



**THE  
MINERALOGICAL SOCIETY  
OF  
NEW SOUTH WALES INC**

C/o School of Natural Science  
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**NEWSLETTER**

**OCTOBER 2017**

The October Meeting will be held on Friday the 6<sup>th</sup> of October at 7.30 pm in the clubrooms of the Parramatta and Holroyd Lapidary Club at 73 Fullagar Road, Wentworthville.

The program will comprise a mini-talk to be given by John Chapman on : -

**Mineral Deposit Types - Tin**

The talk will be followed by a lecture to be given by Mark Walford on : -

**‘Searching for Gold in Kalimantan’**

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**FORTHCOMING MEETINGS AND PROGRAMS**

November 3<sup>rd</sup>: The program will commence with a mini-talk to be given by David Colchester on **‘Ever heard of Quodons?’** which will be followed by a lecture on **Quartz** by Noel Kennon.

December 1<sup>st</sup> : **Christmas Social and Swap n’ Sell.**

The Christmas Social this year will comprise the program now established as in previous years with the evening being devoted entirely to the sale or exchange of mineral specimens and mineralogical material, books, magazines and equipment. There will also be the substantial and comprehensive range of snack food refreshments and drinks provided for which members attending the meeting will be asked to pay an appropriate fee. The Meeting would be officially opened at 7.30 pm possibly with a few brief announcements but the Club rooms would be open from about 6.30 pm to allow time for members with material for sale to get set up.

The Society does not hold General Meetings in January and the first Meeting in 2018 will be on February the 2nd. Meetings will be held on the first Friday of each subsequent month throughout the year.

February 2<sup>nd</sup> 2018: Lecture to be given on **‘Tolwong – Collecting for Mountain Goats’** by three speakers, Dieter Mylius, David Colchester and Ed Zbik

## WELCOME

Welcome to new member Ross Trevenna of Brinkin, N.T.

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## The SOCIETY COMMITTEE

PRESIDENT:	Dieter Mylius	Tel: (02) 9477 1060
	E-mail:	<i>dieterm@internode.on.net</i>
VICE-PRESIDENT:	John Chapman	Tel: (02) 9808 3481
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COMMITTEE MEMBERS:	Peter Beddow	Tel: (02) 8810 8446
	David Colchester	Tel: (02) 9449 3862
	Geoff Parsons	Tel: (02) 9548 3289
	Simon Tanner	
	Edward Zbik	Tel: (02) 9638 6586
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## WITH REGRET

With regret we have to report that Society member Jack Strange passed away early in August. Jack had been a member of the Society for very many years and had amassed a very fine mineral collection which he sold some years ago.

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## The SEPTEMBER MEETING

At the commencement of the Meeting Ed Zbik reported on forthcoming **Field Trips**. The next one would be the trip already notified to members, to Muttama over September the 16<sup>th</sup> to 19<sup>th</sup> during which Ed hoped that the party would be able to visit the McAlpine copper mine near Gundegai. Further details were provided on schedule sheets on the Meeting room reception table. Ed was also pleased and proud to announce that the latest recipient of a **Work Safety Compliance Certificate** had been his wife, Tereska.

Graham Ogle reported that there would not be a **Micro-Mineral Group** meeting this month since a number of people would be away but the next meeting would be held on Saturday the 6<sup>th</sup> of October.

With no further announcements to be made Dieter Mylius introduced the speakers for the evening. Ian Graham had been a member of the Society from the 1980s and in the course of his studies had acquired a PhD and is now Senior Lecturer, Geology, in the School of Biological, Earth and Environmental Sciences at UNSW.

To assist him in the lecture he was to deliver Dr Graham had brought two of his post-graduate students who would be joined by David Colchester to speak on aspects of the geology, mineralogy and crystallography at Manuka.

## **‘Quartz Crystals from the Manuka Silver Project, Cobar District’**

**Ian Graham, Angela Lay, Stephen Harris and David Colchester.**

In introducing his lecture Dr Graham drew member’s attention to an array of unusual quartz crystals which he had brought in to display and which had been found at the Manuka silver mine site. The mine is about 90 klm south-west of Cobar in central NSW and contains a considerable resource of silver ore. Mining and surface plant were established some years ago with operations ceasing for a period influenced by the price of silver. The more recent history of the site has involved the plant being utilised to treat gold ore from the Mount Boppy mine but latterly the MKR company (Manuka Resources Ltd) intends to start mining and processing the silver ore. Dr Graham described the geology and mineralogy of the Manuka site in more detail particularly noting the abundance of quartz crystals which he noted were quite difficult to separate from the rock strata. Finally during his introduction he showed the location of the mine, describing the access route of about 20 klm of dirt track which was fairly easy to negotiate normally but was particularly difficult in wet weather when vehicles had a disconcerting tendency to slip sideways.

The four speakers then took turns describing aspects of the Manuka geology, mineralogy and quartz crystal distribution and morphology.

Stephen Harris was asked to speak next and by referring to projected images of the exposed rock faces in the Manuka workings and to diagrams of the local geology of the Cobar Basin he described the site and the background to the mineralisation. In speaking again later during the lecture he described features of the quartz crystal morphology noting that many crystals appeared smoky due to the presence of inclusions including hydrocarbons or organic matter. He further described examination of the Manuka quartzes performed by cathodoluminescence and neutron activation analysis, (NAA), at Macquarie University.

Cathodoluminescence is an optical and electromagnetic feature in which electrons impacting on a luminescent material cause the emission of photons which can then be analysed and provide information about the material. Neutron activation analysis is a process used for determining the concentrations of elements in samples of any material or crystal. NAA is based on neutron activation when the sample is bombarded with neutrons, causing the elements to briefly form radioactive isotopes. Since the radioactive emissions and decay paths for each element are known they can be identified and the concentrations of the elements within a sample named and quantified. A particular advantage of the technique is that it does not destroy the sample.

David Colchester delivered his segment of the lecture initially advising about the correct pronunciation of the name Manuka which could be expressed with stress on the first vowel instead of the second, - (*Maan-uka*’ instead of the probably more usual *Man-ooka*’). He then described in detail the morphology of the quartz crystals being found at Manuka which included a number of very rare gwindel forms and many multiple and doubly-terminated examples. Gwindel quartz crystals are formed by the quartz growing along and slightly rotated around a crystal axis forming both right and left-handed twisted and tabular crystals. A large number of images were shown of the more unusual crystals with the speaker describing the significant differences.

Angela Lay contributed a substantial description of the local geology and mineralogy of the Manuka site and the suite of minerals found and describing aspects of the primary and secondary mineralisation. Stephen Harris and Ian Graham then delivered further lengthy and detailed segments of the lecture. In conclusion Ian Graham advised that the team expected to be providing an article on their work at Manuka to be published in the next issue of the **Australian Journal of Mineralogy**.

## FORTHCOMING EVENTS

### ILLAWARRA LAPIDARY CLUB INC

#### 2017 JEWELLERY GEMS & MINERALS FESTIVAL

Saturday November the 4th, 9am – 4pm, and Sunday November 5th, 9am to 2.30pm.

At Heininger Hall, Ribbonwood Centre, 109 Princes Hwy, Dapto

Entry: Adults \$3, children under 12 years free

Featuring: Gemstone Faceting, Cabachon Cutting, Silvercrafts, Jewellery Making and Valuations, Mineral Group, Club and Fossicking Information, Refreshments, Raffle and Kid's Games.

Dealers Selling: Lapidary Supplies, Minerals, Jewellery, Crystals, Findings, Fossils. Beads and Opals.

Enquiries: Lynne 0428310697

<http://www.illawarralapidaryclub.com.au/>

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The **NEWCASTLE LAPIDARY CLUB** is holding their annual

#### GEM and JEWELLERY FAIR

Over Saturday 11th (9am – 4pm) and Sunday 12th (9am – 3pm) of November at the Newcastle Basketball Stadium, 27 Young Road, Broadmeadow, Newcastle.

'There will be demonstrations of jewellery making, faceting, as well as many stalls selling a variety of tools, jewellery, craft and gems and minerals. This is new venue with more stalls, in an indoor, spacious well-lit location with plenty of all-weather parking. . Parking and Entry are free and there will be canteen facilities available throughout each day.'

Inquiries to Jeff Lewin on Ph (02) 4952 9611, Fax (02) 4952 8057 or email [newlap@gmail.com](mailto:newlap@gmail.com)

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#### WINDSOR GEM & MINERAL FAIR

Over Saturday and Sunday the 25<sup>th</sup> and 26<sup>th</sup> of November at the Windsor Function Centre, on the corner of George and Dight Streets, Windsor. Saturday 9.30 am to 5 pm, Sunday 9.30 am to 4 pm.

'Jewellery, gemstones, beads, opals, gem rough, carvings, fossils, crystals and mineral specimens from all over the World. Sales, dealers and displays. Entry fees \$7 for adults and children under 18 accompanied by parents are free. There will be a lucky door prize of a 9ct gold and sapphire pendant awarded after a raffle draw on Sunday afternoon. The Show is proudly supported by the Hawkesbury Valley Lapidary Club.'

For more information contact Peter Beckwith on 0412 333 150 or e-mail : - [peterrare@optusnet.com.au](mailto:peterrare@optusnet.com.au)

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