



THE  
**MINERALOGICAL SOCIETY**  
OF  
**NEW SOUTH WALES INC**

C/o School of Natural Science  
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**NEWSLETTER**

**AUGUST 2012**

**The August Meeting is the Society ANNUAL GENERAL MEETING and will be held on Friday the 3rd of August 2012 at 7.30 p.m. in the LZG14 lecture theatre on the ground floor of Building LZ in the Science campus of the University of Western Sydney on the corner of Victoria Road and James Ruse Drive in North Parramatta.**

**2012 ANNUAL GENERAL MEETING**

The A.G.M. will commence at 7.30 p.m. with the President's report for 2011/2012 followed by the Treasurer's report and presentation of the annual financial accounts for 2011/2012 and the election of the Society Committee and office-bearers for 2012/2013.

During the A.G.M. any other business may also be raised and discussed.

The Election of Office-Bearers for 2012/2013.

In accordance with the Society Constitution the entire current Committee retires at the commencement of the A.G.M. and all positions are open for nomination and election. Nomination forms for election to the 2012/2013 Committee were circulated with the July Newsletter and nominations should have been received before the commencement of the A.G.M. A member can be nominated for but cannot hold more than one position. Only financial and Honorary Life members of the Society are eligible for nomination or allowed to participate in any voting.

After the A.G.M. has been concluded the Betty Mayne Memorial Lecture will be given this year by

**Professor Peter Williams**

Who will be speaking on : -

**'Gazing into the Mineralogical Crystal Ball. Where is it all going?'**

## FORTHCOMING MEETINGS

Society General Meetings will be held on the first Friday of each month for the rest of the year. Subject to circumstances some changes to the following schedule of program subjects and speakers may have to be made in due course.

- September 7th:       Member's Forum: - 'Members Collections and Recollections – Kingsgate'.  
Members are particularly invited to bring in specimens, information, collecting experiences and anecdotes from this significant and productive site.  
There will also be a talk to be given by Sylvia French on 'Gem Analysis'.
- October 5th:         'Amethyst – The pretty and the unusual'. Display by members.  
Lecture and photographic display by Gary Sutherland on 'The Museums of England'.
- November 2nd:       Depending on the situation with the development of working at Mineral Hill and speaker availability it is hoped that there will be a lecture on 'Mineral Hill Update'. Alternatively there may be a lecture to be given by Dr Peter Leverett on 'New Minerals from Australia'.
- December 7th:       Annual Christmas Social and 'Swap n' Sell.
- February 1<sup>st</sup> 2013:   'Minerals of Arizona'. Montage of photographs by Paul Melville, introduced and described by John Rankin.
- March 1<sup>st</sup> 2013:       'Back from Tucson Report' by Peter Beckwith and a lecture to be given by George Stacey on : - 'Mount Isa – The Mine and the Spinifex'.
- April 5<sup>th</sup> 2013:       Program to be confirmed.
- May 3<sup>rd</sup> 2013:        Member's MiniAuction.

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## VALE HARVEY HENLEY 1952-2012

It is with deep regret that it was learned that Harvey Henley has passed away after a year battling a serious illness. The following obituary has been provided by John Chapman.

Harvey Henley passed away peacefully on the 27<sup>th</sup> of July, succumbing to an aggressive brain tumour. Harvey and his wife Joan were prominent members of the mineral fraternity and in the 1980s before their move from Sydney they were particularly active in the Mineralogical Society, including running numerous field trips. But even in Armidale and later in Maitland their house was always open to mineral collectors who happened to be passing by.

Harvey was one of life's true gentlemen and I count myself lucky to have shared many memorable collecting trips with him. He had a knack of finding good specimens and somehow always won the toss when it came to dividing up the spoils. Although his life was cut short Harvey made the best of his time – his workmates at the Geological Survey didn't call him "Holiday Harvey" for nothing.

John Chapman  
July 27<sup>th</sup> 2012

## WELCOME

Welcome to new members : -

Nathan Roberts-Osbourne, Ted Storm of Inverell  
and re-joining ex-members Harry and Margaret Kirschner.

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## JULY MEETING

The Meeting was opened by the Society Vice-President John Chapman who reminded members that the next month's Meeting would be the **Society A.G.M.** Among other matters the Meeting would be dealing with electing the Committee for the 2012/2013 year. Two members of the current Committee had had to drop out during this year and otherwise at the commencement of the A.G.M. all positions were open for election. Members were urged to consider whether they could offer their services on the Committee and after perhaps discussing this with current members to offer their names for nomination.

Arthur Roffey reported that in the latest issue of the **Mineralogical Record** there was an article '**Micro-photography**' which should be of substantial interest to the Micro-Mineral Collecting Group.

With no further announcements the Vice-President turned the Meeting over to the first speaker for the evening.

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### **The Museum of Lead Mining at Wanlockhead in Scotland**

**Gary Sutherland.**

Wanlockhead is a small village in south-western Scotland about 50 kilometers north of Dumfries. It is said to be the highest village in Scotland at 1531 feet (about 467 meters). Lead, copper, zinc, silver and some gold have been intermittently mined in the area from very early times, first by the Romans. The nearby village of Leadhills about five kilometers away is said to be the second highest village at 395 meters and is also in a mineralized area.

Gary Sutherland's interest in the mineral significance of Wanlockhead was aroused some twenty-five years ago by his obtaining a specimen of calcite, actually originally purchased from Arthur Roffey. Subsequently and given Gary Sutherland's family background which is from Scotland, he has tried to find more specimens from the area, particularly during a holiday trip to the U.K. last year which included visiting Wanlockhead. Unfortunately as he found, specimens from the locality are very few and far between but there was a small museum in the village with a representative collection of minerals and mining equipment and the village and surrounding countryside was very scenic.

The lecture was substantially illustrated by a number of photographs of the Scottish countryside, the village, the surface remains of the mining operations and of many of the minerals found there. The photographic montage initially led the audience through the countryside of rolling green hills with a covering of heather in places, along a winding road up through a glen to the village. Images from around the village and surrounding slopes showed a number of derelict and some partly restored mining

buildings. Remains of some of the mining operations including the dumps are almost within the village itself. The New Glencrieff mine is a short walk from the village centre whereas others are further away up the nearby hill slopes. The countryside was very attractive at that time of the year and luckily for the speaker he had chosen a fine day to make his visit, speculating that the area would be very bleak in the winter.

Geologically Scotland was subjected to a series of uplifting processes during the Silurian period and then the lead-zinc mineralisation occurred deep underground during the Carboniferous period and has eventually been exposed due to erosion. A map was shown indicating a multitude of small faults through the area which miners have investigated over the years. Mining operations initially conducted by monks commenced in 1293 and were continued very intermittently with periods of development and then decline over the following centuries. There was a resurgence of mining in the 1500s under the influence of a Dutch gold miner Cornelius Hardskins. (Whose name was actually Cornelius de Vois. 'Hardskins' was a name given by locals to foreigners). Then in the sixteenth century there was sufficient gold being recovered to use some of it for coinage for Mary Queen of Scots and to incorporate into the Scottish crown. Steam power introduced in the middle of the eighteenth century enabled deeper mining for a while and at this time three new minerals were found and described from the area, leadhillite, lanarkite and caledonite, (lead and copper sulphates with carbonate). MINDAT lists 78 minerals that have been found and identified from the Leadhills and Wanlockhead area however as the speaker found, minerals from this locality apart from being scarce also attract extremely high prices, even very small inconspicuous ones. Mining finally ceased in the area in about 1960.

There were a few views of the small mining museum which has been set up in Wanlockhead. It had a selection of minerals although did not offer a large amount but the speaker managed to obtain a few photographs. Otherwise Gary Sutherland worked through a large number of photographs of Wanlockhead-Leadhills specimens, many from his own collection and some bearing names reflecting the novel names of the shafts from which they had been recovered.

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John Chapman introduced the next Speaker for the evening. Larry Barron had been a colleague of John Chapman's at the Geological Survey for many years. He was originally Canadian and had come to Australia in 1970 establishing his credentials initially as a rugby player!. He had worked for many years at the Survey as a petrologist and has been particularly involved in studying the diamond deposits in eastern Australia being responsible with others for the subduction theory of their origin and this would be the subject of his lecture this evening.

## **Australian Diamonds**

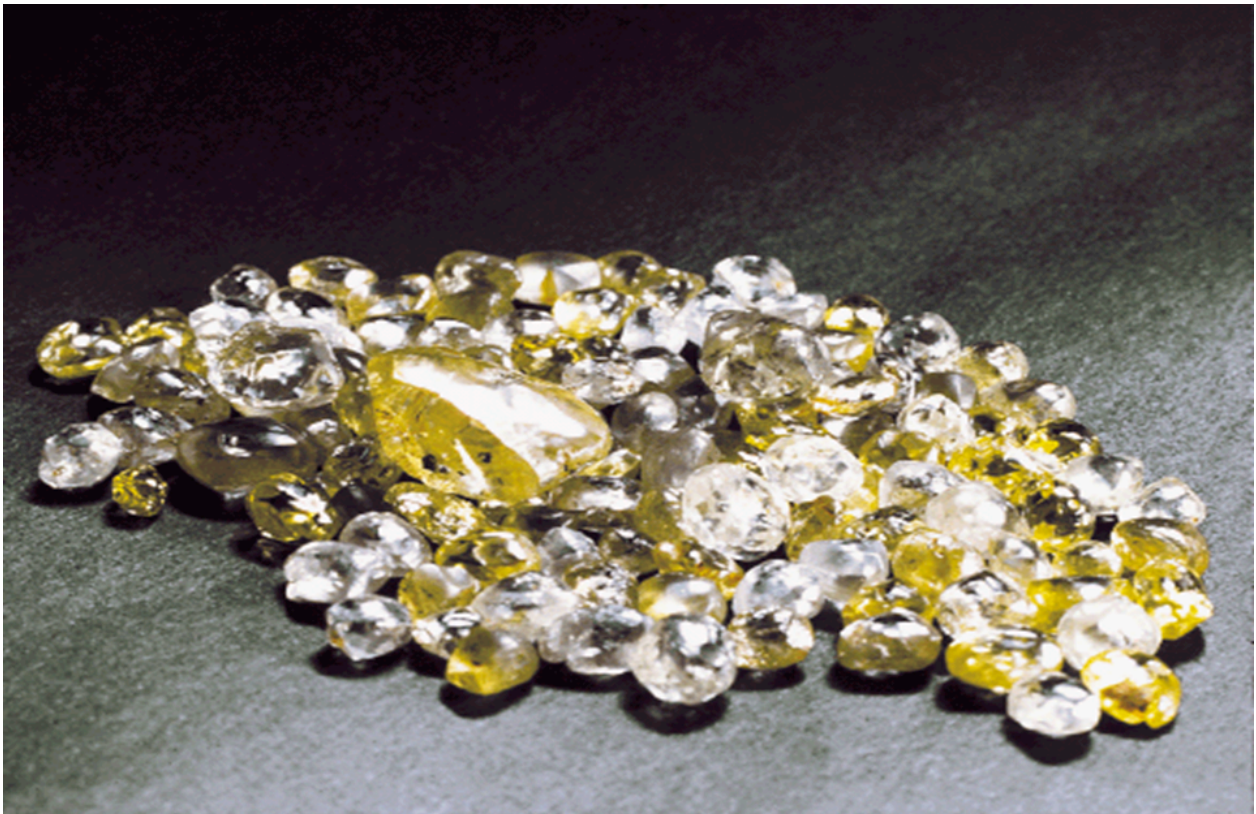
### **Larry Barron**

Larry Barron has worked for a number of years to solve the mystery that miners from up to 120 years ago posed which was to explain the origin of diamonds in eastern Australia when finds were being made a long way from conventional sources. The speaker had commenced his work with the Geological Survey and latterly with the Australian Museum and the University of NSW. He particularly paid compliments to fellow researchers including his wife Jane Barron and to Steve Lishmund, Tony McNevin, Geoff Oakes, and Lin Sutherland.

A total of approximately half a million carats of diamonds or about two million stones have been found in eastern Australia, mostly from the Copeton and Bingara area but also smaller amounts from near Cudgegong, Mittagong, Crookwell, Mount Airly and a number of other sites, mostly in New South Wales

but also from Queensland and Victoria. The diamonds have almost all been alluvial with only about one hundred out of the two million being found embedded in igneous rock. The origin and formation of them has long been a cause for conjecture given that the characteristics of many have suggested a process different to the conventional one which stipulated a source from a depth of 100 to 150 klm and being brought to the surface in kimberlite or lamproite diatremes.

The supposition of a local source for the eastern Australian diamonds did not suit the 'men in black' - as the speaker referred to them, - diamond-origin experts from overseas who insisted that the diamonds had to have come from a craton, a major earth crust structural unit, the nearest of which was in Antarctica. The diamonds then would have been distributed by glaciers when Australia was still attached to Antarctica. Maps displayed by the speaker of diamond occurrences throughout the World indicated that most of the World's major diamond deposits were near cratons, in Africa, India, Russia, Canada and Brazil. The NSW occurrences near Copeton and Bingara therefore were clearly anomalous. The eastern Australian diamonds have been generally very bright, mostly of gem quality, with round almost soccer-ball habits and sharp but curved edges. One of the most common inclusions in them has been the presence of coesite. The only other major occurrence of this mineral that was known for a long time has been in meteorites or meteorite impact craters.



A selection of eastern Australian diamonds indicating their overall bright, gemmy and rounded habits.

The first person to suggest that diamonds in eastern Australia were derived from subduction processes was Nick Sobolev in the 1980s. Subsequently Larry Barron and the other researchers have gradually established that the eastern Australian diamonds and other apparently anomalous deposits in other parts of the World have been derived from a subduction process where a slab of the Earth's crust becomes subducted under the edge of a continental plate. Diamonds have been formed within the subducted rocks but under different conditions than those found associated with cratons and accordingly with identifiably different features of internal pressures, inclusions, nitrogen content, carbon and other

isotopes and of a different age to the cratonic stones. Notably diamonds in New South Wales may have been formed within the Phanerozoic (life-containing) period of time, within the last 500 million years compared to the conventional age for cratonic diamonds of over 1,000 million years.

The lecture was very thorough and detailed, Larry Barron ranging over a number of aspects of his research including describing his field prospecting expeditions when he was still living in Canada and noting that among other hazards in the field in that country one had to watch out for bears!. More particularly however the speaker with the aid of a large number of images, diagrams, maps and charts described the eastern Australia diamonds, the differences between stones from different sites, the means of examining and identifying them and the significance of the finds. There were also a number of images shown of the Copeton and Bingara workings, surface and underground and of the countryside noting that the hard-rock source of the diamonds from these sites has not yet been identified. The source has been presumed to be a diatreme, a volcanic pipe, of which there are many throughout eastern Australia and the speaker speculated that any one or more of them might be diamond-bearing with the prospect that these may be found in time and commercially exploited, possibly very profitably.

In conclusion Larry Barron paid compliments to a number of organisations and people who had helped him and his colleagues in their research, to the Department of Mineral Resources for employing him for many years, to Cluff Resources who had been generous in supplying diamonds for examination and donating them to the Australian Museum's collection. There have been fundings from several organisations such as Rimfire Pacific who made all of their exploration results available to the researchers and other workers who had helped including Doug Austen who had polished windows into a number of stones for these to be examined.

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## **FORTHCOMING EVENTS**

### **GEM SHOW by the BLAXLAND GEM & MINERAL CLUB**

Over Saturday and Sunday, the 18th and 19th of August 2012

Being held in the Glenbrook Community Hall, Great Western Highway, Glenbrook, NSW  
(Next to Glenbrook Theatre). Just west of Information Centre.

Displays of lapidary work and gem, mineral and crystal sales. Refreshments available.

*<http://www.freewebs.com/blaxlandgemmineralclub/BGMCshow.htm>*

8 am to 4 pm Daily. Entry: Adults: \$3 Children \$1

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### **The CUMBERLAND GEM & MINERAL SHOW**

Over Saturday and Sunday the 25th & 26th of August 2012  
in the Roselea Community Centre, Pennant Hills Road, Carlingford.

SALES of jewellery, gemstones, beads, opals, mineral specimens from all over the world,  
tools and equipment for lapidary and beading work, metaphysical and healing crystals.

Displays of mineral specimens, cut & polished stones, carvings & gemstones.

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## **GEMKHANA 2012**

In the Showground at Mudgee over the long weekend Saturday, September 29th 10.00am-5.00pm;  
Sunday, September 30th 10.00am-5.00pm; & Monday, October 1<sup>st</sup>, 9.00am to midday.

'We are returning to Mudgee Showground this year'.  
The Gemkhana is the Annual Gem & Mineral Show and Competition of lapidaries  
with entries from all across NSW and quite a few from interstate.  
Presented by the Gem & Lapidary Council of NSW Inc.

Dealers and tailgaters will attend. We will have children's activities. Refreshments will be available.  
There is wheelchair access and plenty of parking. On-site camping is available.  
Contacts are :- Una (Co-ordinator) 02 4759 2440; Arthur (02) 4572 5812; Marilyn 02 9635 8218.  
E-mail to : -[gemplapidarycouncilnsw.org.au](mailto:gemplapidarycouncilnsw.org.au)  
or Website <http://www.gemplapidarycouncilnsw.org.au/gemkhana.html>

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## **ANNUAL GEM FESTIVAL by the CENTRAL COAST LAPIDARY CLUB**

Saturday & Sunday October 13th & 14th at the Mingara Recreation Club,  
Mingara Drive, off Wyong Road, Tumbi Umbi.  
Saturday 13<sup>th</sup> 9.00 am to 5.00 pm, Sunday 14th 9.00 am To 4.00pm  
Club Competition and dealers selling tools and equipment.  
Beads, Crafts, Minerals, Faceting And Cabbing Materials.

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## **GEM SHOW 2012**

**By the Northern Districts Lapidary Club**  
**Theme: 'The Origin of Gemstones'**

Friday, Saturday & Sunday, the 26<sup>th</sup>, 27<sup>th</sup> & 28<sup>th</sup> of October 2012.  
In the Beecroft Community Centre, Cnr Beecroft & Copeland Roads. Beecroft.  
Gems, Jewellery, Minerals, Fossils, Slabs, Lapidary Books, Machinery,  
Workshop Demonstrations, Plants, Free Light Refreshments.  
Small entry charge. Inquiries to : -  
[www.ndlapidary.org.au](http://www.ndlapidary.org.au) Telephone 9484 0014 or 9878 4073

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## **The November**

### **WINDSOR JEWELLERY, BEADING, GEM & MINERAL SHOW**

Saturday & Sunday, November 24<sup>th</sup> & 25th 2012  
In the Windsor Function Centre on the corner of Dight & Macquarie Streets, Windsor.  
Next door to Windsor Public School.

Saturday open from 9.30 a.m. to 5.00 p.m. & Sunday from 9.30 a.m. to 4.00 p.m.  
Admission \$5, children \$1. Light refreshments.

SALES of jewellery, gemstones, beads, opals, mineral specimens from all over the world,  
tools and equipment for lapidary and beading work, metaphysical and healing crystals.  
Inquiries to Peter Beckwith on 0412 333 150.

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**GEMBOREE 2013**  
**AUSTRALIA'S 49TH NATIONAL GEM AND MINERAL SHOW**

Easter 2013 from the 29<sup>th</sup> March to 2<sup>nd</sup> April 2013

In the Murray Bridge Showgrounds on the Princes Highway at Murray Bridge, South Australia

Hosted by the Gem & Lapidary Clubs Association of South Australia Inc under the auspices of the  
Australia Federation of Lapidary and Allied Crafts Association Inc (AFLACA).

**Gemboree 2013 Activities**

'Trade Dealers. A huge range of dealers specialising in everything from gems and minerals to  
fossils and findings have been invited to attend Gemboree 2013.'

'Micro-Mounting. This year in South Australia we have provided a specific location for those who  
undertake the art of micro-mounting.'

'National Gem and Mineral Competitions. Gems, jewellery, lapidary and allied arts and crafts  
together with fossils and minerals will compete for national honours.'

'Field Trips. Visits are being planned to fossicking sites and to specific sites for detectors and  
treasure-seekers.'

Enquiries to :-

The Gemboree Convenor – *sagemboreeconvenor@gmail.com*

Rennie D'Arcy on mobile 0412 414 129 or e-mail - *rennie.darcy@three.com.au*

Bookings and Tailgating Co-Ordinators

Anne Armstrong, e-mail *anne.armstrong38@three.com.au*

or Ian Everard by e-mail *ieverard@bigpond.net.au* or telephone (08) 8251 3348

Murray Bridge Visitor Information Centre. Telephone (08) 8539 1142

Website *www.murraybridge.sa.gov.au*

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