

Mineralogical Society of Western Australia Inc.

To encourage mineralogical study by amateur and professional alike and, in so doing, discover, document and preserve the Earth's and in particular Western Australia's natural history.

Newsletter - May 2021

CONTENTS

Editorial	2
Past Events	2
School of Rock	6
Interesting Articles & Webinars	8
MinSocWA Simpson WA Update Project	8
Library	10
Treasurer's & Librarian's Report	11
Upcoming Events - Meetings, Workshops, Activity Days & Social Events	11
Perth Gem & Mineral Show (PGMS) Update	13
New Members, Membership & Meetings	14
Contacts - Committee Members	14
MinSocWA Links	14
Advertising & Advertisers	15

Mineralogical Society of WA Inc.

Meetings held at the WA Lapidary & Rockhunting Club rooms 31 Gladstone Road, Rivervale (corner of Newey Street) Registered Society No. A1009304P

EDITORIAL

Your Committee has been very busy behind the scenes planning and organising activities and events. It is unfortunate that our most recent planned activity, the Gingin fossil collecting trip, had to be postponed due to the snap Covid lockdown the day before the planned trip. Thanks to RodBerrell who organised the field trip and was to be our trip leader and guide for the day. That trip will be rescheduled. In the meantime, Dr Robert Madden of School of Rock, has written an article for this newsletter about the area as we were due to go there. A bit of prior reading for everyone who is planning to attend the field trip.

The Perth Gem and Mineral Show (PGMS) sub-committee has been busy with more planning to create the inaugural show in Perth planned for September this year. More details in the PGMS report in this newsletter.

This month's talk after the meeting on Wednesday 12th May will be presented by Dr Sarah Martin titled **Standing on the shoulders of giants: Mesozoic insects of Australia.** Note the date in your calendar and we look forward to seeing old and new members there.

Membership renewals are due soon. If your membership is due for renewal in June this year you will get an early-bird discount of \$5 (\$10 for spousal) if paid by 30th June 2021. If you paid your membership after 1st January 2021 your renewal is due 30th June next year.

A couple of important housekeeping updates and reminders. Please note that the Lapidary Club door must be locked from 7.15pm for security reasons. Please remember to do this and to sign the MinSocWA attendance list. Don't forget to register with your SafeWA Covid app at the main door or sign the Covid register on entry if you don't have the app. This is mandatory and a condition of entry. Please do not attend the meetings if you feel unwell.

Members are invited to submit adverts in this newsletter free of charge. Commercial adverts will be accepted for a nominal charge. If you are interested in submitting an advert please contact the <u>Newsletter Editor</u>.

Members are invited to make newsletter submissions of articles they have written and would like to share with our members and readers. Please share your submissions to the <u>Newsletter Editor</u>.

PAST EVENTS

GENERAL MEETING - Wed 10 Mar 2021

The March General Meeting was held at 7.30pm at the WA Lapidary & Rockhunting Club rooms. See the Minutes of this meeting for details.

A Silent Auction was held during the evening. Please see Librarian's report in this newsletter for details. Item 32 that was reported missing from the March silent auction had been delivered safely to Sue with all her other purchases, so it was with the rightful owner all along!

The door prize of a specimen of hematite from Koolyanobbing iron ore mine was kindly donated by Peter Willems and won by Lena Hancock.

Following the meeting there was a talk by Mike Freeman.

TALK - Wed 10 Mar 2021 Mike Freeman - Ellendale: The 'Fancy Yellow' diamond story

ELLENDALE'S FANCY YELLOWS – Report by Mike Freeman

Geologist Mike Freeman gave a presentation to MinSocWA on the Ellendale diamond mines covering the background to diamond occurrences, the Ellendale mining and describing the latest activities based on his experiences in the Department of Mines, Industry Regulation and Safety. The talk started with an overview of the exploration that started in the 1970s and, though some diamond-bearing lamproite pipes were located, the finding of the very rich Argyle pipe in 1980 stopped work on the Ellendale field for several years. However, 10 years later, after a change of ownership, Ellendale again became subject to a program of evaluation and marketing. In 2004, mining started on one of the two higher grade pipes, Ellendale 9 followed two years later on Ellendale 4. Although low in grade, typically something of the order of 5 carats per hundred tonnes, the presence of some remarkable yellow diamonds kept the operation economic.

Following a precipitate closure in 2015, the State Government's Minister for Mines excluded the area from the normal functioning of the Mining Act. Mike then led a team that called for expressions of interest from companies seeking to restart mining in the area. His team assessed the submissions, that had come in from all over the world, and presented recommendations to the Minister who decided to invite Gibb River Diamonds to apply for new mining leases and other tenements. As that company did not want the whole of the 138 km² that made up the lease, the Minister then invited India Bore Diamond Holdings to apply for any of the remaining area which it did. So, from a State perspective two companies sharing the responsibility of funding and developing new diamond mining operations turned out to be a bonus.

The talk then went on to look at some of the mineralogical and petrological idiosyncrasies of diamond formation, emplacement and eventually extraction in mining. Being carried up from the mantle at speeds of the order of 100 km/hour and having to cool rapidly to save the diamonds reverting to graphite presents some interesting concepts.

Mike described the extreme rarity of diamonds in volcanic pipes, commonly at a grade equivalent to that of one-hundredth of the grade of a gold mine, and of the difficulty in finding a pipe only a hundred metres across in huge exploration areas.

In summary, Mike noted that while restarting mining of the hard-rock lamproite pipes, in his opinion, would be very costly, there is excellent potential for some of the exquisite Fancy Yellow diamonds to come from the paleo-alluvial channels emanating from some of the 150 or so volcanic pipes in the West Ellendale diamond field. We will "watch this space".



Raw yellow diamonds (left) and cut yellow diamonds (right) (Photo credit: India Bore Diamond Holdings Pty Ltd)



Western lobe of Ellendale 9 open cut showing lamproitic tuff in the wall with Grant Group sandstones in the far wall. The sandstone was the host to the volcanic pipe. (*Photo credit: Mike Freeman, Nov 2017*)

ACTIVITY - Fri 16 Mar 2021 Visit to Murray Thompson's Desert Fire Designs Workshop

Report by Lesley Daniels

Murray Thompson, owner of Desert Fire Designs and a MinSocWA member, kindly offered to host an afternoon visit at his workshop allowing members to see a wonderful display of minerals and the workshop facilities where his beautifully crafted pieces are made. He is a very experienced geologist and a talented, creative artist in his work.

Murray's designs are unique and he aims to get the most attractive creation out of a piece of rough material rather than just quantity. This makes his uniquely crafted pieces very desirable as specimens or jewellery pieces. Many of the designs are inspired by the Australian desert and the beautiful coast of Australia. Look closely at the patterns in his creations and your mind will be taken to another place.

We had two sessions of small groups taken on a tour of the premises by Murray. Starting on the ground floor and looking at a stunning collection of well displayed specimens and listening to many of the interesting stories behind these specimens. Many of them unique and rare.

Moving upstairs for the second part of the tour we were treated to seeing even more unique specimens and designs and the very well organised workshop in which they are created. The second tour group were even spoiled with afternoon tea very kindly brought along by Barbara Donati. I think everyone was enjoying the tour and the socialising that we just about had to get kicked out of the door.

Thank you very much Murray for a delightful afternoon.

You can view some of Murray's creations and design at <u>Desert Fire Designs | Creators of limited</u> edition, world-class gem pieces

MinSocWA members enjoying the tour of the Desert Fire Designs workshop.











Photo credit: All photos by Lesley Daniels



SCHOOL OF ROCK - DR ROBERT MADDEN

Dr Robert Madden is an avid science communicator writing small geology vignettes, geology stories and educational resources on his social media account "School of Rock".

This segment of our newsletter shares some of Dr Madden's incredibly interesting articles and photos.

You can follow Robert's 'School of Rock' for more geoscience content on Instagram @drrhcmadden.

Dr Madden only writes about specimens he has personally seen and takes all his own specimen photos.

Cretaceous chalk beds of Molecap Hill in Gingin

Since you're heading up to the Gingin quarry it seems fitting that you should have a site specific vignette this month...



Seen here at 16x magnification and with a field of view of ~10 mm is a sand collected from the Cretaceous chalk beds of Molecap Hill in Gingin. The sand, to most, will likely not look like 'sand' and this is because this particular sediment is composed predominantly of glauconite. Glauconite is a mica-group mineral with a typically green colour often mistaken for chlorite. Glauconite is quite variable in colour though ranging from bluish-green (the Greek 'glaucos' meaning blue), to olive green, black green and sometimes yellow. Glauconite is an authigenic mineral (found where it forms) that is restricted to low-oxygen marine conditions. From a geological perspective glauconite is an important indicator of continental shelf settings where sedimentation rates are low or high-stand sea level conditions have occurred. Glauconite is so pervasive in these settings that glauconite beds form very important global stratigraphic marker beds, allowing the correlation of units and time intervals on huge scales.

Glauconite grains are the key component in 'greensand' or glauconitic sandstones. The pelleted form of the glauconite seen here is relatively common and likely formed due to their origin as biological faecal pellets. Such pellets tend to contain significant clays and porosity that permit the uptake of potassium from seawater and allow the complex geochemical mineralisation process to proceed to produce the glauconite pellets. Survival of these pellets suggests a low depositional rate at the time of their formation and suggest sea floor exposures of up to one million years to allow their accumulation en masse. Although giving a greenish hue to outright green colour at outcrop scale, on close inspection the more common blackish-green colour is prominent. At Molecap Hill the glauconitic greensands are relatively poorly exposed and found at the surface of gullies and scarps in association with the Santonian-Campanian (~83.6-72.1 Ma) Gingin Chalk. The greensand unit at Molehill Cap was mined for approximately 30 years from 1932 for use as a water softening agent, but now exposes an ~10-11 metre thick section of the greensand that contains a phosphate rich top section and is directly overlain by the fossiliferous Gingin chalk.



The outcrop clearly shows the weathered yellow-green exposures of the glauconite. (*Photo reference: mindat.org - https://www.mindat.org/photo-529837.html*)



Dr Robert H.C. Madden has been looking at rocks and minerals for the last 17 years. Robert's specialities lie in carbonate sedimentology and petrology as well as exploration geology, particularly porphyry-epithermal and MVT systems.

He is also a Fellow of the Geological Society of London and a Member of the Australian Institute of Geoscientists with a rich, global portfolio of geological experience.

Robert is an avid science communicator writing small geology vignettes, geology stories and educational resources on his social media account "School of Rock".

Follow Robert for more geoscience content on Instagram @drrhcmadden.

Dr Robert Madden Sedimentology research in Namibia

INTERESTING ARTICLES & WEBINARS

Please send interesting articles, reports or links to the <u>Newsletter Editor</u> for inclusion in the newsletter.

Title: An Intriguing Story: Poona and the Aga Khan Emerald Mine

Reference: Journal of Australasian Mining History, Vol. 17, October 2019

Link: <u>http://www.mininghistory.asn.au/wp-content/uploads/2.-EneverV17-compressed-1.pdf</u> (Article submitted by Angela Riganti)

YouTube videos by Matt Kohn - A large collection of videos organised into playlists according to topic. (*Link submitted by Ken Ireland*)

Link: https://www.youtube.com/channel/UC hMpllR88i2uZbQ4S1OPhQ

Geological Survey of WA Webinar Series:

Link: <u>http://www.dmp.wa.gov.au/Geological-Survey/GSWA-Webinar-series-27727.aspx</u> (*Link submitted by Angela Riganti*)

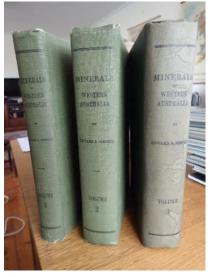
Mineral talks on YouTube:

Link: <u>https://www.youtube.com/channel/UCSIGYON34E_XN97bJAPqYuA</u> (*Link submitted by Stewart Cole*)

MinSocWA SIMPSON WA UPDATE PROJECT - April 2021

By Susan StockImayer

Last month a list of 7 preliminary mineral write ups was included, and since then we can add the following minerals; oosterboschite, urea, tranquillityite, ashburtonite, bityite, bavenite and moraesite. Contributors of this group are Vernon and Susan StockImayer. The total number of reserved minerals is now 82.



Some minerals have proven particularly popular, with 3 members requesting to write up tranquillityite. The draft of this mineral, prepared by Vernon, is printed in this issue of the newsletter.

Since the last Newsletter was circulated 10 new minerals have been added to the ongoing list of WA minerals which brings the total to date to 300. A valuable contribution you can make would be to read through the list of minerals and if you are aware of additional minerals, please send in the information with the literature reference. The list can be emailed to you or searched from our website.

Steve Turner has been photographing WA mineral specimens and we hope these will used in various write ups. If any readers of our newsletter have images pertinent to this project, we would like to hear from them. In some back copies of our newsletter some good

images have already been taken using our stereomicroscope, can these please be shared by whosoever took the images?

Please keep writing and for any questions in regard to the Simpson project contact your Committee members or Susan at the project <u>email address</u>. We would also like members to spread the word about this collaborative project and if you know of anyone who could or would like to contribute, please ask them to make contact.

Following is a draft write up of tranquillityite by Vernon StockImayer for the Simpson WA update.

Tranquillityite

Fe²⁺ ₈ ³ ² ³ ³ ² ³ ²⁴

Valid species – approved in 1971

Hexagonal

Nickel-Strunz 9.AG.90

Tranquillityite was first discovered in basalts collected during the Apollo 11 mission to the Sea of Tranquillity (Mare Tranquillitatis) on the moon in July 1969 and subsequently found in other returned lunar specimens and lunar meteorites. It was formerly recognized as a new mineral in 1971 and named after the Apollo 11 landing site.

Type material is deposited at the Lunar Science Institute, Houston, Texas.

Tranquillityite from the crystalline basaltic lunar rocks characteristically occurs as thin laths that are generally less than 100 microns with the coarsest individual laths found in samples of cristobalite basalt. It is optically homogeneous and free of exsolution or alteration products.

Preliminary structure data suggested that it had a hexagonal lattice with a calculated specific gravity of 4.7 +/- 0.01. However, there is one report that it is biaxial with a 2V of about 40° which is a contradictory comment.

It is semi opaque and grey in reflected light with a submetallic lustre, but thin crystals in strong transmitted light show a deep foxy-red colour with an average RI of between 2.11 and 2.13. It has been reported to be isotropic to weakly anisotropic and is non-pleochroic.

Tranquillityite, together with armalcolite and pyroxferroite, were long thought to be unique to the Moon with no terrestrial counterparts. Armalcolite and pyroxferroite were later identified from lunar and Martian meteorites and subsequently from terrestrial rocks.

Tranquillityite was identified in six dolerite dykes and sills from Western Australia and possibly has a more widespread occurrence. In most samples it occurs as thin, straight to slightly curved laths or sheaves of laths up to 150 μ m in length and 40 μ m in width. It is fox red in transmitted light and non-pleochroic. Tranquillityite is concentrated in late-stage interstices comprising myrmekitic intergrowths of quartz and K-feldspar which form between plagioclase laths, pyroxene, olivine, and ilmenite. It is commonly associated with other accessory minerals such as baddeleyite, zirconolite, apatite, and ilmenite.

The six samples are recorded as:

- (1) coarse-grained dolerite sills intruding the Eel Creek Formation along the northern margin of the Pilbara Craton
- (2) an olivine gabbro dike from the 755 Ma Mundine Well swarm in the Gascoyne Province
- (3) late-stage dolerite from the c. 500 Ma Table Hill Volcanics
- (4) ca. 525 Ma quartz dolerite sills intruding the Manganese Group from the south-eastern Pilbara Craton
- (5) late-stage quartz dolerite from the c. 1790 Ma Hart Dolerite suite in the 'Kimberley Complex'

(6) an undated dolerite sill intersected in drillhole Billy Goat Bore in the eastern Pilbara Craton

References

Lovering JF, Wark DA, Reid AF, Ware NG, Keil K, Prinz M, BunchTE, El Goresy A, Ramdohr P, Brown GM, Peckett A, Phillips R,Cameron EN, Douglas JAV and Plant AG, 1971, Tranquillityite: A new silicate mineral from Apollo 11 and Apollo 12 basaltic rocks: Proceedings of the 2nd Lunar Science Conference. *Geochimica et Cosmochimica Acta*, vol.1, Supplement 2, p. 39-45

Rasmussen B, Fletcher Ian R, Gregory Courtney J, Muhling Janet R and Suvorova Alexandra A, 2012. Tranquillityite: The last lunar mineral comes down to Earth. *Geology*, vol.40 (1), p. 83–86.



Photo credit: Susan StockImayer. Taken in a rock shop in Edinburgh, Scotland.



The Mineralogical Society of WA library currently owns over 150 publications comprising numerous books, reports and journals that have been donated by members. They are housed in a lockable cupboard in the WA Lapidary & Rockhunters Club premises. To access the books please see the Librarian, John Mill. Members are encouraged to borrow books from our library to keep it viable to continue maintaining.

Donations of books and other relevant publications are also appreciated. Please see John Mill if you have any publications you would like to donate to the library or email John at <u>millrock@jinet.net.au</u>.

The Mineralogical Society of WA receives complimentary copies of the Australian Journal of Mineralogy (AJM) which are available for members to borrow. These journals cover a wide spectrum of articles on mineralogy, ranging from descriptions of new minerals to book reviews, museum news and items of general interest to mineral collectors. MinSocWA members are regular contributors to the AJM.

TREASURER'S & LIBRARIAN'S REPORT

By John Mill

Silent Auction – General Meeting 10/3/2021

A silent auction of 37 lots was conducted at the General Meeting held on 10th March 2021. The auction focussed on the disposal of generous gifts from Ken Ireland and Ben Van der Klip.

Of the 37 lots, 32 were successfully sold and 5 were passed in, having failed to reach their reserve price. Passed in items include 3 boxes containing plastic mineral display boxes, one item consisting of 3 calendars and two text books: - Outlines of Mineralogy for Geological Students by Grenville A. J. Cole and Rutley's Elements of Mineralogy (26th edition) by H. H. Read.

The auction raised over \$850 after 'Square' costs.

In addition, 3 antiquarian books, An Elementary Introduction to the Knowledge of Mineralogy by William Phillips, A Guide to Geology by John Phillips and Elementary Introduction to Mineralogy by William Phillips with extensive alterations by Brooke and Miller were donated to the Society's patron, Mark Creasy.

Sarah Bundesen has generously donated 13 miscellaneous text books to the Society.

There are still many items in the library of a non-mineralogical nature to be disposed of. The committee has considered various mechanisms of disposal. One recommendation is making redundant library items available to members for a gold coin donation.

UPCOMING EVENTS - MEETINGS & ACTIVITIES

GENERAL MEETING - Wed 12 May 2021

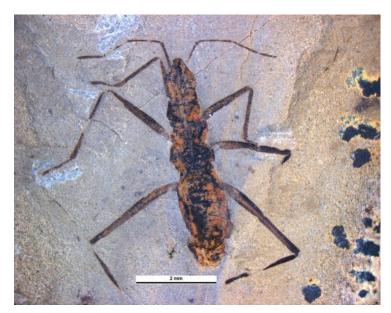
This General Meeting will be held at 7.30pm at the WA Lapidary & Rockhunting Club rooms located at 31 Gladstone Road, Rivervale (corner of Newey Street). The venue will be open from 7pm for refreshments and socialising.

TALK - Wed 12 May 2021 - Dr Sarah Martin, GSWA Standing on the shoulders of giants: Mesozoic insects of Australia

Abstract: Although the most common perception is that insects are rare in the fossil record, the opposite is actually the case, with more fossil insects described than all fossil tetrapods (amphibians, reptiles, archosaurs, birds and mammals) combined. Unfortunately, insect faunas of the Southern Hemisphere, including those from Australia, are poorly understood when compared to sites in the Northern Hemisphere. Even though the first report of a fossil insect found in Australia was made by Charles Moore in 1870, the documentation of fossil insects on this continent has been hampered by a lack of continuous research by dedicated paleoentomologists, and as a result many fossils are undescribed or are in need of reassessment.

Despite these problems, about thirty insect-bearing fossil localities are now known from Australia; some twenty of which coming from the Mesozoic. Each of the three periods of the Mesozoic preserve a distinctive insect fauna, with the Middle and Late Triassic fauna the best known at present. However, as work continues across the continent, new localities are being recorded and our

understanding of this critical period in insect evolution continues to grow. The Mesozoic is of particular interest to paleoentomology as it was an era of intense diversification and innovation, with the origins of the modern insect fauna firmly set in place before the end of the Cretaceous.



A fossil water-strider *Duncanovelia extensa* (Hemiptera: Mesoveliidae?), from the Lower Cretaceous Koonwarra Fossils Bed, Gippsland Basin, Victoria. Koonwarra is well-known for the detailed preservation of its paleoentomofauna. Photo by SK Martin (image subject to copyright).

Bio: Dr Sarah Martin is a paleontologist working for the Geological Survey of Western Australia (GSWA), a Division of the Department of Mines, Industry Regulation and Safety. Sarah completed a BSc(Hons) in Applied Geology at Curtin University, completing an honours project on Miocene echinoids from the Nullarbor Plain, followed by a PhD at Monash University on a Lower Jurassic insect fauna from the Perth Basin. As part of her role at GSWA, Sarah manages paleontology the Survey's collection. conducts paleontological research. and manages the State Geoheritage register.



GENERAL MEETING - Wed 14 Jul 2021

This General Meeting will be held at 7.30pm at the WA Lapidary & Rockhunting Club rooms located at 31 Gladstone Road, Rivervale (corner of Newey Street). The venue will be open from 7pm for refreshments and socialising.

There will be a talk after the meeting. The speaker and topic will be confirmed in the next newsletter and via our social media pages and email to members.

Mineral Market - Sun 16 May 2021 (10am - 3pm)

The Mineral Market is on again and we look forward to another successful day. Members are invited to participate in the MinSocWA Mineral Market on Sunday 16th May 2021 at the WA Lapidary and Rockhunting Club at 31 Gladstone Road, Rivervale, from 10am to 3pm, with set-up from 9am. Entry is \$2, 12 years or under free.

You may sell or swap minerals, gemstones, rocks and crystals or anything related to mineralogy, geology or mining. Microscopes will be available for anyone to have a close inspection of a specimen and Susan will be on hand to assist with identification of gems and specimens with transparent grains.

If you wish to book a table (tables) please email Sue Koepke at <u>president@minsocwa.org.au</u>. Sellers are charged \$5 per table with an initial quota of one table per person. If any tables remain, you may book additional tables one week before the event. We have already received enquiries for table bookings, so don't miss out!

Sellers <u>must</u> bring a table cloth to protect the table, and are asked not to bring anything crumbly, shedding flakes, decomposing, or otherwise making a mess.

THE PERTH GEM AND MINERAL SHOW (PGMS) - 18 & 19 Sep 2021



Proudly presented by the Mineralogical Society of Western Australia

Planning for the inaugural Perth Gem and Mineral Show is progressing steadily and the committee is pleased to share some exciting updates in this edition of the newsletter.

To date we have secured seven financial sponsors for the event. Money generously contributed by these sponsors will not only make this event possible, but it will enable us to create a special event.

The Show will run from 11am on Friday 17th September through to 4pm on Sunday 19th September. An exclusive sundowner event will be held on the evening of Saturday 18th which will be a wonderful opportunity to network and talk rocks.

We are now accepting submissions for sales tables, corporate booth spaces and speakers for the Perth Gem and Mineral Show. Please download a copy of our Vendor Prospectus from the MinSocWA website (<u>minsocwa.org.au</u>) and submit an application if you are interested.

We are also taking expressions of interest for volunteers both for the Show and for helping the committee organise the Show. If this sounds like something you might like to be involved with, please contact our PGMS Secretary, Kylie at <u>PGMS@minsocwa.org.au</u> or our PGMS Committee Chair, Peter, on 0467 040 409. You can also now find us and share the Show on social media:

https://www.linkedin.com/events/perthgemandmineralshow6788332784474746880/

f <u>https://fb.me/PerthGemMineralShow</u>

perth_gem_mineral_show

NEW MEMBERS, MEMBERSHIP & MEETINGS

The Mineralogical Society of WA would like to welcome the following new members:

- Jamie Zanatta
- Yolandi Jansen

All members are asked to ensure that all your contact details are up to date with the Secretary. If you change your email address or phone number please let us know so that you continue to receive all MinSocWA communications. Membership forms can be downloaded from the MinSocWA web page here: <u>http://www.minsocwa.org.au/membership.html</u>

Meetings

Meetings of the Mineralogical Society of Western Australia Incorporated are usually held at **7.30pm on the second Wednesday of every odd month** at the WA Lapidary & Rockhunting Club rooms at 31 Gladstone Road, Rivervale (corner of Newey Street). The venue will be open from 7pm for refreshments and socialising.

> At all meetings the Society's microscopes, UV lamp and refractometer are available for use by members.

COMMITTEE MEMBERS FOR 2020/2021

President	Sue Koepke	0417 990 688	president@minsocwa.org.au
Vice President	Susan StockImayer	9291 9043	baobab46@dodo.com.au
Secretary	Angela Riganti	9243 7472	secretary@minsocwa.org.au
Treasurer	John Mill	0411 420 921	treasurer@minsocwa.org.au
Field Trip Leader	Peter Willems	0467 040 409	fieldtrips@minsocwa.org.au
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Committee Member	James Sherborne		jamessherborne@hotmail.com

Patron - Mark Creasy

MinSocWA LINKS

Web:	http://www.minsocwa.org.au
Facebook Group:	https://www.facebook.com/groups/minsocwa
Facebook Page:	https://www.facebook.com/MINSOCWA
Instagram:	https://www.instagram.com/MINSOCWA
YouTube Channel:	https://www.youtube.com/channel/UC0S2TFVFIBLU-2zIEzE5VNA

ADVERTISING

Treasure Island: A Fossicker's Guide to Australia, is a new book by Rodney Berrell and Nicole Kelly



The book is a treasure trove for anyone keen to learn more about geology, minerals, gems and fossils. Through inspirational commentary, marvellously illustrated maps and photography, it explores over eight different areas across Australia including over 50 gemstone, mineral or fossil locations. Whether you are a professional or just starting out, this book will set you on an incredible journey – the history and formation of Australia and its geology.

> Contact Rod Berrell at rodneyberrell@yahoo.com to order your copy.

The Australian Journal of Mineralogy

https://www.ajmin.org.au

The Australian Journal of Mineralogy now has its own website. It lists all the issues of the journal, and visitors can use the site to pay for subscriptions, or purchase past issues. There is a free index, and a PDF of the now out-of-print V1.1, also free of charge. It has photo galleries, a mineral events calendar, handy links, and more.



Cover and contents of Volume 21, Number 2, 2020