enjoy afternoon tea at the conclusion of the auction.

For more information telephone Alan 0416 233 071 or Doug (02) 4990 3837

Website: http://www.lapidaryworld.com/cessnock_gem_club Email : - cessnockgemclub@gmail.com

**THE PARRAMATTA and HOLROYD LAPIDARY CLUB
ANNUAL EXHIBITION**

To be held over Friday, Saturday & Sunday the 7th to 9th of November 2014.
From 9.00 a.m. to 4.00 p.m. each day. At the Clubrooms at 73 Fullagar Road, Wentworthville.

Competition, demonstrations of Club activities, rocks & mineral for sale, member's work for sale, demonstrations, children's activities, sand sieving, fossicking heap, refreshments.

Wheelchair access and plenty of parking

Contacts: Ray 02 9863 1273, John 02 9635 8218

**SPRING GEMCRAFT & MINERAL SHOW
by the CANBERRA LAPIDARY CLUB**

Over Saturday the 15th & Sunday the 16th of November. 10.00am to 5.00pm. In the EPIC – Mallee Pavilion, EPIC showgrounds, Canberra. Gem, mineral, jewellery & lapidary dealers. Minerals, fossils, jewellery, rough & cut gemstones, lapidary equipment & supplies, opals, beads & supplies. Displays of members' collections, free sessions on fossicking & gold detecting, capping, faceting and jewellery making demonstrations. Entry fees: \$5 adults, \$9 family, \$2 children/concession.

For more information telephone: 02 6260 5322 or Website <http://www.canberralapidary.org.au>

WINDSOR JEWELLERY, BEADING, GEM & MINERAL SHOW

Saturday 23rd & Sunday 24th November 2014 in the Windsor Function Centre
on the corner of Dight & Macquarie Streets, Windsor.

Saturday open from 9.30 a.m. to 5.00 p.m. & Sunday from 9.30 a.m. to 4.00 p.m.

Admission \$5, children \$1. Light refreshments.

SALES of jewellery, gemstones, beads, opals, mineral specimens from all over the world,
tools and equipment for lapidary and beading work, metaphysical and healing crystals.

Inquiries to Peter Beckwith on 0412 333 150.

MILTON LAVERS COLLECTION SALE

The very important **Milton Lavers Mineral Collection of Broken Hill minerals** is being offered for sale at the Ausrox/Crystal Universe showrooms in Port Melbourne, Victoria, over Saturday and Sunday, the 13th & 14th of December 2014. Mineral curators, Broken Hill collectors and gem and mineral club members who would wish to attend are requested to register by 1st December 2014 for security and catering purposes. Inquiries and registration may be made to the Ausrox/Crystal Universe Showroom by telephone (03) 9646 1744 or to rob@crystaluniverse.com.au

The Society has been asked to distribute information about the sale and a separate invitation and information sheet will accompany this Newsletter.

GEMBOREE 2015 HORSHAM, VICTORIA

AUSTRALIA'S 51st NATIONAL GEM, LAPIDARY, JEWELLERY AND MINERAL SHOW.

Presented by the Australian Federation of Lapidary & Allied Crafts Associations Inc. (AFLACA).

GEMBOREE 2015 is to be held in the Wimmera Events Centre on Longerenong Road,
Dooen, via Horsham, over Easter, the 3rd to 6th of April 2015.

Showcase displays of 1,000 + National Competition Entries, Demonstrations of gem cutting & faceting, lapidary work, enameling and beading. Gemstone identification. Trade stands of a huge range of gemstones, minerals, fossils, jewellery, beads, meteorites, lapidary equipment and dozens of tailgating stalls. Program of social activities, lectures and field trips. Camping catered for with powered sites.

Gemboree booklets, information and registration from gemboree@victoriangemclubs.asn.au
Information on accommodation and other information on the area from www.visitorhorsham.com.au
or call the Horsham and Grampian Visitor Information Centre on 1800 633 218
