



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 113 December 2025

CONTENTS



EDITORIAL.....	2
PHOTO/CAMERA ACTIVITY SEPTEMBER 2025	3
25 TH ANNIVERSARY CELEBRATION OCTOBER 2025	4
NOVEMBER 2025 PGMS	5
NOVEMBER 2025 BUNBURY FILED TRIP AND TALK.....	6
FIELD EXCURSION TO BASALT SITES AT BUNBURY WA: SATURDAY 22 ND NOVEMBER 2025	6
MICROSCOPE CORNER	9
LOOKING AT BUNBURY BASALT SPECIMENS	9
MINSOCWA – CELEBRATE 2025 BBQ	10
FROM YOUR LIBRARY READY TO BORROW	11
UPCOMING EVENTS	12
COMMITTEE MEMBERS FOR 2025/2026.....	13
MINSOC WA LINKS	13



EDITORIAL

Welcome to the 113th issue of our MinSocWA newsletter. Another packed episode for your reading, covering:

An informative workshop on how to set up and photograph your mineral specimens.

Another hugely successful Perth Gem and Mineral Show in early November.

A great field trip to the Bunbury basalts with Mike Freeman, along with an article about basalt viewed down the microscope.

MERRY CHRISTMAS

Wendy H
Newsletter Editor



PHOTO/CAMERA ACTIVITY SEPTEMBER 2025

Compiled by Angela Riganti

Photos by Angela and Ida Newton

On Tuesday 23 September, **Geoff Deacon**, Collection Manager – Minerals at the Western Australian Museum (WAM), hosted two sessions for MinSocWA members keen to gather useful tips about taking photographs of minerals.

Geoff's presentation covered his setup at the museum and processing of images — he gave us lots of useful advice, explained how he approaches mineral photography, and included a powerful demonstration of how images of long crystals can be taken as a series of in-focus slices that are then



stitched together by Photoshop - the tourmaline crystal being photographed (above) and shown on screen (to left) is c. 15 mm long.

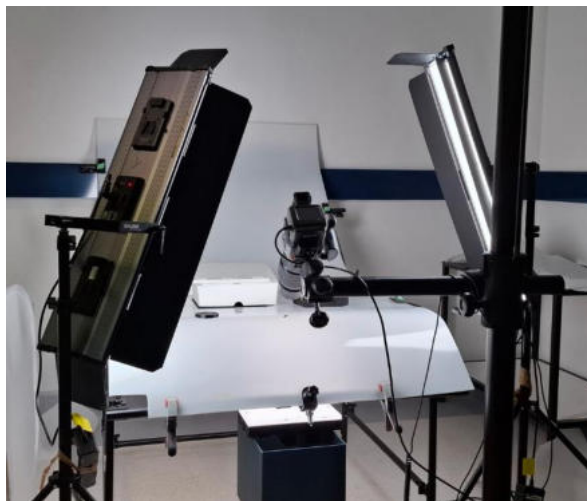
Although the equipment Geoff has at the Museum is a bit more than the average collector will use, some valuable tips were nonetheless garnered, and many questions answered.

Some of the main take-aways provided by attendees include:

- Lighting through the bottom of the specimen to emphasise features of transparent or semi-transparent minerals
- Use of different colour backgrounds to complement the specimen being photographed and using a curved sheet to avoid unsightly lines and corners
- How different light sources can affect the colour of the specimen in the resulting image
- Demonstration of how to remove the background when assessing a photo on screen
- The availability of free apps that allow users to view, take pictures, and record videos using a

[USB camera](#) connected to their device (e.g. Samsung's Mscopes). Some of these apps can help you effectively use your device as a microscope.

Geoff's photos grace many articles in the Australian Journal of Mineralogy, and there are indeed many in the upcoming issue (Vol. 26, No. 2) – keep an eye out for them!



25th ANNIVERSARY CELEBRATION OCTOBER 2025*Compiled by Angela Riganti*

On Tuesday, 28th October, our 25th Anniversary celebration was held at the Verandah Bar of the Inglewood Hotel from 7pm-10pm.

Over 40 members (almost half of our total membership) and some invited guests attended this social event. Over drinks and food platters, members mingled and socialised, and many reminiscences were shared.

The formal part of the evening included a welcome speech by President James Sherborne, thanking all the members and supporters that over the years have contributed to the Society going from a handful of people to over 100 members.



Past President Peter Willems was

acknowledged for his steering of the Society in previous years and for his leading role in establishing the very successful Perth Gem and Mineral Show.

Clive Daw presented a long attribution to founding member Ted Fowler's passion for

micromounts and his efforts in interesting others; Ted sadly passed away earlier this year, and his children joined us for the event.

Angela Riganti and Niels Dahl introduced the digital booklet that, in cooperation with Vernon Stöcklmayer and with feedback from several long-standing members, had been compiled to mark this anniversary and to document salient aspects of the Society and its activities for the first 25 years of its existence. Members present were gifted a USB emblazoned with the MinSocWA logo and containing a digital copy of the booklet and all MinSoc Newsletters to date.



To close the formalities, GAA-WA kindly provided some raffle prizes, including some faceted stones and free access to one of their short courses.

Those present enjoyed a good get together on a very pleasant, balmy evening.



May MinSocWA continue to prosper for the next half century!



NOVEMBER 2025 PGMS*Compiled by Nic Hébert*

The Perth Gem and Mineral Show 2025 edition was a success! Read our [event guide](#) again to assess all that was on offer during the three days of the show.

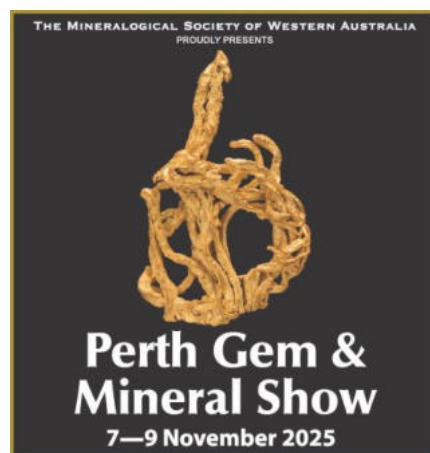
There were many mineralogical wonders to be seen at the show. The Perth Convention Centre was indeed the place to be down under that weekend.

Thanks to our sundowner sponsor AngloGold Ashanti Australia, returning in 2025 – and supporting us since 2021 – attendees enjoyed a moment of conviviality, among nibbles and drinks.

We'll return next year for another Saturday evening of celebration and sharing through live and silent auctions.

In 2025, we raised \$17,280 and supported [MinSocWA](#), [AusEarthEd](#) (Earth Science Education), [Manna](#) (Perth-based food relief) and [Wheelchairs for kids](#) (WA local charity).

Highlight of the charity auction included a signed copy by MinSocWA's patron of the 1st translation of the De Re Metallica, and polished slabs of ore from Degruusa (Cuprite-Malachite-Chrysocolla) and Greenbushes (triphylite with blue stained vivianite in spodumene/quartz/beryl/muscovite assemblage).



Some of the members of the PGMS 2025 Committee

from being little hands laying down carpet to attending the front desk, operating the call for seminar talks or being the face of MinSocWA for the weekend. You rock!

See you in November next year.

With over 7000 attendees, the show was again well attended by local, interstate and international enthusiasts. More pictures to come once we get the wrap up from our videographer!

The dates for next year's event have been finalised to **Fri 6th Nov - Sun 8th Nov 2026**.

The new core committee is working towards making PGMS even better in 2026, incorporating feedback from vendors, attendees and sponsors.

We wish to extend our thanks to the volunteers that helped one way or another make this event a success,



NOVEMBER 2025 BUNBURY FILED TRIP AND TALK

Field excursion to basalt sites at Bunbury WA: Saturday 22nd November 2025

Leader Michael Freeman

Compiled by Susan Stöcklmayer

Photographs contributed by Susan Stöcklmayer, Ida Newton and Michael Freeman

It was an early start on Saturday 22nd November as MinSocWA members, mostly from Perth, were expected to assemble at the Bunbury Museum and Heritage Centre building by 10.00 am. We were made very welcome by the museum staff and our group of thirteen members, together with a few local residents, were together for a presentation on the origins and geological significance of the local basalts by Mike Freeman, local resident and MinSocWA member.

Soon after 200 Ma ago, the breakup of eastern Gondwana, made up of combined continental plates, including India and Australia, lead to the opening of a gulf, or abyss, and what is now referred to as the Perth Basin, began as a sedimentary repository between these tectonic plates. Sediments of this basin are made up of marine-derived material from the north, while the rivers that flowed from the south brought in terrestrial sediment from off the Albany – Fraser Orogen and East Antarctica. With 15 km of sediment accumulated in the period between 300 and 100 Ma. At 140 Ma, Perth Basin sediments were above sea level and major rivers eroded valleys in the Yarragadee Formation.

Eruption of the Cretaceous-age Bunbury Basalt, dated at between 137 to 130 Ma, occurred as distinct flows along two principal, approximately north-south paleovalleys and into sediments of the Perth Basin. Most westerly is the Bunbury Paleoflow with the deeper-seated Donnybrook Paleoflow to its east. Following these basaltic outpourings, the Leederville Formation was deposited with up to 100 m thickness of sediment effectively covering the basalts.

Currently, basalt outcrops in the Bunbury area can be seen at Back Beach extending for 1.5 km along shore, with some small outcrops in the city suburbs and exposures in two quarries at Gelorup, further south. Other outcrops comprise about fifteen, mapped regionally by GSWA, including five along the Donnybrook Paleoflow. Basalt, as sheets of up to 200 m thickness within sediments, is also recorded at deep levels in drill holes. Thicknesses vary along the flows and within each flow, and Perth Basin sediments and basalts were folded and faulted following the eruptions.

Mike gave a brief overview on volcanism and particular lava types as examples: the andesitic magmas that have produced classic conical volcanoes such as Mt. Mayon in the Philippines and those of a different composition that extrude along linear and fissure flows, such as some in Iceland.

The local basalts are a dark grey mafic type, termed tholeiitic, and described as fine grained, micro porphyritic and variably vesicular. Plagioclase feldspar is dominant (andesine and labradorite) with clinopyroxene (augite and pigeonite) and/or orthopyroxene as the mafic components, together with minor olivine, hornblende and micas. Amygdales contain secondary minerals. Scenic outcrops of the basalts can be viewed at Black Point and Wyalup beach where columnar pillars are exposed.

Two quarries, both in the Bunbury Paleoflow are in close proximity at Gelorup, about 6 km south of Bunbury, and are operated by different companies with production as an industrial material. Quarry stone has many industrial applications, notably as aggregate in concretes and road surfacing, as well as its use as polished plaques, plinths and headstones utilizing whole rock. In 2007, a memorial headstone of Bunbury Basalt, organised by the Geological Society, along with BHP and Readymix, was erected in Nannup cemetery to the memory of H. W. B. Talbot (1874 – 1957) in recognition for his contribution to the geological mapping of Western Australia.

Following the museum talk our group then met up at the Wyalup beach area. Here we could wander over the many basalt platforms and view the various columnar formations of the natural walls of basalt along the beach front (image 1); columns were generally quite short (image 2) (<2 m) and could be



Image 1. General view with basalt exposures at Wyalup beach, Bunbury

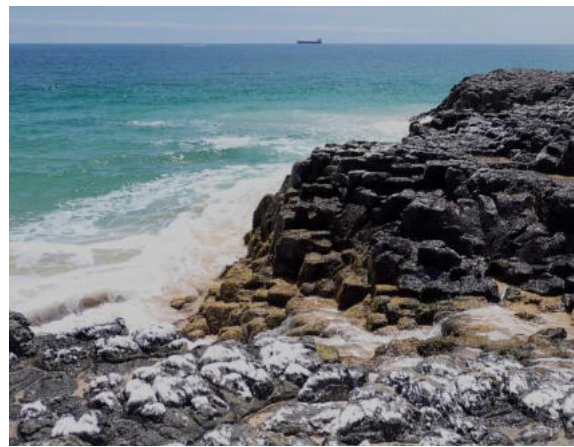


Image 2. General sea view with columnar basalt exposures at Wyalup beach

seen in several different orientations. Some platforms exposed quasi-geometric column-tops- not as perfect hexagons. It was of interest to note that the basalt commonly showed textural differences across the column width with a flange of fine-grained lava peripheral to nodular textured centre portions (image 3). A picnic lunch at the beach was then followed by a short drive to the Heidelberg quarry at Gelorup.



Image 3. Basalt column tops exposed on the beach at Wyalup. FOV ~1 m. Many of the central column portions have a nodular texture with borders of a finer texture

Manager Rowan Nankivell and Greg Bishop of Heidelberg Materials organised the use of a minibus and one other vehicle to convey members of the group to four different sites of interest at the quarry. We viewed exposures of multiple columns of basalt in the quarry walls, some sections with slumped groups of columns and some *en echelon* as steps (image 4). We were given the opportunity to closely inspect piles of



Image 4. Wall of basalt at Heidelberg quarry, displaying columns in different orientations. A drill rig is positioned to prepare for a new area to be quarried

blasted fresh rock in the search for mineral oddities; amongst the fresh basalt (image 5) were some scoriae specimens populated with small round and oval

vesicles (generally <20 mm) (image 6) several of these could be seen bordered by greenish secondary minerals with infillings that have yet to be reported on (see “microscope corner” in this issue).

The day was spent in good dry weather and was thoroughly enjoyed by all.



Image 5. MinSocWA members inspecting basalt boulders at Heidelberg quarry

From those members who attended in Bunbury, our thanks go to Michael Freeman for planning and making the trip feasible, and to Heidelberg Materials for their hospitality; outcomes were certainly successful.

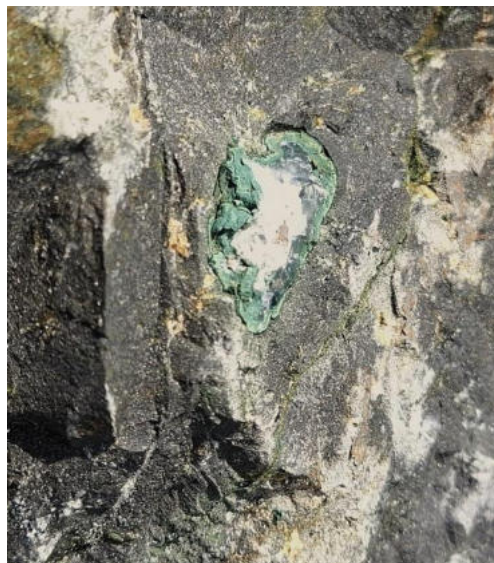


Image 6. Vesicular basalt with a 20 mm amygdale showing a secondary green mineral border

Image 7. MinSocWA group at Heidelberg quarry



A Geotrail of the general Bunbury area that will include the exposures mentioned is currently being prepared by Mike Freeman. A copy can be requested for viewing and comment.

MinSoc members interested in viewing the PowerPoint presentation given at the Museum may contact our secretary. The PowerPoint is for private viewing only and should not be circulated without permission.

MICROSCOPE CORNER

Looking at Bunbury Basalt specimens

Submitted by Susan Stöcklmayer

A few mineral queries resulted from inspection of the basalt specimens collected during the recent MinSocWA trip to Bunbury.

Using a petrographic microscope, RI oils and other physical simple tests and observations, some queries are now resolved.



Image 1. Glassy brown stained mineral on the surface of basalt. FOV 10mm

From specimens at the beach: patches of a glassy brown material were common on the dark basalt surfaces (image 1). This material, as well as other yellow prismatic crystals seen glinting on the basalt, was identified as plagioclase feldspar (with $RI \sim 1.56$). A few of these crystals (phenocrysts) show lath-like habit and cleavage faces, and in image 2, inclusions of an opaque mineral are also present, that are likely to be magnetite or ilmenite, as both minerals are common in the basalt mineralogy.

Plagioclase feldspar is the dominant mineral of this basalt but it is uncommon to see it exposed on rock surfaces as a

quality that is both vitreous and transparent.

Specimens of vesicular basalt were collected from rock piles in the quarry. The vesicles (image 3) are typically



Image 3. Vesicular basalt collected at the quarry. Ida Newton specimen

round or oval while others have coalesced; none of the

single vesicles seen were more than 20 mm in length. A fine bluish mineral commonly forms a lining in the open vesicles and has a globular habit (image 4). The mineral is finely fibrous viewed under high magnification (400 x) but its identity was not resolved by optical tests (image 5).

Several of the specimens collected from rock piles have narrow veins of a white, pearly mineral (image 6). Although it was first

thought to be gypsum because of the fibrous habit and low hardness, the mineral was proven to be calcite; its properties are optically all correct and it responds with vigorous effervescence to dilute HCl. There were many loose pieces of calcite amongst



Image 2. Partial feldspar crystal measuring 3.5 mm in length, it has opaque mineral inclusions

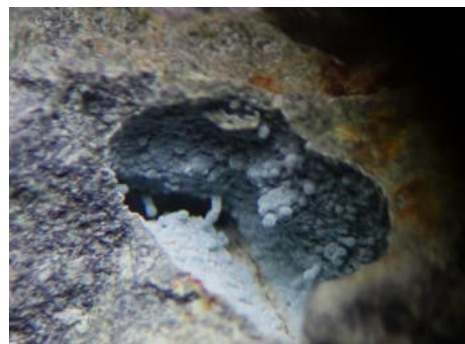


Image 4. Common blue secondary mineral lining a 15 mm vesicle, with globular habit

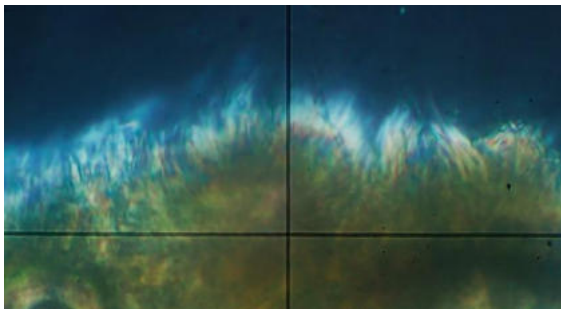


Image 5. Mineral crush showing the blue mineral of image 4- finely fibrous FOV 1 mm.

the rock piles. Calcite is also the most common vesicle infilling (image 7), characterised by its obvious cleavage faces and pearly lustre.

One mystery mineral was found in some vesicles; its optical properties are recorded but, at the time of completing this note, its identity is not confirmed (and there are several possibilities). It is glassy in appearance, colourless, is brittle and of low hardness, its optics show RI $n_{\beta} \sim 1.63$, low DR and biaxial positive with moderate 2V. If any member has more of this mineral to share, investigations will continue.

All photographs by Susan Stocklmayer unless otherwise credited



Image 6. Loose specimen of calcite displaying its fibrous development as cross-fibre



Image 7. A calcite crystal seen in a vesicle and measuring 15 mm

MinSocWA – CELEBRATE 2025 BBQ

We celebrate the end of 2025 with a Christmas Social at Matilda Bay with a picnic/BBQ.

Friday 19 December 2025 at 6.00pm

Bring your own food and non-alcoholic drinks, and maybe a plate to share.

Next meeting will be on 21 January (**NOT** 14 January) 2026

A talk by Dr Robert Madden on geological and mineralogical techniques applied in a commercial setting.

MEMBERSHIP

The Mineralogical Society of WA has over 100 members. We have welcomed the following new members since September 2025:

Anthea H
Dane H
Justin R
Ross B

Bert De W
John S
Nadini J
Tim B



All members are asked to ensure that their contact details are up to date with the Membership Secretary/Secretary. If you change your email address or phone number, please let us know so that you continue to receive all MinSocWA communications – membership@minsocwa.org.au

FROM YOUR LIBRARY READY TO BORROW

The MinSocWA Library has nothing to report this quarter.

Please contact John Mill if you wish to borrow an item. The [catalogue](#) is available on our website.

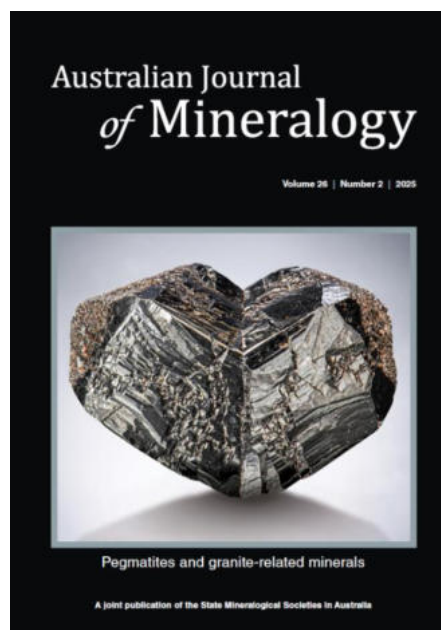
AJM Issue 26, Vol. 2 at the printer!

The second issue of the Australian Journal of Mineralogy for this year [26(2)] is being printed as you read this. This landmark edition is devoted to *Pegmatites and granite-related minerals* — one of the most dynamic topics in contemporary mineralogy — and showcases a spectacular gallery of specimens from classic pegmatite localities in Western Australia and beyond.

For the first time in the Journal's history, readers can also enjoy a **digital edition**. Details are outlined in the editorial, and the QR code below provides instant access to the new subscription options.

All existing subscriptions remain valid, but members now have more choice than ever. Whether you're short on shelf space or prefer to read on the go, the Journal is now at your fingertips.

Don't miss this milestone issue—your gateway to what's new and exciting in Australian mineralogy.



**The same rock-solid journal
– now with a digital twin**

OUR NEW SUBSCRIPTION OPTIONS

- Hardcopy only
- Digital only
- Hardcopy and digital

ajmin.org.au/subscriptions



UPCOMING EVENTS



In celebrating its 50th Year Golden Anniversary

Presents:

The 48th Seminar of the Joint Mineralogical Societies of Australasia

Saturday, 6th June to Tuesday, 9th June 2026

Venue:

The Mercure Ballarat Hotel & Convention Centre

613 Main Road, Golden Point, Ballarat, Victoria



Volcanism and its minerals

1 ½ days of presentations by experts in their respective fields, interspersed by catered breaks

½ day of swapping, selling and a micro mineral session

Saturday night dinner with a mineral auction

Field excursions on Monday and Tuesday

www.minsocvic.org.au

See you in 2026



COMMITTEE MEMBERS FOR 2025/2026

President	James Sherborne	president@minsocwa.org.au
Vice President		
Secretary	Angela Riganti (Acting)	secretary@minsocwa.org.au
Treasurer	Vino Vigneswaran	treasurer@minsocwa.org.au
Field Trip		fieldtrips@minsocwa.org.au
Committee Member	John Mill	millrock@inet.net.au
Committee Member	Mike Wort	mike.wort@bigpond.com
Committee Member	Susan Stocklmayer	baobab46@dodo.com.au
Committee Member	Nicolas Hébert	aminenh3@gmail.com
Committee Member	Angela Riganti	tormalina@bigpond.com
Assisting positions:		
Membership Secretary	Wendy Hampton	membership@minsocwa.org.au
Newsletter Editor	Wendy Hampton	newsletter@minsocwa.org.au
49th Joint Seminar		seminar@minsocwa.org.au
PGMS Secretary	Nicola Italiano	contact@perthgemmineralshow.com

Patron - Mark Creasy

Meetings

Meetings of the Mineralogical Society of Western Australia Incorporated are usually held at **7.30 pm on the second Wednesday of every odd month¹** at:

WA Lapidary & Rockhunting Club rooms 31 Gladstone Road,
Rivervale (corner of Newey Street)

The venue will be open from 6.30 pm for refreshments and socialising.

¹ Note the January meeting is usually the 3rd Wednesday.

MinSoc WA 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