

# Mineralogical Society of Western Australia Inc January 2010 Newsletter

## Editorial

Thanks to those members who have provided articles or information for this issue. Photographs in this newsletter have been reduced in size and are not suitable for enlargement. Members are reminded that short adverts are provided free of charge to members.

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## February Meeting - Wednesday 3<sup>rd</sup> February 2010

Starting at 7:30 pm at the WA Lapidary Club rooms 31 Gladstone Road Rivervale. Speaker: Susan StockImayer Topic: "Jade" Visitors Welcome.

### **2010 Future Meeting Dates**

Wednesday 7<sup>th</sup> April 2010 – Speaker to be advised Wednesday 2<sup>nd</sup> June 2010 – Speaker to be advised Wednesday 4<sup>th</sup> August 2010 – Speaker to be advised Wednesday 6<sup>th</sup> October 2010 – Speaker to be advised Wednesday 1<sup>st</sup> December 2010 Christmas Meeting Speaker Margot Willing Topic to be announced

## Allan Hart, Clive Daw, Mignonne Clark: Report on Social evening at Vernon & Susan Stocklmayer's place

A small group of WA MINSOC members attended a "BYO BBQ" social evening on Saturday 16<sup>th</sup> January at the home of Vernon and Susan StockImayer in Lesmurdie. Vern cooked all the different meats on the BBQ and Susan spoilt us by providing extra delights of fresh cold fruit and ice-cream. It was a perfect evening after very hot weather we had been having and a great start to 2010.

Following dinner we all took the opportunity to view and discuss the minerals specimens brought along by Clive Daw under a regular microscope and also to view the specimens under a USB digital microscope Susan had purchased in England (cost  $\pounds49$ ). This has a magnification between 20x and 400x and a resolution of 1.3 megapixels.

Clive Daw supplied 7 specimens (some of these were from the type localities for those minerals) for people to look at under the microscope. These were:-

- 1) Quartz with Epidote from north Kimberley
- 2) Ashburtonite  $(HPb_4Cu_4Si_4O_{12}(HCO_3)_4(OH)_9Cl)$  from Anticline Mine at Ashburton Downs
- 3) Wulfenite ( $PbMoO_4$ ) and Pyromorphite( $Pb_5(PO_4)_3Cl$ ) from Ledge mine, Ashburton Downs
- 4) Wulfenite ( $PbMoO_4$ ) and Pyromorphite( $Pb_5(PO_4)_3Cl$ ) from Silver King Mine out from Onslow
- 5) Ashburtonite, Perroudite( $Hg_{5-X}Ag_{4+X}S_{5-X}(Cl,I,Br)_{4+X}$ ), Cornwallite( $Cu_5(AsO_4)_2(OH)_4$ ), Chrysocolla (( $Cu,Al)_2H_2Si_2O_5(OH)_4$ · $nH_2O$ ), cerussite(PbCO<sub>3</sub>), Brochantite ( $Cu_4SO_4(OH)_6$ ) From Anticline Mine at Ashburton Downs
- 6) Widgiemoolthalite ( $(Ni,Mg)_5(CO_3)_4(OH)_2$ ·4-5H<sub>2</sub>O) and Gaspeite( $(Ni,Mg,Fe)CO_3$ ) from 132 North Nickel Mine, 4 km SW of Widgiemooltha
- 7) Pecoraite  $(Ni_3Si_2O_5(OH)_4)$  and Gaspeite from 132 North Nickel mine, 4 km SW of Widgiemooltha

Allan Hart brought along the following minerals for people to look at:-

- Bahianite  $(Al_5Sb_3O_{14}(OH)_2)$  from Brazil
- Hydroxylherderite (CaBePO<sub>4</sub>OH) from Brazil
- Swedenborgite (NaBe<sub>4</sub>SbO<sub>7</sub>) from Sweden
- Manganapatite ((Ca,Mn)<sub>5</sub>(PO<sub>4</sub>)<sub>3</sub>F) from Finland
- Purple Jadeite (Na(Al,Fe)Si<sub>2</sub>O<sub>6</sub>) from Turkey
- Proustite (Ag<sub>3</sub>AsS<sub>3</sub>) from Peru
- Lengenbachite (Pb<sub>6</sub>(Ag,Cu)<sub>2</sub>As<sub>4</sub>S<sub>13</sub>) from Switzerland
- Purple Fluorapatite from Pulsifer Quarry Maine, USA
- Reevesite  $(Ni_6Fe_2CO_3(OH)_{16}\cdot 4H_2O)$  from Nullagine, WA
- Small diamonds

Allan Hart also brought along the book "Glossary of Obsolete Mineral Names" by Peter Bayliss (Published by The Mineralogical Record Inc., Tucson, ISBN: 0-930259-04-1). The author is at the Australian Museum in Sydney. This is a hard cover book with 235 pages. Each page has 2 columns of names with about 70 names per column. Each letter of the alphabet starts on a new page. For each mineral in this book it gives the mineral it represents, a reference where it was used including page and date. It contains many names from other languages (such as German language), and also many chemical names such as calcium carbonate for calcite. It also contains varieties such as aquamarine and emerald for beryl. It includes names such as ochre, yellow ochre, yellow copper ore, common garnet, common mica, salt, epsom salt, aurum, fool's gold, chalk, jade, new jade and New zealand greenstone. Some of the names included are mixtures of 2 or more minerals (eg sand halite = salt + quartz). Some synthetic materials(eg Lithium-spinel and YAG) are included.

Also on display was the first microscope used by the Geogical Survey in Rhodesia.

All those who attended wish to thank Susan & Vernon for a very enjoyable evening.

### Susan Stocklmayer: Antique Petrological microscope

One of the items noticed by some members at the recent social evening is this petrological microscope. Manufactured by James Swift and Sons Ltd. London circa 1900 it was the state of the art microscope for this period. The company introduced its first petrological microscope in 1891 that had a fixed stage. This model features a rotating stage, and coupled polarizer and analyser that revolve via a geared coupling; it is a fully functioning petrological microscope. Polarized light is achieved through specially cut Iceland spar (optical quality calcite) nicols as was normal for the period until Polaroid was introduced about 1945. Lighting is by reflection from a mirror below the condensing lens system. This was the first scientific microscope used by geologists in the then newly formed Geological Survey of Rhodesia (1910). The Swift Company was contractor to all scientific departments of the British government so it was the official supplier also to overseas departments.

For a fascinating read about the history of microscopy and the petrographic microscope a special publication (November-December 2003) by the Mineralogical Record is available.



#### Sue Koepke : Report on the Northampton Field Trip, 2009

It was a glorious, sunny day. The journey from Perth had been uneventful, and Bert, Murray and I had just finished our lovely lunch at a seaside café in Geraldton. With plenty of time on our hands, we decided on a reconnaissance detour before we would head to the Old Miners' Cottages B & B in historic Northampton. Out came my trusty geological map, and a few dirt tracks, gates and water crossings later, we found ourselves at a group of abandoned mines (Pb-Zn-Cu) that would have been some of the richest and deepest in the Northampton mineral field. We had a quick look around some dumps, found the ruins of a homestead, and walked past water filled open cuts. A shaft nearby emitted the evil stench of a decomposing carcass. We even wandered across a paddock in our quest for mineral specimens. While we didn't find anything spectacular, it was an interesting enough place to return to the following day for further investigation.

We soon continued our journey through the undulating countryside and not long after, we arrived at the charming B & B where Allan was waiting for us. After sorting out the sleeping arrangements, our hosts Heidi and David joined us for cheese, crackers and wine, and attempted to clear our sinuses with their delectable wasabi-dipped raw tuna bites.

Bert and Allan went to the local pub for dinner, while the rest of us partied on in the kitchen where Murray was busily cleaning rocks. Upon the lads return we continued socialising, but eventually one by one we retired for the night. The two Bens and Imelda arrived safely from Perth some time later in the wee hours.

The next morning, Saturday, was the official start of the field trip. Our small group of 7 was joined by Tony who had spent the night elsewhere, plus Ida, Libby and Bryan from the WA Lapidary & Rockhunting Club. Our trip leader Ben Nicolson took us on a pleasant drive to an interesting location where minute loose brownish pyromorphite crystals could be found in the soil. While three of us explored the nearby hilltop, one of the ladies found a cute 'Bad Ems style' pyromorphite thumbnail specimen on the surface, near some historic workings. Talk about beginners luck!

Next, our group of eleven made their way towards Nabawa, and after a failed attempt at taking a short cut, we entered the abandoned mining area via the safe track where Bert, Murray and I had exited the day before. At our first stop, we had a jolly good time looking for azurite and malachite (reference specimen quality), while at the next (lunch) stop massive sphalerite and chunks of galena, some of it euhedral, were found by Murray and the two Bens. We could also collect some quartz, instructive pink feldspar samples and garnet gneiss. The day before, I had found some grass green pyromorphite crumbs on the ground nearby that we quickly traced back to a shallow excavation. After everyone had a chance at looking at the spot, the lads expended some energy in extracting several chunks of rock material, but unfortunately no good specimens were unearthed.

On our return, we stopped near the water filled pits where ducks and frogs had taken up residence, and before long some of the guys were busily cracking rocks in their quest for cerussite specimens. For others, the highlight of the afternoon might well have been the small live snake (most likely Stimson's python, Antaresia stimsoni) that Ben N pulled out from underneath the car.

Once back in Northampton, we immediately descended on the pub to quench our thirst with a beer or two (or three) before sprucing up for dinner.

Late that night, I received a heck of a fright when I went to bed in the dark, stretched out my legs under the blanket and hit rock bottom - literally. Our resident jokers had apparently decided that half a flat of rejected rocks should go 'under cover' in my bed. Good one! I went to sleep with a smile on my face.

Sunday morning we once again enjoyed the superb breakfast prepared by our hosts Heidi and David. Freshly brewed coffee, tea, fresh and conserved fruit, yoghurt, cereals, toast, home made jams and spreads, all beautifully served on the veranda. While waiting for breakfast, we had the opportunity to inspect our host's lapidary trading stock, and several of us purchased a few lovely cabochons.

This morning, Ben was leading the convoy to a location north of Northampton that he had checked out a month earlier. We found an uninspiring looking rock pile not far from where the cars were parked. As we were told we'd stop for half an hour only, I gave the rocks a few cursory pokes, then proceeded catching the local wild life (bobtail lizard, centipedes with red heads and tails) rather than working up a sweat shifting heavy rocks. Big mistake! Bert turned over a large-ish rock and found a good sized galena crystal attached to the underside. As we all wanted one of those, some serious rock shifting took place for the next hour or so. Tony soon got into a spot where he bagged quite a few clay coated galena clusters, while the other guys also collected several specimens before we eventually moved on.

We continued to an abandoned mine site surrounded by pretty yellow everlastings and other wildflowers, but didn't find very much specimen material of interest, with the exception of a few micros and some interestingly textured ore. It was getting close to lunchtime, so we gathered for a final group photo before most of us headed off back to Perth.

Half a dozen of my little plastic bags containing grass green pyromorphite crumbs, a small green pyromorphite crystal, quartz, and miscellaneous other small bits presumably got left behind on the table at the end of the veranda of the Old Miners' Cottage where we had been comparing our finds. Such is life...







Allan Hart: Additonal Photos of Northampton Trip



Some of the wildflowers seen on the trip (Mulla Mulla on left, Claw flower on right)



Secondary copper minerals found on the surface



What's the problem here?

What the problem was!



Sue harrassing a centipede



Those people who made it to the end of the trip

The next Joint Mineralogical Societies of Australasia 33rd Annual Seminar will be held in Adelaide 2010 over the June long weekend Saturday 12 June, Sunday 13 June and Monday 14 June 2010 Make a note of the dates in your diary.

The 46<sup>th</sup> National Gemboree will be held at Devonport Recreation Centre Forbes St from 2<sup>nd</sup> to 5<sup>th</sup> April 2010 4 tours are planned for the Gemboree

The Adelaide Mine Crocoite Tour

- The Volcanoes & Sights Tour
- The Happy Tour
- The Osmiridium Safaari

5 free lectures are planned

#### FIELD TRIPS 2010

By arrangement members of the mineralogical society are able to go on field trips organized by the Western Australia Lapidary and Rockhunting Club inc.

Please register with MINSOC Field Trip organizers prior to attending any of the following events, but only if you are a current (financial) MINSOCWA member to confirm event details.

MINSOC Field Trip organizer vacant

THE WESTERN AUSTRALIAN LAPIDARY AND ROCKHUNTING CLUB INC.		
31-35 Gladstone Road, Rivervale, 6103. Rivervale W.A.		
PROPOSED 2010 ACTIVITIES & EVENTS		
Feb 14 (Sunday) – 'Round the houses		
Feb 27, 28, Mar 1 Moora Area		
April (Easter) Ravensthorpe Hopetown area		
May 23 (Sunday)		
June Exhibitions		
July Sat 3 to Sun 18 East Pilbara Area		
Aug 15 (Sunday) Byford Area		
Sept 25-27 Wildflower trip Eneabba Area		
Oct 24 Northam Area		
Nov 14		
Further 2010 activities and events will be published during the year		

OS&H – Yes, occupational, safety and health applies on field trips

Please make sure you have the normal safety gear – field boots and hard hat Plus carry extra drinking water. Take sun screen and fly repellant. Drive safely

Particularly important for group field trips:-

Please register your details with excursion organizer – name, car rego, mobile telephone Please follow instructions by excursion organizer and if you need to leave a field trip early, advise organizer.

#### Departures

Ben Nicolson has changed jobs and is now based over east in a job which involves fly in fly out to overseas. We thank Ben for the contribution which he made while he was here and wish him all the best for the future. Ben don't forget about us, please call in and see us any time that you are on this side of the continent. This means that we now have a vacancy for field trip co-ordinator. Anyone interested should contact the secretary (Sue Koepke)

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