



# Mineralogical Society of Western Australia Inc.

## March 2019 Newsletter

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### Editorial

At all meetings the Society's microscope and UV lamp are available for use by members.

We finally have our own lockable cupboard located in the Lapidary Club premises. The library is currently housed there together with some equipment. To access the books please

see the Librarian, John Mill. John has also added several new books to the library obtained by Angela Riganti.

The policy that members may submit short advertisements free of charge will remain. Additionally, commercial advertisements will be accepted for a nominal charge.

## Resignation of our President and bringing forward of AGM

Stewart Cole resigned as President of the Mineralogical Society of WA on the 7<sup>th</sup> February 2019. Stewart was President for 12 years and Vice-president for 3 years before that. During that time the Society's membership grew from 5 to over 50. The committee would like to thank Stewart for his many years of service to the Society. The Committee decided that the Annual General Meeting will be brought forward to the 10<sup>th</sup> July so that members can elect a new President prior to the Seminar. In the meantime, Sue Koepke, as Vice-President will fulfil the role of President.

## Recent Activities

The General and Annual General Meetings of the Mineralogical Society of Western Australia Incorporated are now held at 7.30pm on the **second** Wednesday of every odd month at the WA Lapidary Club rooms located at 31, Gladstone Road, Rivervale (corner of Newey Street).

### General Meeting, Wednesday, January 9, 2019

The door prize comprising partially oxidised lead ore from Mundijong donated by Lee Hassan was won by Alan Longbottom.

Following the meeting Des Lascelles spoke on "*Fibrous minerals and the genesis of asbestos and tiger eye*". He supplied the following brief outline of his presentation.

Des graduated from London University with BSc Hons in 1964 and spent 5 years with De Beers Group in West Africa and then Australia before enrolling at Macquarie University to do research into the weathering of ultramafic rocks; he graduated with MSc in 1973. Des then worked at the Paraburdoo Iron ore Mine before moving to far north Queensland working as an independent consultant geologist in a wide variety of fields but mostly in iron ore. Des retired from full time employment in 1998 and enrolled part-time at UWA to do research on BIF and iron ore leading to a PhD. Des' thesis consisted of 7 sole-author published papers on BIF and iron ore and he was appointed an Adjunct Research Fellow at the Centre for Exploration Targeting at UWA. Des has been fully retired as a consultant since 2013 but continues to write research and review papers from home.

Fibrous minerals consist of elongated single crystals, most commonly amphiboles but many other minerals can also occur in a fibrous form.

Fibrous minerals occur in four main forms:

- Massive - Closely packed, randomly oriented, typical of many amphiboles in metamorphic rocks;
- Disseminated - Single fibres typically randomly oriented as inclusions in other minerals or more rarely as individual fibres in vugs;
- Parallel - Closely bound parallel crystallites – asbestiform - slip fibres and cross fibres – asbestos consists of very fine flexible fibres;

- Radiating - Commonly spheroidal or botryoidal crystallized colloform aggregates.

Riebeckite - sodium iron amphibole associated with BIF - forms as disseminated fibres and acicular to prismatic crystals in chert bands in BIF and also as massive completely replaced mesobands. All pass laterally into chert without riebeckite. Riebeckite is the result of Na metasomatism probably by the reaction of hot brine with the Fe-silicate precursor of chert. The riebeckite bands are vertically stacked as the hot fluid percolated upwards through recently deposited BIF. Asbestiform riebeckite is called crocidolite or blue asbestos and when weathered and pseudomorphed by goethite is called griqualandite.



Crocidolite – blue asbestos.

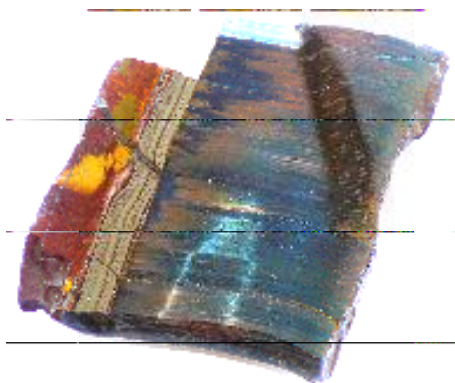


Silicified griqualandite

Photographs by D. Lascalles

Evidence suggests that asbestiform fibres grow under conditions of tension or negative pressure and not during compression.

Tiger eye is formed by silicification of weathered crocidolite and is a weathering product that only occurs in silicified saprolite.



Silicified partially weathered riebeckite asbestos, blue tigereye is unoxidized and commonly contains unaltered asbestos fibres, red tiger eye was oxidized and pseudomorphed by hematite prior to silicification. Photographs by D. Lascalles

### Special General Meeting, Wednesday, January 9, 2019

The General Meeting was immediately followed by Special General Meeting called to finally examine the proposed new constitution before submitting it to the Department of Mines,

Industry Regulation and Safety for ratification. The new constitution with minor amendments was accepted (27 votes for; 1 abstention; nil against) and submitted.

Our new Constitution was initially rejected because our name did not have Inc. after it. The amended version has now been accepted and applies from 23<sup>rd</sup> January (although they do not appear to have reviewed it further).

Many thanks to Lee Hassan for the hard work she put into organizing the rewrite of our old constitution.

### **Social function; river picnic, Saturday, January 19, 2019**

The ten members who managed to come to the evening picnic on the banks of the Swan River had an enjoyable time drinking, snacking and watching the city change colours as the sun set and the lights came on. It truly is a very pleasurable way of spending a few hours on a lovely summer evening.



Photograph by Allan Hart

### **Forthcoming activities**

#### **General Meeting, March 13<sup>th</sup>, 2019**

Steve Turner will talk on '*The Mineral Heritage of Newmont*'.

Stephen Turner is currently Chief Geologist, Asia Pacific Region, for Newmont Mining Corporation and based in Perth, Western Australia.

He graduated with a BSc (Honours) at the University of Western Australia (1979) and subsequently obtained an MSc (with distinction) through the Geothermal Institute at the University of Auckland, New Zealand (1986) with studies on a high-grade epithermal gold deposit at Mt Kasi in Fiji. He gained his doctorate at the Colorado School of Mines (1997)

with a field-based study on the giant Yanacocha high-sulfidation epithermal gold deposits in Peru.

Commencing as mine geologist at the Telfer gold mine in Western Australia and as an exploration geologist in the Eastern Goldfields, Stephen first moved offshore from Australia with exploration programs in Solomon Islands and Fiji, and then worked in Indonesia as Project Manager at Mesel and as Chief Geologist for South East Asia. During this period Newmont discovered three significant gold / copper–gold deposits at Mesel, Batu Hijau and Elang in Indonesia. Following a short spell with Chevron Minerals Stephen has worked with Newmont his entire career.

Following his doctoral study on Yanacocha Stephen stayed on in South America for several years as Chief Geologist running exploration programs throughout South and Central America. In 2001 Stephen moved to Newmont's Denver headquarters as global Chief Geologist, with a focus on generative exploration. In 2007 Stephen moved back to Perth as Chief Geologist for the Australasian region.

### *The Mineral Heritage of Newmont*

Newmont was first incorporated as a mining company in 1921 and has grown to be a global gold (copper and silver) producer and explorer. With the current merger with Goldcorp Newmont will reclaim the position as the top gold producer in the world. Although mining companies are often portrayed as destroyers of mineral specimens Newmont has a surprising heritage of mineral preservation and donations.

Colonel William Boyce Thompson, who initially founded Newmont, was a prolific mineral collector and provided the American Natural History Museum with a gift of 1530 mineral specimens which formed the core of their early collection. A further endowment on his death allowed the museum to fund additional mineral purchases.

The 'Newmont Azurite' from Tsumeb was described by New York mineral dealer Lawrence Conklin as the finest mineral specimen in the world, and valued by him at \$250,000 in 1977. It was closely followed by a Grass Valley gold specimen which he valued similarly. Both specimens were donated by Newmont to the American History of Natural History.

In 1999 Collectors Edge (Colorado) reached an agreement with Newmont in order to collect orpiment specimens from the Twin Creeks gold mine in Nevada. One of the best orpiment specimens was donated to the Carnegie Museum of Natural History.

Preservation of minerals is not the principal task of mining companies but when this happens it should be encouraged and applauded as a 'gift' to future generations.

### **Future talks planned**

- Susan Stocklmayer on amber
- Rod Berrell on replacement of fossils by opal

### **Mineral Market, March 17, 2019**

There will be a mineral market on Sunday March 17<sup>th</sup>. The market will take place at the WA Lapidary Club from 10am (9.30am for sellers) to 3 pm. The entry fee is \$2 with children under 12 free. Stallholder's fees are at \$5 per table. If you want to reserve a table(s) for selling, please contact Lee Hassan at [lee\\_notebook@msn.com](mailto:lee_notebook@msn.com).

### **Miscellaneous**



## Tamala Limestone walk on 7<sup>th</sup> March

The Geological Society of Australia is holding a field trip of the Tamala Limestone at Peppermint Grove. If members are interested the following information is available on the web "Next Thu 7 March at 4.30pm, GSA WA & PESA are offering a short afternoon fieldtrip to the classic Peppermint Grove outcrops along the Swan River - led by Dr Milo Barham (Curtin University). Tickets are available for both GSA members and non-members. Use this link to secure your ticket: <https://www.eventbrite.com/e/tamala-limestone-fieldtrip-classic-carbonates-pleistocene-sea-levels-tickets-56085796126>

At Peppermint Grove, several facies are well-exposed in a relatively small area, allowing for easy investigation of classic Western Australian lithofacies, and broader carbonate-dominated sedimentary features from a variety of paralic depositional environments (aeolian to shallow marine). Improved age constraints and investigation of facies-relationships at [#PeppermintGrove](#) allow for the generation of simple sea-level curves for this section and a broader discussion of [#Pleistocene](#) glacio-eustatic sea-level curves and their influence on [s#ediment](#) packages.

Attendees will meet at the Scotch College Boatshed and are encouraged to each bring a clipboard, stationery + compass clinometer, camera, handlens, snacks and water."

## Kalgoorlie sites

Earth Science WA has just published a Guide to sites in Kalgoorlie and surroundings

## 42th Joint Mineralogical Societies of Australasia - seminar update

### REGISTRATION

Early Bird rates (up to 10% discount) closed on 28 February 2019. Up to the end of February, 45 registrations had been received for the Seminar. Standard registrations rates apply from 1 March 2019. Go to <https://www.trybooking.com/ZVTK> and select the events you wish to attend; full guidelines on how to register are on the [MinSocWA website](#).

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MinSoc members (and like-societies)	\$150
Non-members	\$185
Students	\$75
Conference dinner	\$65
Micromount session	\$5
Swap and sell (price per table)	\$5
Registrations via TryBooking at <a href="https://www.trybooking.com/ZVTK">https://www.trybooking.com/ZVTK</a>	

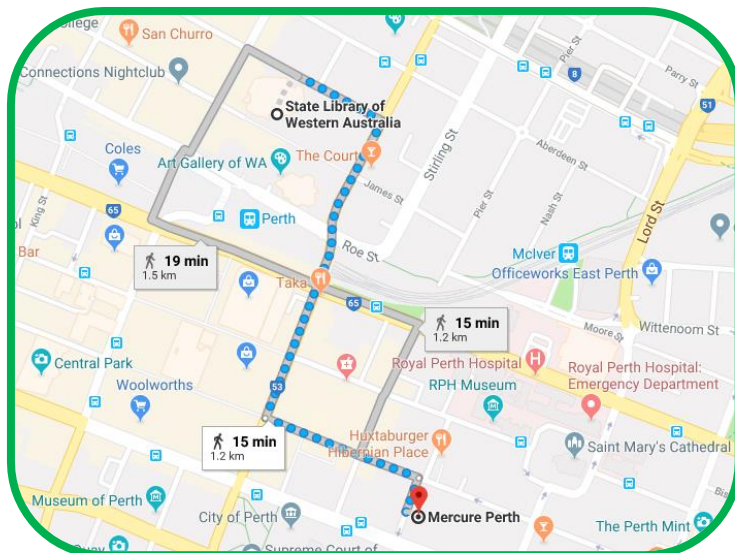
## ACCOMMODATION

Perth is a pricey city, but we have negotiated discounted accommodation at two **hotels**:

The [Mercure Perth Hotel](#) is located within the Perth CBD, and will host the **Seminar dinner** on the Saturday night.

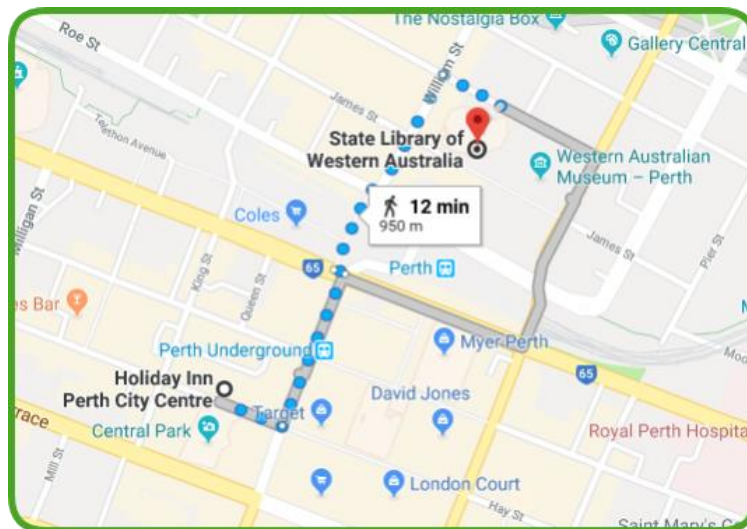
- Hotel special rates for seminar delegates are: Standard Room \$135 per room per night/ Superior Room \$155 per room per night – these are room-only rates, full buffet breakfast is available for AU\$20 per person in the Beccaria Restaurant.
- To obtain the discount please contact the Reservation Manager at [H1754-RE3@accor.com](mailto:H1754-RE3@accor.com) or ring **08 9326 7000** and indicate that you are booking for the 42nd Joint Mineralogical Seminar (**BLOCK CODE DEP310819**). Their friendly staff will look after you.

**MERCURE PERTH HOTEL - 10 Irwin St, Perth WA 6000**



The [Holiday Inn Perth](#) is also located within the Perth CBD.

- A Standard Room is available to delegates for AU\$149.00 per room per night (AU\$55.00 supplement applies for triple occupancy). The rate is inclusive of buffet breakfast (2 persons only).
- This rate is available for **30 August 2019 (Fri), 31 August 2019 (Sat), 1 September 2019 (Sun)**, but could be extended up to 3 nights pre- and post-seminar (subject to availability).
- WIFI complimentary for all IHG Rewards Members & Guests.
- Cancellations within 48 hours from arrival day will incur 1 night's cancellation penalty. Any no shows will incur 1 night's cancellation penalty.
- Guests can book by:
  1. using the link [Australasian Mineral](#) link (i.e. <https://www.ihg.com/holidayinn/hotels/us/en/find-hotels/hotel/rooms?qDest=778%20-%20788%20Hay%20Street,%20Perth,%20AU&qCiMy=72019&qCiD=30&qCoMy=82019&qCoD=2&qAdlt=2&qChld=0&qRms=1&qRtP=6CBARC&qIta=99801505&qGrpCd=AA1&qSIH=PURHS&qAkamaiCC=US&qBrs=re.ic.in.vn.cp.vx.hi.ex.rs.cv.sb.cw>



[ma.ul.ki.va&qWch=0&qSmP=1&setPMCookies=true&qRad=30&qRdU=mi&srb\\_u=1&icdv=99801505](http://ma.ul.ki.va&qWch=0&qSmP=1&setPMCookies=true&qRad=30&qRdU=mi&srb_u=1&icdv=99801505))

2. phoning the hotel on **08 9261 7200** > **Select 1 for Reservations** > **1 for New Reservations** - and mention they want to book the **Australasian Mineralogical Association** group rate.

### HOLIDAY INN PERTH CITY CENTRE - 778-788 Hay Street, Perth WA 6000

The nearest **caravan parks** to the State Library are:

[Perth Central Caravan Park](#) 34 Central Avenue, Ascot WA 6104

1300 760 060 or (08) 9277 1704, email [mailbox@perthcentral.com.au](mailto:mailbox@perthcentral.com.au)

Fits up to 26ft / 9m in length

10.5 km to the city. Direct bus route to the CBD (walk to Great Eastern Highway, several buses to the city); close to venue for Friday & Monday sessions (5.4 km; bus route on Great Eastern Highway to stop 14503 before Surrey Road, then 4 min walk)

[Karrinyup Waters resort](#) 467 North Beach Road, Gwelup, WA 6018

(08) 9447 6665, [kwresort@iinet.net.au](mailto:kwresort@iinet.net.au)

14 km from the city, close to Scarborough Beach and Hillarys Boat Harbour. Public transport: bus 424 or 422 to Joondalup Railway line, and then train to Perth CBD.

[Discovery Parks-Perth Airport Forrestfield](#) 186 Hale Road, Forrestfield, WA 6058

1800 626 677 or (08) 9453 6677 or [perth@discoveryparks.com.au](mailto:perth@discoveryparks.com.au)

18.8Km from city (20 minutes by car)

Public transport: Bus 294 to Cannington railway station and then train to Perth CBD.

Transport information is available at <https://www.transperth.wa.gov.au/>

Anyone intending to catch public transport to and from Caravan parks, and also wanting to attend night time sessions needs to check timetables (in particular time of the last bus), as well as frequency of buses.

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## FIELD TRIP – Murchison Mineral Field

### Key aspects

1. The field trip is open to delegates registered for the seminar.
2. Should the field trip be oversubscribed or some leases offer limited access, preference will be given to delegates who attend the **full** seminar (i.e. people who have registered for the 2 days of talks).
3. Miners Rights are mandatory and can be obtained from the Department of Mining, Industry Regulation and Safety (<http://www.dmp.wa.gov.au/Minerals/Miners-Rights-2427.aspx>). These are valid for life and cost 25 AU\$.
4. Some mine sites may not allow access to minors. No pets allowed on the trip.



5. This is a self-drive trip involving considerable distances on sealed and unsealed roads, and travel in convoy.
6. Participants are expected to book their own accommodation or camping (listing being prepared).
7. Insurance – participants are responsible for their own insurance, the Mineralogical Society of Western Australia does not provide insurance cover for field trip participants.
8. Personal Protective Equipment (PPE) – At a minimum steel cap boots and long sleeves required for mine visits.
9. All instructions provided for mine visits to be strictly adhered to.
10. Some leases may attract an access fee. This will be non-negotiable.
11. Field Trip leader – Rodney Berrell ([rodneyberrell@yahoo.com](mailto:rodneyberrell@yahoo.com))

## Dates and Proposed Field Locations

DATE: Tuesday 3 September to Tuesday 10 September 2019 – starts and ends in Perth.

Itinerary is subject to receiving permission to access the following locations:

- Orbicular Granite quarry TBC
- Poona Emeralds TBC
- DeGrussa Copper Mine Confirmed
- Thaduna prospects Confirmed
- Milgun Station, variscite TBC
- Dalgara Meteorite Crater TBC
- Mount Farmer pegmatites TBC
- Carlaminda Station, blue ‘lepidolite’ quarry TBC

As the above sites are located on exploration and mining tenements, access has to be approved by the relevant tenement/licence holder. Permissions to access the locations are being sought.

Currently proposed overnight stops are at Geraldton, Mount Magnet, Meekatharra, DeGrussa Copper Mine (the latter courtesy of Sandfire Resources), and Cue. Full itinerary will be circulated once the necessary permissions have been received.

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## MINERAL PHOTO COMPETITION

Don’t forget our **mineral photo competition**, coordinated by John Mill, with 3 main categories:

- Category 1 – subject less than 5 mm
- Category 2 – subject between 5 and 30 mm
- Category 3 – subject greater than 30 mm

Digital entries to be submitted by 30 June 2019.

Detailed guidelines are available on the [MinSocWA website](http://MinSocWA website), or contact John Mill at [millrock@iinet.net.au](mailto:millrock@iinet.net.au)

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## AUCTION

Thanks to those who have already donated items for the auction. We are still looking for more contributions – please email John Mill at [millrock@inet.net.au](mailto:millrock@inet.net.au) if you can offer some items.

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## New Members

Welcome to new members: Lena Hancock and Olga Blay

## Committee Members

The Committee for 2018/2019 is shown below.

President	vacant	
Vice President	Sue Koepke	0417990688
Secretary/Treasurer	Lee Hassan	93975197
Field Trip Leader	Rodney Berrell	0407081025
Committee Member/ Newsletter Editor	Vernon Stockmayer	92919043
Committee Member	Angela Riganti	92437472
Committee Member	Peter Willems	0467040409