



Mineralogical Society of Western Australia Inc March 2012 Newsletter

Editorial

A reminder, our meetings are now held on the third Wednesday of odd months, often with other activities on the intervening months. While we are having either meetings or activities most months, the newsletter will still only come out once every 2 months. Many thanks to those members supplying articles for this newsletter. If insufficient articles are received then the newsletter may be cancelled. The committee has been busy planning the seminar. Please read the section below on the seminar as extra information has been added to it from previous newsletters. The website also has additional information including details on the confirmed speakers. Until the end of the seminar committee members will be under a lot of pressure. Please make their task easier by helping out whenever you can. Members may submit short adverts free of charge.

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2012 Future Meetings and other Activity Dates

Please note these dates are the third Wednesday of the month.

Wednesday 18th April 2012 (informal meeting) Microscope session. Members are invited to bring specimens to view under the microscope. Members are also invited to bring along any rare earth minerals which they might have.

Wednesday 16th May 2012 Speaker(s): Peter Macintosh Topic: To be Announced

June – Joint Seminar Saturday 9th June to Monday 11th June

Wednesday 18th July 2012 AGM Speaker: John Blockley Topic: Northampton Mineral Field

Wednesday 19th September 2012 Speaker: Melvyn J. Lintern, CESRE, Topic: "The gold and calcrete story 25 years on - what have we learnt?"

Wednesday 21st November 2012 Speaker: Peter Downes Topic: TBA

Joint Mineralogical Societies of Australasia 35th Annual Seminar

The next Joint Mineralogical Societies of Australasia 35th Annual Seminar will be held in Perth at the State Library (Alexander Building) from 9th to 10th June 2012. The theme will be “Rare Earth Minerals”. Additionally a micromounters symposium will be held at Gemmological House in Claremont on the 8th June. The theme for the micromounters symposium is “Nickel Minerals of Western Australia” with particular emphasis on 132 North Mine, Widgiemooltha. The micromounters symposium is full and anyone else wanting to go will have their names placed on a waiting list. A mineral trading morning will be held at The Philatelic Council Rooms in Wellington Fair Perth on Monday 11th June. A map showing where this venue is located has been placed on the website. Functions have been planned for Friday, Saturday and Sunday nights, with the dinner on the Saturday night being the only one incurring an additional charge. A 10 day field trip is being planned with an exit point at Kalgoorlie (possibly between days 3 and 5) for people who need to leave early. The field trip will look at pegmatites around Mukinbudin, then on to Coolgardie for 3 days for various deposits in the area. We then travel to Kalgoorlie before heading up to Mt Weld, and then finally returning to Perth possibly late Thursday. Members are encouraged to download the registration form from the website (www.minsocwa.org.au) and to register early. If you don't register by the 16th May you may miss out on the abstract and field trip guide. More details in future Newsletters, and on the website.

Museum visit reported by Geert Buters (photos by Allan Hart)

At 9.45 on Thursday March 15th a merry band of Minsoc mates gathered in the car park of the WA Museum's Welshpool Collections for one of our society's occasional visits to this facility. There was Sue Koepke, who had organized the visit, Allan Hart, a “repeat offender”, and two newbies, Ken Ireland and Geert Buters, neither of whom had been admitted to this treasure trove before.

Peter Downes met us at reception and after the signing-in led us into the bowels of the Museum's storehouse. In the semi light we walked past pallets of vertebrae the size of tractor tyres, and towering racks of enough varieties of prams to stock an entire chain of only slightly old-fashioned maternity shops. Then Peter stopped in mid stride, casually remarking: “Oh, you might like to see this.” When he slid the lid off a large box sitting alongside the walkway, we were looking at a 1.5 x 2.5 m slab of rock from Gascoyne Junction absolutely covered in perfectly preserved crinoids, starfish, and other fossils. What a jaw-dropper! The detail was just amazing.





Some of the fossils in the above slab

After the lid went back on, it was on to the mineral collection, where Alex Bevan met us. Before our visit Sue had sent Peter our wish list of what we would like to view. The list was quite revealing of our varied interests. Ken wanted to see talc specimens and WA meteorites. Sue, ever the organizer, had requested to view some specimens of minerals we might encounter at some of the sites on the seminar field trip. Allan focused on the obscure, ephemeral and microscopic, but also wanted to see the club logo, simpsonite, while Geert wanted to see specimens from some of the lesser pegmatites he had visited last winter.

Despite Peter's best efforts and the Museum's 30,000 specimens, our requests might have been better targeted, and met with mixed success. One of the highlights, amongst the many specimens we did view, was an 8" piece of beautiful blue lavendulan from the 132N mine. We also saw a nice collection of columbites. One excellent sample from Spargoville had specular faces and perfect terminaton with a little notch indicating it was probably a twin. Allan's request for simpsonite produced some well crystallised examples from Brazil, which were of great interest to everybody, and his moonshot, a request to view tranquillityite, while missing its target, resulted in an interesting discussion with Alex Bevan on how to determine the origin of extra-terrestrial rocks. Apparently every heavenly body has its own characteristic magnesium/iron ratio, which can be used for identification. Alex then showed us a piece of Mars under a polarizing microscope. There was some green amongst the many colours, but no little men. My own requests all drew blanks, but I did get to see some Mexican vesuvianite, which displayed some similarity to much smaller samples I had collected north of Kathleen Valley.



Simpsonite from Rio Grande do Norte Brazil



Columbite Tabba Tabba



Columbite Spargoville



Columbite Londonderry



Spodumene Kathleen Valley

To round off the visit we went to the safe to view the collection of meteorites. Apparently they are kept in the safe partly to prevent accidental contamination. Some broken stony samples clearly illustrated the difference in texture and colour between the inside and the outer fusion crust. A sectioned and polished iron meteorite displayed the hatched Widmanstätten pattern so typical of the intergrowth of two cubic polymorphs of iron, kamacite (up to 8 % nickel) and taenite (up to 70% nickel), found in meteorites. In a small box on top of a cabinet was a little plastic bag with star dust marked “Himmels Staub”, much to Sue’s amusement.

A big thank-you must go to Alex Bevan, and to Peter Downes, who was kept busy pulling open drawers to satisfy our requests. Thank you both for a very enjoyable and educational visit. We must also thank Sue for making the arrangements with Peter Downes.

Report of a talk on “Mont Saint-Hilaire, Canada: one of the most prolific current sources of rare mineral species” given by Francine Payette 21/3/2012

Francine began her talk with some details of the complex geology of the area around Montreal, Canada. Mont Saint-Hilaire is one of 10 intrusions known collectively as the Monteregian Hills, which all rise above the relatively flat countryside near the mouth of the St. Lawrence River. Mont Saint-Hilaire is some 40 kms east of Montreal, rising to a height of 350 metres, being roughly circular in shape with a diameter of about 3 kms.

Mont Saint-Hilaire is an alkaline intrusive complex with dominant rocks being nepheline syenite and sodalite syenite. Globally, this type of alkaline complex is very rare – known examples exist on the Kola Peninsula [Russia], in Norway, Greenland and Guinea [West Africa].

Quarrying for road metal and concrete aggregate on the flank of MSH began in 1959 and continues to this day. After several years, mineral collectors became aware of some rare and unusual mineral species being exposed in the quarries operating on the NE section of the mountain. Over the past 50 years these quarries [the Poudrette and the De Mix, the latter formerly known as the Desourdy and the Uni-Mix quarry] slowly merged their operations into one, the site now simply referred to as Mont Saint-Hilaire. Francine informed us that unfortunately the current owners no longer allow collecting by the public, a past practice which was sporadically enjoyed by mineral collectors for years.

The MSH quarry is internationally famous for the number of different, rare or unusual mineral species found there. Francine supplied a list [as at 2006] naming 375 species, with a further 42 “unknowns” still under investigation. Work to identify these has continued and the list is expected to top 400 in time.

Incidentally, it is topical to note that a perusal of the MSH species list has more than 50 minerals which contain the REE’s cerium and yttrium, and a couple of others with lanthanum.

Francine then explained that some 30 species from MSH were known to provide rare and unusual gem material. We discussed some of these and were shown examples of rough and cut stones for our inspection.

One of these was carletonite, where MSH is the type locality and only known source of this beautiful blue mineral. Another was villiaumite, first discovered in 1908 on the Islands of Los, Guinea and named after the French explorer Maxime Villiaume. There was some discussion among the faceters in our group

on the cutting of this material, when we learnt that hardness was only 2 – 2.5, with perfect cleavage and it is water soluble!

Serandite at MSH is famous for the crystal size found there [up to 20 cm long and 7 cm across] and we saw a nice example of this mineral.

Quintinite is named after Quintin Wight, a significant author on mineral studies of MSH and the author of The Complete Book of Micromounting [1993]. Quintinite also has a hardness of 2 and can be pleochroic.

Francine showed us several samples of hackmanite [a variety of sodalite] and also pleochroic, We saw these gems undergo a colour change and exhibit an inner glow by reacting to a UV light source [phosphorescence]. Other minerals mentioned during the talk were remondite – Ce, bastnasite - Ce and catapleite. This latter mineral, along with serandite, are the two species most sought after by serious MSH collectors. Catapleite has been found at MSH from micro crystals to superb groups and rosettes to 15 cm across!

Francine concluded a most informative talk by referring members who wish to know more about Mont Saint-Hilaire to the following reference:

The Mineralogical Record V 21 #4 July-August 1990 – [A special issue of this mineral magazine devoted to MSH].

Another book specialising in Mont Saint Hilaire is:

Mandarino J.A. and Anderson V. [1989] Monteregian Treasures – The Minerals of Mont Saint-Hilaire 281pp Cambridge University Press ISBN 0-521-32632-X



taken 1981 Poudrette Quarry on left,
De Mix Quarry on right



taken 1987
wall 200 feet high
Benches 20/25 metres each

New Members

Welcome to new members Tony Gates, Angela Riganti, J.Lynn Sunderland, Larry Callaghan and Debbie Callaghan.

Field Trips 2012

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

If you are interested in attending these field trips please put your name on the notice board at the Lapidary and Rockhunting Club for the relevant field trip.

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.

THE WESTERN AUSTRALIAN LAPIDARY AND ROCKHUNTING CLUB INC. 31-35 Gladstone Road, Rivervale, 6103. Rivervale W.A.	
PROPOSED 2012 ACTIVITIES & EVENTS	
April 6 th -9 th	Mingenew area
May 13 th	Lake Clifton & Abington Village
June	Exhibition – no trips
July 14 th -28 th	long Rockhunt to Mukinbudin, Golden Valley, Lake Seabrook, Condamin Rock, Mt Palmer
August 19 th	Rockingham Eco Centre
Sept 16 th	Toodyay for crystals
Sept 29 th , 30 th & Oct 1st	Moorra & Bindi for chert & anthophyllite
Nov 18 th	Club Auction
Further 2012 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 repellent. 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.

Committee Members	
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