



THE MINERALOGICAL SOCIETY OF NEW SOUTH WALES INC

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NEWSLETTER

APRIL 2016

The April Meeting will be held on Friday the 1st of April 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.

April 2016 will be the last month of the Society's 40th year since inauguration in May 1975. The first half of the evening program will be a **40th Year Commemoration** with a number of founding or early members of the Society invited to provide a few reminiscences, anecdotes and impressions of the earliest years. There will be a break at about 8.00 p.m. for a half hour when there will be a delivery of professionally catered refreshments which have been ordered in Asian and European flavours in hot and cold platters and in sufficient quantity to provide all members with the equivalent of a full meal. There will also be supplies of hot, cold and alcoholic drinks. No extra refreshment fee will be requested.

After the refreshment break the second part of the evening program will comprise a

Mineral Quiz presented by Ann & Noel Kennon.

SOCIETY MEETING VENUE CHANGE

The 40th Year Commemoration Meeting will be the last Society General Meeting which will be held at the Western Sydney University due to impending renovations and demolition of the LZ building. From May 6th onwards Society meetings will be held in the **Parramatta and Holroyd Lapidary Club** rooms at 73 Fullagar Rd, Wentworthville.

The Parramatta and Holroyd Lapidary Club has been in the same location for many years if not decades and on all street guides which have been examined the club building is actually marked, at the south end of Lytton Park, alongside and about mid-way along Fullagar Road. The road is parallel to and one block north of the Great Western Highway at Wentworthville. Members with internet access and who log on to the Lapidary Club website will find a small map of the Club location which if 'clicked' on will open up into a larger map of the area with the Club clearly marked.

FORTHCOMING MEETINGS AND PROGRAMS

Meetings will continue to be held on the first Friday of the months throughout the year.

May 6th : The annual May Member's **Mini-Auction** will be held at the May Meeting and at the new venue of the **Lapidary Club**. There may be a few announcements made at the commencement of the Meeting but otherwise the entire evening will be devoted to the Auction. The Meeting will start at the normal time and after any announcements the auction will commence immediately and will probably last about two hours.

So that an auction list can be prepared and distributed in advance please provide Jim Sharpe with a list of your specimens to be auctioned **preferably at the April 1st Meeting** or contact Jim by phone (02) 9871 2502 or by e-mail: *sharpejames@tpg.com.au*

Members wishing to sell specimens at the Auction are asked to limit the number to ten specimens each. If a member wishes to sell more than ten specimens they can give Jim Sharpe their list and it may be possible to include the extras. Over the last few years the auctions have been selling up to 80 specimens but this is up to the maximum that can be dealt with in one evening. The Society takes no commission on the sales.

In addition to the regular auction minerals can also be sold by silent auction. Members can bring in a tray of specimens to leave on a table accompanied by a bid form which will be provided. There will be no need to advise Jim in advance regarding the silent auction as the boxes will not be listed.

Please clearly label all specimens and boxes.

- June 3rd : Open night, interactive forum on : - '**Kingsgate Re-visited**'. Member's collections and re-collections from Kingsgate and other molybdenite mines in the New England.
- July 1st : Lecture on the **Hera Copper-Gold Mine at Nymagee** by Adam McKinnon.
(To be confirmed).
- August 5th : Society AGM followed by the Betty Mayne- Edna Walker Memorial Lecture : - '**Mineral Curiosities**' by Brian England.
- September 2nd : Lecture on '**Radioactive Minerals**' by Geoff Parsons.
- October 7th : '**4.5 Billion Years of Mineral Evolution**' by David Colchester
- November 4th : Lecture on '**Meteorites**' by Ross Pogson
- December 2nd : Christmas Social

FIELD TRIPS

The next Field Trip is to the Tuena area over the weekend of the 16th & 17th of April

Members traveling on Friday may visit some out-of-the-way localities. Camping at Tuena camping grounds. Alternate accommodation at Crookwell. This field trip is planned to include the Cordillera mine, (on Sunday to allow members attending the Canberra Rock Swop on Saturday to join the Field Trip the next day), also Mt. Costigan, The Adits, a scheelite locality west of Tuena and a silica gem quarry near Mt. Costigan. For background check AJM Vol 13 No 1 and Vol 13 No 2.

Permission to visit the Peelwood and John Fardy mines has been refused by the landowner due to some instances of property damage.

Members wishing to attend the trip please register for details with Edward Zbik by e-mail at etzed@optusnet.com.au or SMS to mobile 0401 538 480.

THE TOLWONG EXPEDITION

Negotiations and arrangements are continuing for the projected **Field Trip** to the **Tollwong mine** sites within the Morton NP to be held most probably over a weekend in May. The expedition will involve a three and possibly four-day bush camp in the National Park involving some distance to hike from camping to mines sites.

One of many hurdles that Ed Zbik has had to contend with is that the NPWS has required that people visiting the National Park for mineral identification, and not collecting, are required to have been granted a Science License by the NPWS. The license issued to Ed Zbik has a substantial number of requirements to be followed and has been granted under the provision that the Society members are conducting a scientific survey of mineral sites to identify the minerals present. In particular - **specimens collected by the Society expedition are under a NPWS License for research. Fossicking is prohibited in National Parks and infringements may result in heavy fines, imprisonment or both.**

Another stipulation by the NPWS is to restrict the size of parties entering a National Park for such research. To date there is a full complement of members who have registered with Ed Zbik to attend the expedition but given that subsequent trips may be arranged in the future interested members could discuss this with Ed. - Inquiries by e-mail at etzed@optusnet.com.au or SMS to mobile 0401 538 480.

The Australian and New Zealand Micromineral News

The Newsletter of the Mineralogical Societies of Australia and New Zealand Micro Mineral Group.

The latest issue of the **Australian and New Zealand Micromineral News** has two articles by Society member Noel Kennon on '*A Point to Ponder*', : - about the number of mineral species in anyone's collection compared to the total in the World, and on : - '*Crystallography for Micromounters, Part III - Crystal Geometry*'. The immediately previous newsletters also contain articles on the projects researched by the Society Micro-Mineral Group on the Minerals of Woodlawn and the Bunnan Zeolites.

The following links are to issues 10, 11 and 12 of the Micromineral News. All articles are extensively illustrated with crystal diagrams and micro-photographs taken by Group members.

<http://www.crocoite.com/amn/amn-10.pdf> : - Woodlawn minerals

<http://www.crocoite.com/amn/amn-11.pdf> : - Woodlawn minerals and Zeolites and Associated Minerals from Bunnan, Hunter Valley, New South Wales.

<http://www.crocoite.com/amn/amn-12.pdf> : - Articles by Noel Kennon

Save the Cliefden Caves

During his lecture on the Cliefden Caves to the Society at the February Meeting Ross Pogson made several references to the fact that the caves are under threat of being flooded by the building of a dam on the nearby Belubula River. Whilst the caves have not been opened to the public they are very extensive with many geologically significant features and important fossil deposits in the area which would be flooded.

A '**Save Cliefden Caves Association**' has been established to represent a broad coalition of locals, land owners, cavers, and environmental groups mainly in central NSW to lobby the State Government to cancel plans for a dam and declare the entire area protected. There are a number of websites with information on the caves and the groups set up to lobby for preserving them. Another conservation group is the Australian Speological Association, (ASF). Some of these groups are inviting donations and signatures to petitions towards the lobbying efforts.

Quote from the website: 'ASF Inc is an Environmental Organisation registered by the Office of Environment and Heritage and the Australian Taxation Office. ASF's Karst Conservation Fund (ASF Gift Fund) receives tax-deductible donations in support of projects relating to ASF's conservation and environmental objectives.'

The ASF is hosting the 17th International Congress of Speleology (17th ICS), '*Speleo 2017*', to be held in Sydney next year.

Further information can be accessed through the Websites or e-mail karstfundinfo@caves.org.au or campaign@savecliefdencaves.org.au

New Book available from Hesperian Press

Hesperian Press of W.A. publishes books on Australiana History, including a number of mining and mineral publications. They have a new book available on the **Sons of Gwalia** goldmine at Leonora. A description from the publishers is as follows : -

From Wales to Gwalia

A Swansea editor and his Australian goldmine: by Alwyn Evans

‘A long awaited history of the Sons of Gwalia goldmine at Leonora. Assiduous research into the Welsh and Australian origins of this famous mine by Alwyn Evans for a thesis, now modified for general reading has resulted in an essential reference for any and all interested in WA mining history. An appendix on the exaggerated role of Hoover is of interest as an independent analysis divorced from the adulatory propaganda.

ISBN 978-0-85905-630-4, (2016, New), A4, heavily illustrated – b&w and colour, well referenced and indexed, 184pp, 515 grams, \$50.00* + POST

Mailing address : - Hesperian Press, PO Box 317, Victoria Park, W.A 6979
w:www.hesperianpress.com e: books@hesperianpress.com’

Notes on the Rehabilitation of Mining Sites in New England

The Derelict Mines Program (DMP) is administered by the NSW Department of Industry, Skills and Regional Development within the Division of Resources & Energy (DRE). The DMP promotes and advises landholders and managers about rehabilitation and remediation of derelict mine sites in NSW. It reports that the following areas among others are being rehabilitated in 2016.

Shaft filling projects will be undertaken around Emmaville common and NPWS and State forest land around Tingha again (both are tin mining areas). The DMP website also indicates others areas of interest to mineralogists which are due for rehabilitation or being examined for such work to be undertaken. These include Sunny Corner and Hill End.

Further information may be obtained from the website : - derelict.mines@industry.nsw.gov.au

The SOCIETY COMMITTEE

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	Edward Zbik	Tel: (02) 9638 6586
	E-mail:	etzed@optusnet.com.au

The MARCH MEETING

At the March meeting Ed Zbik provided details of forthcoming **Field Trips** and also handed out nine newly-granted **Safe Work Methods Statement certificates** to members. The certificates are important to indicate a member's awareness of a range of safety aspects in visiting mine sites and important for the Field Trips officer to be able to assure mine or property managers or owners with whom he may be negotiating to visit a working site that members are certified. Registration to visit working commercial mines and quarries may specifically state that only certified members can attend.

Dieter Mylius reported that the **Society Micro-Mineral Group** would be meeting the next Saturday. Any members interested in attending the meeting who had not already indicated their attendance were invited to do so. Since the Group meetings are usually held in a member's house the number of people attending needed to be known in advance.

Dieter Mylius complimented all the members who had brought in a large number and variety of calcite specimens to illustrate the first talk of the evening: -

'Mineral of the Month - Calcite'

Calcite is found virtually everywhere, with smaller amounts as the polymorph aragonite and with much smaller amounts of another polymorph vaterite. All are chemically calcium carbonate but with different crystal systems, calcite being trigonal, aragonite orthorhombic and vaterite hexagonal. Calcite is found in association with many rocks being a common gangue mineral in ores but most calcite in the World is in the form of limestone and marble. Notably limestone in numerous locations has been readily infiltrated by water which has carved many elaborate cave systems. Calcite occurs in many colours depending on the presence of trace minerals although its pure colour and the streak of the crushed mineral is white. As a carbonate calcite will dissolve in virtually any acid.

Calcite occurs in very many forms and to illustrate this Dieter Mylius referred to a book written and illustrated by a German mineralogist, Victor Mordechai Goldschmidt, (1853 – 1933) which contained over 2,240 drawings of calcite crystals. (*ATLAS DER KRYSTALLFORMEN (9 Vol)*). *'A great classic work of crystal morphology originally published over a 10 year period (1913-1923). Approximately 250 pages per volume, - 9 volumes combining text and plates'*. The largest single crystal of calcite ever found was over 250 tons.

Calcite is quite a soft mineral, crystals would be easily scratched and since it has three perfect cleavage planes any damage to a specimen is likely to readily break it along a plane. Many specimens although not all, will fluoresce in a range of colours, red, orange, white, yellow and sometimes blue and occasional specimens will phosphoresce. Calcite is a very important and useful mineral commercially with large amounts of limestone and marble mined every year as an essential component of cement and lime but also to cut into building blocks, tiles, slabs and bricks, for use as a dimension stone, ornamental gravel for drive-ways and for statuary. Large amounts of limestone are used as a flux to smelt steel and other metals and other uses are incorporating small amounts in paper-making and as members visiting the Mudgee limestone quarries were told by the managers, some of their product was used as a stock feed supplement. Other uses include as an abrasive and as a material to neutralize acids.

Amounts of very clear optical grade calcite called Iceland Spar have been found, (not only in Iceland, other sources include Mexico, the southern U.S. and China). As a clear mineral with strong double refraction it has uses in optical instruments.

Dieter Mylius concluded his talk by again complimenting the impressive display of specimens brought in by members and asked John Chapman to introduce the main speaker for the evening.

John Chapman was pleased to welcome Peter Buckley to a Society Meeting again and reminded members that Peter had given a lecture to the Society before on Mineral Exploration. (March 2006 'How to Find an Ore Deposit'). The speaker had spent a number of years working in Broken Hill before moving to the Geological Survey in Sydney and then moving with the Department to Maitland. As a result of promoting the development of an iron pisolite deposit near to Cobar in which he found the Department was not interested Peter Buckley left the Department to form his own company to develop the resource. Since then he has moved on to other companies and projects, many overseas and latterly including India but also as would become apparent, in Liberia.

'Blood Diamonds of Liberia'

Peter Buckley

Peter Buckley initially described something of his work after leaving the Geological Survey. The Cobar iron pisolite project had run into problems of processing due to the presence of too much fine-grained alumina in the ore and he then moved on to look at other iron mining projects in Queensland and Victoria. Then he was contacted by a person in India whom he had met through a trade delegation and who offered him a job with Vedanta. The company is about the sixth-largest iron company in the World and has operations in many continents. By accident or good fortune the speaker ended up running the exploration programs for the company for everything other than oil or gas. This led Peter Buckley to travel to Liberia to look at iron ore prospects.

(The Vedanta Group company is one of the world's largest global diversified natural resource majors, with operations across zinc-lead-silver, oil & gas, iron ore, copper, aluminium and commercial power).

The speaker suggested that many people would think of Liberia in terms of very serious troubles that it has undergone over the years and as an example the speaker showed a brief video of some very violent and brutal events that occurred. The video included a recorded statement by a local 'warlord' and some narration about the historical background to the country which was formed by liberated African Americans and African Caribbeans in the early 1800s. One feature of the social structure in the country is that the people still see themselves as 'American Liberians' and 'Liberian Liberians', i.e. native, although Africans of slave descent comprise only about 5% of the population. Government instability from 1980 with various changes occurring led to seriously increasing tensions with attempted coups.

At that time in the mid-1980s there were a large number of American and other companies operating in Liberia and with talk from one or other of the native Liberians of nationalizing the country's resources much concern was generated and somehow someone came forward to destabilise the nation and cause a civil war. This was Charles Taylor, currently serving a life sentence in The Hague for war crimes. Many of the charges against Taylor were for his promotion of destabilization in neighbouring Sierra Leone. This is where the story of the blood diamonds originates. Most of the substantial diamond production in west Africa has come from Sierra Leone although there are mines in the north-west of Liberia with a much smaller production. There is also a small amount of gold mining.

Charles Taylor funded his military actions substantially through the sale of diamonds. Many people were press-ganged into working on the mines and Taylor infiltrated Sierra Leone and destabilised the country to have access to the diamond areas. Diamonds actually mined in Sierra Leone were transported across the porous border with Liberia and sold as Liberian diamonds.

A number of images were shown of parts of the country indicating the severely primitive conditions, with many buildings showing bullet damage. Getting around is quite difficult. Many roads were very challenging, especially bridges. Images of the capital Monrovia shows that it did not fare much better and remains largely without mains electricity and running water. A number of views of the capital were shown, the speaker pointing out various features such as a building used by the U.N. at the end of the civil war who found that the building they were using as their headquarters belonged at that time to Muammar Ghaddafi who was a substantial arms dealer. Most of the arms used in Liberia during the military conflicts were supplied by Ghaddafi in return for diamonds.

Since the speaker was in Liberia primarily to examine iron ore prospects most of his work and images taken were relevant to his prospecting including examining existing and abandoned mining sites, mining areas, geophysical surveys and views of the heavily forested countryside. He was however able to travel to some of the diamond areas and images were shown of the primitive workings. In asking any of the locals working whether they were finding diamonds the answer was always an emphatic “No”. The locals would take any visitors to be possibly government officials and would not want anyone to know if they were being successful.

Another local feature that Peter Buckley noticed in travelling through parts of Liberia where there was diamond and gold mining being conducted was that the traveler could always tell in coming to a village or small town whether it was a ‘diamond town’ or a ‘gold town’. In the gold town the visitor could always buy a cold beer because in a gold-mining area there was usually a small constant amount of gold production and a small amount of money coming in. In the diamond town the feature was either feast or famine. Diamond production would not be constant and if diamonds were found there would be a great party. This was not however a daily occurrence. The knowledgeable traveler intending to visit a diamond town would need to call ahead, buy both an amount of beer and some petrol for the owner of the generator and wait for it to cool down.

English is the official language in Liberia but not always a simple means by which to communicate. Some difficulties could arise in speaking with a Liberian using pigeon English, an Indian colleague using Indian English and the speaker using Australian English. Security is another problem and a view was shown of a vehicle with its battery chained up to prevent its being stolen when the vehicle was stopped in traffic.

Although Peter Buckley had been in Liberia to examine iron ore deposits which were his main area of work he had managed to get to and examine a certain amount of the diamond mining areas. In respect of the subject of his lecture he spent most of the later part of it dealing with a description of the diamond areas and associated infrastructure, or what passed for infrastructure in the country. At the end of his lecture there were quite a number of questions.

FORTHCOMING EVENTS

CANBERRA ROCK SWAP 2016

The Canberra Rock Swop, organized by the Canberra Lapidary Club is being held in the camping ground at Wagtail Way in the EPIC showground alongside Northbourne Avenue in Canberra over Saturday and Sunday the 16th and 17th of April from 8.30 am to 5.00pm each day.

Fossickers, dealers and tailgaters. Camping available. All dealers and campers must register.
Crystals, minerals, rough & cut gemstones, opals, fossils, jewellery, refreshments.

More information from : - www.canberralapidary.org.au
Norm Menadue, Show Convenor Ph : 02 6258 6631, or mobile 0407 718 347
or e-mail : nmenadue@optusnet.com.au
Mail to Canberra Lapidary Club, PO Box 577, CURTIN ACT 2605

GEMBOREE 2016 ULVERSTONE, TASMANIA

AUSTRALIA'S 52nd NATIONAL GEM, LAPIDARY, JEWELLERY AND MINERAL SHOW.

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

To be held in the Ulverstone Showgrounds on Flora Street, Ulverstone, north coast of Tasmania
over Easter 2016, Friday March 25th to Monday March 29th.

A number of half to full day field trips are planned during the Gemboree.
The trips are to be confirmed but may include : -
Beaconsfield/Flowery Gully and the Beaconsfield Museum, adjacent to the gold mine.
Zeehan/Dundas visiting the mining area as well as local museums.
Calder: Visit to the Calder Gravel and agate quarries.
Penguin Iron Mines for Jasper and ironstones.

Contact: Ralph Bottrill, Field Trip Manager
Mineral Resources Tasmania
PO Box 56, Rosny Park TAS 7018
Phone: (03) 6165 4715 | Mobile: 0429 173 055;
e-mail rbottrill@mrt.tas.gov.au

Open Day at Blaxland Gem & Mineral Club

On Saturday 7th May 2016 from: 8:30am – 3:30pm at the
Progress Association Hall, The Valley Rd, Valley Heights.

Activities: Rocks and slabs for sale, gem cutting and polishing demonstrations, sausage sizzle.

The 26th Annual LISMORE GEMFEST

Presented by the Lismore Gem & Lapidary Club Inc over the weekend of the 14th & 15th May 2016
in the Lismore Showgrounds. From 9am to 5pm on Saturday and 9am to 3pm on Sunday.

'The biggest annual lapidary show in the country'

100+ tailgaters and stall-holders with substantial camping area, full dealer's pavilion.
Information on the Website www.gemclublismore.org.au.

Inquiries about tailgating and camping on-site at the Showground should be addressed to : -
Jan Thompson at P.O.Box 743, Lismore, NSW 2480.
Dealer and general inquiries can be sent to Bruce Copper at the P.O.Box 743 or by e-mail to
bruce.copper@bigpond.com

Blaxland Gem & Mineral Club Gem Show

Over Saturday and Sunday the 20th and 21st of August in the Glenbrook Community Hall
Great Western Highway, Glenbrook, NSW.

(Next to Glenbrook Theatre) Just west of Information Centre.

Displays of lapidary work and gem, mineral and crystal sales. Refreshments available.

8 am to 4 pm Daily. Entry: Adults: \$3 Children \$1

Information from : -

<http://www.freewebs.com/blaxlandgemmineralclub/BGMCshow.htm>

The 39th Joint Mineralogical Societies of Australasia Seminar.

Over the 1st to 3rd of October 2016. Hosted by The Mineralogical Society of Queensland.

Subject: "Mineralogy - Science and Passion"

Venue: Queensland Museum

Excursions will be held post Seminar.
