



Mineralogical Society of Western Australia (inc.)

October 2004

Volume 4, Issue 4

Vice Presidents Report

Well here we are again just a couple of months away from Xmas. The weather is fining up and we have some of our members off to the Mt Farmer pegmatite. Anyone still thinking of going should contact Suzanne on 94021267 re details for departure etc.

The committee for the 2005 Minsoc Seminar met recently at President Jim's house we thank him and his wife for their hospitality. It was a rewarding meeting and we have put all our plans into action with regard to the respective roles for each committee member. We are confident that with a good attendance we shall have a successful Seminar. Recent indications are that we shall have several overseas visitors. An interesting field trip itinerary has been put together by John Reeve for those wishing to partake after the seminar.

The AGM was not well attended however, but for those who did, we were treated to a most enjoyable talk by Jenny Bevan curator of the E.D. Clarke museum, on the Minerals of Tasmania. This was a PowerPoint presentation which with the aid of a computerized projector we were shown some delightful photos of both Tasmania and its minerals. Jenny has most graciously offered to come and talk to our group again on another topic in the near future. Thankyou Jenny. Try this out <http://www.earthmuseum.segs.uwa.edu.au/>

Our most recent foray to the "Muka" pegmatites turned out to be one of the most enjoyable trips that I have personally collected on.

With the assistance of Stewart from the WA Lapidary Club we managed to open up a previously worked pocket of Smokey Quartz Xls and much to our delight we able to recover a few nice specimens. Some of these being well formed and having some interesting inclusions. More about these in our next newsletter.

Good hunting to those on the trip. Will see you all at the meeting Wednesday Oct. 6th.

JeffM (ed)

Forward Diary 2004

February 4th
Club Meeting

April 7nd
Club Meeting

June 2nd
Club Meeting

August 4th
Club Meeting

October 6th
Club Meeting

*Our Guest speaker for Oct is
Ben Guric and he will be
speaking on the minerals and
mines of the Burra Peninsular
in South Australia*

December 1st
Club Meeting

Newsletter Contents.

Vice Presidents Report

In the Mail bag

Historical Notes

Collectors Guide to Type
Minerals of WA.

Noel Walkleys Field Trip
Survey Chart

IN THE MAIL BAG by John Reeve

Since the last issue of the Society's Newsletter, the Postman has been busy delivering a variety of mineralogical literature.

Australian Journal of Mineralogy

The June, 2004 (Vol.10, No.1) issue contains a wealth of reading. The feature articles are:

New data for boothite, $\text{CuSC}^{\cdot}\text{PI-I}^{\wedge}\text{O}$, from Burruga, New South Wales (*P.Leverett, A.R.*

McKinnon and PA. Williams)

Secondary bismuth and molybdenum minerals from Kingsgate, New England district of New South Wales (*J.L. Sharpe and PA. Williams*)

Minerals from evaporative basins in the Mallee District, Murray Basin, south-eastern Australia (*P.Sutton*)

Metanatroautunite ('sodium autunite') from the Lake Boga Granite, Victoria (*S.J. Mills*)

Other items in the Journal are: What's New in Australia, What's New in South Africa, Obituary - Frank Bussat, Book Reviews and Mineralogical Events.

An advertisement for the 2005 Seminar to be held in Perth is prominently displayed on page 2.

If you do not already subscribe to this great Journal, I would urge you to do so immediately. The subscription is \$28.00 per annum for two issues. The Journal is a must for any serious mineral collectors

Subscriptions should be sent to: The Treasurer, AJM

**C/- Department of Mineralogy
Museum Victoria
Post Office Box 666E Melbourne
Victoria, 3001**

The Mineralogical Record

The July-August 2004 (Vol.35, No.4) features two articles:

History of the Okiep copper district, Namaqualand, Northern Cape Province, South Africa (*B. Cairncross*)

Large clintonite crystals from the Crestmore quarry. Riverside, California (*C. Forrester*)

The Columns section of The Record contains Abstracts of new mineral descriptions prepared by J.A. Mandarino. The Abstract has two entries of particular interest to Australian collectors:

Hillite, $\text{Ca}_2(\text{Zn},\text{Mg})(\text{P}_04);, .2\text{H}_2\text{O}$ from Reaphook Hill, South Australia. The mineral is named for Dr. Roderick Hill (1949 -), Chief of the Mineral Research Division, CSIRO, Melbourne, who first described the mineral and recognized it as a potentially new species.

Hoganite, $\text{Cu}(\text{CH}_3\text{COO})_2\cdot\text{H}_2\text{O}$ from the Potosi silver-lead-zinc deposit, 2 km northeast of Broken Hill, New South Wales. Named for Graham P. Hogan (1957 -) of Broken Hill, a miner and well-known collector of Broken Hill minerals.

Micro-scope (Newsletter for the micro-mineral collectors of New Zealand)

This extremely informative Newsletter is designed to keep micro mineral collectors abreast of collecting and mineral news in New Zealand.

From Bernie Day, Marketing Manager, Australian Journal of Mineralogy (11/09/04)

Bernie writes seeking assistance from the Society -

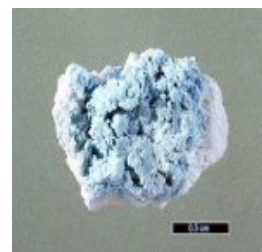
"Firstly - is there any contribution for the "What's New" column? There seems to be very little that is new coming forward at the present time; or is it that things are not being reported?"

The "Collector's Cabinet" has been going very well, thanks mainly to NSW, and I hope all States will contribute to support this excellent idea. I am pushing this sector again with all the Societies; and hopefully we will get better support in the future - so please push it again with your members, so that we can get some great new ideas coming forward for all to share."

Members: Please support Bernie's request. Many of us have made significant finds and it would be great to see or read of your find in the AJM. Let me know what you have found so we can pass the information onto the AJM.

John Reeve

Secretary/Treasurer



Comments: Pale blue earthy boothite with white halotrichite. **Location:** Copiapo, Atacama, Chile.

HISTORICAL NOTES
EARLY HISTORY OF THE GEOLOGICAL SURVEY OF WESTERN
AUSTRALIA 1847 TO 1896

The following historical note is drawn from A. G. Maitland's *The Geology of Western Australia (Report 58)* in the Geological Survey of Western Australia Bulletin No. 64.

Dr. F. von Sommer was the first official geologist employed in Western Australia and held office from 1847 to 1851. Maitland (1915) recorded that neither the maps nor the reports were published, although some articles occurred in literature between 1848 and 1849. The original map drawings of Dr. von Sommer were discovered early in the 1900's and are preserved in the historical collection of the Survey.

After an interval of 21 years, during which time excellent geological work was accomplished by the Gregory Brothers, Mr H. Y. L. Brown was appointed to the post of Government Geologist. During his years of tenure. Brown prepared three geological maps and ten reports dealing principally with the southern portion and maritime portions of the State.

In 1882, Mr E. T. Hardman, formerly of the Geological Survey of Ireland, was appointed Government Geologist. His work was confined chiefly to the Kimberley Division and laid the foundation for the geology of that Division. In consequence, Hardman played an important role in opening up the State's first goldfield. Hardman founded the Geological Museum at Fremantle. This collection was ultimately merged into the Western Australian Museum.

Mr H.P. Woodward became the fourth Government geologist in 1887 and held the position until 1895. As Maitland described, Woodward conducted the activities of the Survey with a limited staff and still more limited appropriation. Nevertheless, Woodward issued 21 reports and six geological maps.

A.G. Maitland assumed the position of Government Geologist after Woodward's tenure was completed. With the discovery of gold in the Eastern Goldfields, the following years were to become very important to the State.

Reference:

Maitland, A. G. (1915) *The Geology of Western Australia (Report 58)* in *Geological Survey of Western Australia Bulletin No. 64*, p.79 - 91

A COLLECTOR'S GUIDE TO WESTERN AUSTRALIAN TYPE MINERALS

MINERAL:

Sodium-pharmacosiderite $(\text{Na,K})_2\text{Fe}_4(\text{AsO}_4)_3(\text{OH})_s.7\text{H}_2\text{O}$

TYPE LOCALITY:

Butcher Bird Gold Mine, Marda. [30° 15 S, 119° 15 E]

MODE OF OCCURRENCE/ PHYSICAL DESCRIPTION:

"Pharmacosiderite" is recorded by Simpson in "The Minerals of Western Australia" from material collected at the Butcher Bird Gold Mine, Marda. Simpson (1952) described the occurrence in the following manner:

"Pharmacosiderite and scorodite, resulting from the oxidation of arsenopyrite, with which they were associated, were plentiful in one portion of the auriferous quartz reef in the Butcher Bird Gold Mine. The pharmacosiderite is the most striking constituent of the ore, and is found in well-formed crystals of a rich green colour, ranging in size from 1 to 4 mm. The crystals are developed either as a partial/tiling of cavities in quartz, which were once filled with arsenopyrite, or embedded singly or in groups, in the centre of masses of scorodite.

The common form is the simple cube, but occasional crystals are seen, in which half the corners of the cube are truncated by the faces of the tetrahedron, or by oscillatory combinations of the cube and tetrahedron. Interpenetration twins, resembling those of fluorite, are fairly common." [Vol. 3, p. 354]

During a research project on the minerals of the pharmacosiderite group, Peacor and Dunn (1985) identified a sodium rich member of the mineral group in a specimen from Marda. The subsequent type specimen from Marda containing the sodium-pharmacosiderite consisted of quartz and arsenopyrite with the arsenopyrite being altered leaving dissolution vugs. The Sodium-pharmacosiderite is cubic in form, pale green in

colour with no obvious colour zoning and has a vitreous lustre. Associated minerals are scorodite, arseniosiderite, a yellow pharmacosiderite and a yellow powdery member of the jarosite group.

As previously noted, the identification of Sodium-pharmacosiderite arose from a survey of the chemical composition of a large number of specimens in the pharmacosiderite group. This group is dominated by the common large potassium or barium cations, therefore the discovery of a sodium-rich sample prompted further investigation. Attempts to find additional samples of Sodium-pharmacosiderite within the study suite were unsuccessful.

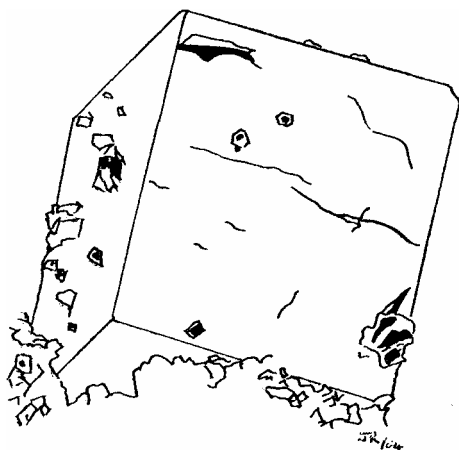
NAMED FOR:

The composition and relationship to pharmacosiderite.

REFERENCES:

Peacor, D.R. and Dunn, P.J. (1985) Sodium-pharmacosiderite, a new analog of pharmacosiderite from Australia and new occurrences of barium-pharmacosiderite. *The Mineralogical Record*, **16**, 121 - 124.

Simpson, E.S. Minerals of Western Australia. W.H. Wyatt, Government Printer, Perth, Western Australia 1952



Line drawing of a scanning electron microscope (SEM) image of a cubic crystal of sodium-pharmacosiderite on a druse of scorodite.
[Smithsonian Institution specimen # 146392, Marda, Western Australia]

Note prepared by John **Reeve**, Sept. 2004



Comments: Quartz with an exposed vug lined with lustrous bluish colored crystals of scorodite to 4 mm across. **Location:** Hemerdon Mine, Sparkwell, Devon, England. **Scale:** 5 x 3.6 cm.



Comments: Translucent yellow-brown cubic Pharmacosiderite crystals. **Location:** Wheal Gorland, Saint Day, Cornwall, England.

Member Survey Chart

Location	Last visited	Interest	No interest	High interest.
Catlin Ck Ravensthorpe	13-4-2001			
Spodumene, Tantalite, Lepidolite.				
Riverina Stn Menzies	02-6-2001			
Beryl, Quartz, Albite, (Emerald).				
Toodyay Rifle Range	14.4.2002			
Clear Quartz crystals				
Mt Edon Paynes Find.	13.7.2002			
Albite, Beryl & Columbite.				
Karloning Mukinbudin.	7.9.2002			
Allanite, Fergusonite.				
Mt Mulgine	25.04.2003			
	25.4.2003			
Molybdenite, Fluorite,				
Rothsay	26,4,2003			
Yellow Beryl, Albite				
Mongers Lake	27,4,2003			
Tourmaline.				

My thanks go out to Noel Walkley for all the time he spent compiling the details to make this chart. Could you all please print out an extra copy of this page and mark it indicating your interest in any of these sites for a revisit. I shall collect them at the next meeting.

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Membership Details:

Joining Fee \$5.00

Adult Member \$20.00

Newsletter only \$15.00

Email Newsletter- No charge to Min Soc members. Email to newsletter editor at jandsman@bigpond.net.au

An application form for membership can be obtained by writing to: -

The Secretary, J. Reeve

Mineralogical Society of Western Australia (Inc)

13 Buchan Place, Hillarys, W.A. 6025

Ordinary meetings of the Society are held on the **FIRST** Wednesday in February, April, June, August, October and December in the **W.A.Lapidary and Rock Hunting Club rooms 31 Gladstone Street Rivervale**, commencing at 7.30pm. The January meeting will involve social activities at a time and place to be notified.

Visitors are most welcome

Newsletter of the Mineralogical Society of Western Australia
13 Buchan Place, Hillarys, 6025
Western Australia, Australia

OUR SOCIETY'S MISSION

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.

OBJECTIVES

Whilst focusing on the minerals of Western Australia, the overall objectives of the Society shall be:

- (a) To advance the science of mineralogy.
- (b) To disseminate knowledge of minerals, their occurrence and associations.
- (c) To establish and maintain a register of mineral species and their occurrences in Western Australia.
- (d) To increase knowledge of related fields of earth science.
- (e) To keep members abreast of developments in mineralogy.
- (f) To encourage an appreciation of the aesthetic value of minerals.
- (g) To promote the proper care and preservation of mineral specimens.
- (h) To promote the conservation of the geologically unique and of the environment in general.
- (i) To provide a means of contact between professionals and amateurs in the various fields of the earth sciences.
- (j) To foster a sense of cooperation and understanding between individuals, institutions and resource companies in the field of mineralogy.
- (k) To provide a forum for debate and discussion on matters relating to mineralogy.

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