



LAPIS

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“SHARE YOUR KNOWLEDGE”

VOLUME FORTY SEVEN - NUMBER FIVE

MARCH 2011

CLUB NEWS

The next General meeting will be on **Tuesday 8th March at 8pm**. All members welcome.

Guest speaker

The guest speaker for March will be Shirley Seale, speaking on the AIF World War 1 horses and their fate

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FROM THE PRESIDENT

The secret of your successful Club membership is “Be Involved” It is the only way to know members other than your class instructor. The Committee continues to look for an Education Officer to liaise with class instructors. A person to obtain guest speakers. A person to organize Social Events. Even a Vice-President who aspires to be President would help! Can you be involved here?

Members should spend at least one day at the GEMBOREE in Bathurst over the Easter long weekend. The quality of the workmanship will give you new inspirations and ideas of what to do with your rocks which have lovely colours waiting to be brought out.

Your competition entry should already be submitted, but come along anyway to cheer on our Club. A coach is being organized so getting there is easy.

Bert has plans for an extended tour straight after the GEMBOREE, Perhaps you can be involved here. Day and weekend Field Trips are plastered all over the board by Ed. He really works hard to bring these opportunities to you. Don't let them slip away.

Your New Years Resolution should be: “Be Involved”

Diane Neasmith.

New Members

We would like to welcome our newest members
Christine Bowerman of North Ryde
Richard and Kim Kabat of Castle Hill
Lilly Smyth-King of Berowra
We wish them much enjoyment cutting gemstones and enjoying the other aspects of our Club.

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GO WEST GREY NOMADS!

AN EXTENDED FIELD TRIP.

After the Bathurst GEMBOREE at Easter we are organising a trip to the Macquarie Marshes where we will stay at Willie Retreat Caravan Park. This area is renowned particularly for its birds and other wild life, especially after the rains. Afterwards we will go on to White Cliffs to find our fortunes in opal.

This trip should take approximately two weeks, so if you are interested please put your name on the list in the cutting room or ring me for further information.

Bert Deane 9653 1849.

GEMBOREE COMMITMENTS

NDLC is committed to the judging of entries for the GEMBOREE.

Pencillers are required for the weekend 12th and 13th March.

Judging will take place at the Parramatta – Holroyd Lapidary Club rooms at 73 Fullager Rd, Parramatta, beginning at 8.30am for a 9am start.

If you are able to assist, please contact:

Barbara Try on 02 43936168 or email twotrys@bigpond.net.au; or

Club President Diane Neasmith 98692314, email dneasmith@ozemail.com.au

GEMBOREE 2011 BUS

A bus is being organised to leave Beecroft (opposite fire station), Wongala Road to the Gemboree on Sunday 24th April giving you about 4 hours to free range about the showground.

Leaving Beecroft at 8:30 am and returning by 5:00 pm. Bring nibbles.

There is a toilet on the bus.

Cost is \$42 per person. Payment required when booking seat. Gemboree tickets to be purchased on arrival.

Nivea Adami has volunteered to be Bus Captain. Payment can be made by cheque to The Secretary, NDLC, PO Box 59, Beecroft NSW 2119 or contact Ed by e-mail, etzed@optusnet.com.au for details about making a Direct Debit and Registration Forms (Word format)

NB *To ensure the bus is full, it is anticipated that offers will be made to other local clubs to so that NDLC will not bear costs for empty seats.*

Please make your decisions and bookings early to avoid disappointment. editor

Casting Weekend

A casting weekend is planned for the weekend **Sat.2nd and Sun.3rd of April**, with a **Clean-up day on Sat. 9th April** (to demonstrate how to finish your castings).

Details of costs and starting times are available in the Clubrooms.

If interested, please add your name to the List in the Clubrooms

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Auditor Required

An Auditor is required for the NDLC Accounts.

If you have suitable skills and qualifications and the time for this voluntary position, please contact club President Diane Neasmith or Treasurer Sharon Waters (see Club Directory)

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CONTAMINATION

If you cut cabochons then you **MUST** read this.

If you don't cut cabs you should still read this article.

We have recently had problems in the cutting room when Members on the final polish of their cabs suddenly find deep scratches in the stone. **Very**

frustrating and that means back to the glass and grit or sanding machines to start all over again.

Why does this happen? All it needs is just one bit of coarse grit remaining from an earlier step to suddenly appear on the polish lap and BINGO, you now have scratches.

That bit of grit does not get there by itself. It can only occur due to carelessness by me, you or maybe that other bloke.

Stones, dopping wax, finger nails and hands must be washed thoroughly before moving from one sanding or polish stage to the next. It is good practice to scrub finger nails **and the waxed side** of the stone with a nail brush or an old tooth brush.

Take care when you dop your stone that the wax is nice and smooth without wrinkles and creases that may hold grit. If needed, after you have dopped, warm the wax carefully in the flame until it runs nice and smooth and shiny.

Be aware when you are working the back of the cab using the glass and grit. As well as washing stone, wax and hands when you move to a finer grit wash the water bottle and the edges of the bit of glass. Use that nail brush.

If you use the old disc sander machines then you must be super careful with your cleaning.

Don't take a squirt water bottle or a 45 degree back guide off a sander machine and then use it over on a polisher. There **will be grit** all over the bottle and the back guide.

Don't assume that because the Nova diamond wheels are running 'wet' that washing the stone is unnecessary, it still is.

When cleaning down machines at the end of a class **DON'T USE** that dirty sponge over on the sink. It is full of grit. Use new paper towel on the polish machines and then use the sponge to clean the sink (with Jiff)

Contamination is not just a problem with us Cab cutters.

All these points are applicable to the Facetors.

The silver workers while using different polishing equipment still have similar problems.

Take care, be aware, and enjoy our beaut hobby.

jw

Field Trips Report.

Sunny Corner

Sunny Corner 11/12 February, E&T only attendees, travelled to Lithgow along the Bell-Line-of-Road with a very earthy orange red Sunset. Arrived at Lithgow in the dark, rather tired and happy to see the Motel, went in and signed in, when asked to make the payment, said we had already done so, they checked and said "no", it turned out that the Lithgow Tourist Park was across the road. "Smaller sign"

Saturday started Sunny, but as we hit the highway, the clouds came over, very dark. By the time we got to Sunny Corner, it was torrential downpour raining horizontal. We drove up Silver Avenue, a brief break, collected some samples (turned out to be the only ones for the day). Then the down pour started again. Drove up a bit further and the road turned into a track and then into a rut. With the rain belching fiercely horizontal, we decided to head for Portland and toured around the Cement works, the Technical Museum we wanted to visit was closed so back to Lithgow. The local radio reported that 100mm had fallen at Oberon. More rain and its only 1:00 pm in the afternoon. So we did some shopping, had some good prices in some of the brick-a-brack shops, the Angus and Robertson shop was having a 75% discount sale so got two books. Back on the Bell-Line-of Road, light shone on the Grose Valley escarpment, always a great site to see. Stopped at an orchard outside Bilpin High and picked 12 kg fresh apples and plums off the trees, good price at \$3.50 a kg, the apples are tasty with that fresh juice and clean white pulp, the plums are still firm. Looks like I picked up more fruit than rocks.

There was no big attraction with the specimens collected apart from flakes of yellow galena and a shimmering copper, a few blobs looked different as if cast then splashed around. Some crystals were very rhombic in shape.

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TRIPS IN MARCH

Weekend 4th to 6th March

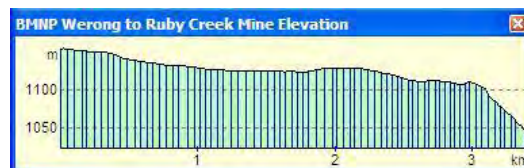
NOTE: The southern end of the Blue Mountains National Park has no, nil, none mobile reception. If you have not registered on the Field Trips Sheet at the Club premises, please e-mail Ed on

etzed@optusnet.com.au of your intention to attend before 6:00pm Thursday 3rd March.

There are three accommodation options for Friday night

1. Travel to Mt Werong Camping Ground (Hut) on the Yerranderie Road. (Pit toilet) 220 km
2. Camp at Million Dollars Acres at junction Jenolan Caves Road and Duckmaloi Road (Pit toilet) (160km)
3. Book accommodation at Oberon for Friday Night (180km)

Blue Mountains National Park, easy slow bush walk of 3.5 km to Ruby Creek Mine, start precisely at 10:00 am from Mount Werong



Campin
g
Ground
(Hut).

A
profile

of the tracks elevation shows much of the walk is along the open forest along the top of the Werong Plateau with a final 130m descent to the mines. You will need sturdy enclosed shoes, walking sticks, hat, sun cream, day pack, lunch, water, camera (sketch book optional). While in the National Park, we can take photos and leave footprints. If time permits, we will visit some other nearby mining sites on the plateau on the return journey.

Saturday night camping at Mount Werong Camping Ground. This is as far as caravans and trailers can drive along the Yerranderie Road and turn around easily.

Sunday morning we will head to Porters Retreat and then at 9:00 am depart to another location on the Little Retreat River. Needed:- pans for gold washing and sieves for gem stone prospecting. Activities will cease at 12 noon. I will be heading off to Peter Beckworth's Tucson's acquisitions of crystals, gems and minerals at Londonderry.

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Thursday 17th March Mystery Tour

Part 1. Morning walk around Old Mans Valley, one of the largest diatremes (maars) in the Sydney area.

Meeting at Rosemount Road, Hornsby, 4.3km walk, ascent 100m, descent 100m, 3 hours walk. Part 2. Lunch at Rosemount Road picnic area then a tour of a nearby feature. LIMIT 25, must register to participate. If you have not registered on the Field Trips Sheet at the Club premises, please e-mail Ed on etzed@optusnet.com.au of your intention to attend before 6:00pm Wednesday 16th March.

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Yerranderie June Long Weekend

Three couples have registered, Staying at the Post Office Bunk House with 6 rooms with 5 beds each, rooms will be shared between couples, leaving 9 places left. Saturday and Sunday night with optional Friday night. Overnight trippers welcome. Preference given to double nighters. A 50% deposit is required to book the rooms at a rate of \$44 per person per night. Saturday and Sunday night with optional Friday night. Payment can be made by cheque to The Secretary, NDLC, PO Box 59, Beecroft NSW 2119 or contact Ed by e-mail, etzed@optusnet.com.au for details about making a Direct Debit and Registration Forms (Word format) **See last page of lapis**

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State Forests

Currently the field trips officer is negotiating with State Forests to get a Special Purpose Permit for organised field trips for members The permit cannot be used by individual members on their own trips. The requirement for the permit is that the following documents must be presented for each trip.

- Application Form
- Copy of conditions signed
- Copy of current public liability insurance
- Map of the area you want to use (to make sure we don't have operations planned there which would make it unsafe)
- A site safety plan/emergency plan (proforma attached or you may have a club safety plan already)

Only Club Members can attend Field Trips into State Forests as our Public Liability only covers members.

Finally: The Bulahdelah Field Trip has been swapped with the Bow Wow Gorge walk. Bulahdelah = Paddys Hill now 6/7/8 May General Club Meeting Saturday 16th July Bow Wow Gorge now Sunday 17th July

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The following table is a list of minerals found and amounts tonnage mined to extract economic ores in the Yerranderie area. There are numerous other mines not listed in the below list.

Nevada Mine	
Deposit Name	
Production	203 t
Deposit Model	hydrothermal - vein
Deposit Size	Small
Deposit Classification	epithermal Pb-Ag-Au
Major Commodities	Pb, Ag
Minor Commodities	Au, Zn
Major Ores	galena
Minor Ores	arsenopyrite, gold, pyrite, sphalerite
Gangue	quartz
Host Rock	conglomerate, rhyolite, tuff
Colon Peak Mine	
Deposit Name	
Production	39836 t
Deposit Size	Medium
Major Commodities	Pb, Ag, Au
Minor Commodities	Cu, Zn
Major Ores	cerussite, galena
Minor Ores	proustite
Gangue	barite, quartz
Host Rock	conglomerate, rhyodacite, rhyolite, tuff
Silver Peak Mine	
Deposit Name	
Production	37237 t
Deposit Size	Large
Major Commodities	Pb, Ag, Au
Minor Commodities	Cu, Zn
Major Ores	galena
Minor Ores	arsenopyrite, bornite, cerussite, chalcopyrite, dyscrasite, gold, polybasite, pyrrargyrite, pyrite, silver, sphalerite, tetrahedrite
Gangue	carbonate, quartz
Host Rock	rhyolite, tuff

Wonga Mine	
Deposit Name	
Production	3164 t
Deposit Size	Small
Major Commodities	Pb, Ag
Minor Commodities	Au, Cu, Zn
Major Ores	galena
Minor Ores	arsenopyrite, bornite, chalcocite, chalcopyrite, pyrite, siderite, stromeyerite, tetrahedrite
Gangue	barite, dolomite, quartz
Host Rock	rhyolite, tuff
Wollondilly Mine	
Deposit Name	
Production	34771 t
Deposit Size	Medium
Major Commodities	Pb, Ag
Minor Commodities	Au, Cu, Zn
Major Ores	cerussite, galena
Minor Ores	arsenopyrite, chalcopyrite, gold, polybasite, pyrrargyrite, pyrite, sphalerite, tetrahedrite
Gangue	epidote, quartz, siderite
Host Rock	rhyolite, tuff
New Burrangor Mine	
Deposit Name	
Production	7272 t
Deposit Size	Medium
Major Commodities	Pb, Ag
Minor Commodities	Au, Cu, Zn
Major Ores	galena
Minor Ores	arsenopyrite, jarosite, pyrite, sphalerite
Gangue	quartz, siderite
Host Rock	rhyolite, tuff
Feldsworth Mine	
Deposit Name	
Production	113 t
Deposit Size	Small
Major Commodities	Pb, Ag
Minor Commodities	Au, Cu, Zn
Major Ores	galena, sphalerite
Minor Ores	arsenopyrite, bornite, chalcopyrite, covellite, pyrite, tetrahedrite
Gangue	quartz
Host Rock	rhyodacite
St George Mine	
Deposit Name	
Deposit Size	Occurrence only
Major Commodities	Pb, Ag
Minor Commodities	Au, Cu, Zn
Major Ores	galena
Minor Ores	arsenopyrite, pyrite

Gangue	quartz
Host Rock	rhyolite
Silver King Mine NE	
Deposit Name	
Deposit Size	Small
Major Commodities	Pb, Ag, Au
Minor Commodities	Cu, Zn
Major Ores	galena, gold
Minor Ores	arsenopyrite, pyrite
Gangue	quartz
Host Rock	rhyolite
Litchfield Mine	
Deposit Name	
Production	130 t
Deposit Size	Small
Major Commodities	Pb, Ag
Minor Commodities	Au, Cu, Zn
Major Ores	galena
Minor Ores	arsenopyrite, pyrite
Gangue	quartz
Host Rock	rhyolite
Webbs Mine	
Deposit Name	
Production	60 t
Deposit Size	Occurrence only
Major Commodities	Pb, Ag
Minor Commodities	Cu
Major Ores	galena
Minor Ores	carbonate
Gangue	quartz
Host Rock	tuff

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WOMEN WHO STILL KNOW THEIR PLACE

Barbara Walters did a story on gender roles in Kabul, Afghanistan, several years before the Afghan conflict. She noted that women customarily walked five paces behind their husbands.

She recently returned to Kabul and observed that women still walk behind their husbands. Despite the overthrow of the oppressive Taliban regime, the women now seem to, and are happy to, maintain the old custom.

Ms. Walters approached one of the Afghani women and asked, "Why do you now seem happy with an old custom that you once tried so desperately to change?"

The woman looked Ms. Walters straight in the eyes, and without hesitation said, "Land mines." Moral of the story is (no matter what language you speak or where you go): BEHIND EVERY MAN, THERE'S A SMART WOMAN.

Garnet:- cont. from Feb. issue

] Pyrope


Pyrope (from the Greek *pyrōpós* meaning "fire-eyed") is red in color and chemically a magnesium aluminium [silicate](#) with the formula $Mg_3Al_2(SiO_4)_3$, though the magnesium can be replaced in part by calcium and ferrous iron. The color of pyrope varies from deep red to almost black. Transparent pyropes are used as gemstones.

A variety of pyrope from [Macon County, North Carolina](#) is a violet-red shade and has been called *rhodolite*, from the Greek meaning "a rose." In chemical composition it may be considered as essentially an isomorphous mixture of pyrope and almandine, in the proportion of two parts pyrope to one part almandine. Pyrope has tradenames some of which are [misnomers](#); *Cape ruby*, *Arizona ruby*, *California ruby*, *Rocky Mountain ruby*, and *Bohemian garnet* from the [Czech Republic](#). Another intriguing find is the blue color-changing garnets from Madagascar, a pyrope spessartine mix. The color of these [blue](#) garnets is not like sapphire blue in subdued daylight but more reminiscent of the grayish blues and greenish blues sometimes seen in [spinel](#). However, in white [LED](#) light the color is equal to the best cornflower blue [sapphire](#), or D block [tanzanite](#); this is due to the blue garnet's ability to absorb the yellow component of the emitted light.

Pyrope is an indicator mineral for high-pressure rocks. The garnets from [mantle](#) derived rocks, [peridotites](#) and [eclogites](#), commonly contain a pyrope variety.

[[edit](#)] Spessartine



 Spessartine (the reddish mineral)

Spessartine or spessartite is manganese aluminium garnet, $Mn_3Al_2(SiO_4)_3$. Its name is derived from


[Spessart](#) in [Bavaria](#). It occurs most often in [granite pegmatite](#) and allied rock types and in certain low grade metamorphic [phyllites](#). Spessartine of an [orange](#)-yellow is found in Madagascar. Violet-red spessartines are found in [rhyolites](#) in [Colorado](#) and [Maine](#).

[[edit](#)] Ugrandite group - calcium in X site

- [Andradite](#): $Ca_3Fe_2(SiO_4)_3$
- [Grossular](#): $Ca_3Al_2(SiO_4)_3$
- [Uvarovite](#): $Ca_3Cr_2(SiO_4)_3$

[[edit](#)] Andradite




 Andradite (the black mineral)

Andradite is a calcium-iron garnet, $Ca_3Fe_2(SiO_4)_3$, is of variable composition and may be red, yellow, brown, green or black. The recognized varieties are topazolite (yellow or green), [demantoid](#) (green) and [melanite](#) (black). Andradite is found both in deep-seated [igneous rocks](#) like [syenite](#) as well as serpentines, schists, and crystalline limestone. Demantoid has been called the "[emerald](#) of the [Urals](#)" from its occurrence there, and is one of the most prized of garnet varieties. Topazolite is a golden yellow variety and melanite is a black variety.

[[edit](#)] Grossular



 Grossular on display at the US [National Museum of Natural History](#). The green gem at right is a type of grossular known as tsavorite.

Grossular is a calcium-aluminium garnet with the formula $\text{Ca}_3\text{Al}_2(\text{SiO}_4)_3$, though the calcium may in part be replaced by ferrous iron and the aluminium by ferric iron. The name grossular is derived from the [botanical](#) name for the [gooseberry](#), *grossularia*, in reference to the green garnet of this composition that is found in [Siberia](#). Other shades include cinnamon brown (cinnamon stone variety), red, and yellow. Because of its inferior hardness to [zircon](#), which the yellow crystals resemble, they have also been called *hessonite* from the [Greek](#) meaning inferior. Grossular is found in contact metamorphosed [limestones](#) with [vesuvianite](#), [diopside](#), [wollastonite](#) and [wernerite](#).

Grossular garnet from Kenya and Tanzania has been called tsavorite. Tsavorite was first described in the 1960s in the Tsavo area of Kenya, from which the gem takes its name. ^{[[citation needed](#)]}

[\[edit\]](#) Uvarovite



Uvarovite

Uvarovite is a calcium chromium garnet with the formula $\text{Ca}_3\text{Cr}_2(\text{SiO}_4)_3$. This is a rather rare garnet, bright green in color, usually found as small crystals associated with [chromite](#) in peridotite, [serpentinite](#), and kimberlites. It is found in crystalline [marbles](#) and schists in the [Ural mountains](#) of Russia and [Outokumpu, Finland](#).

[\[edit\]](#) Less common species

- Calcium in *X* site
 - [Goldmanite](#): $\text{Ca}_3\text{V}_2(\text{SiO}_4)_3$
 - Kimzeyite: $\text{Ca}_3(\text{Zr}, \text{Ti})_2[(\text{Si}, \text{Al}, \text{Fe}^{3+})\text{O}_4]_3$
 - Morimotoite: $\text{Ca}_3\text{Ti}^{4+}\text{Fe}^{2+}(\text{SiO}_4)_3$
 - Schorlomite: $\text{Ca}_3(\text{Ti}^{4+}, \text{Fe}^{3+})_2[(\text{Si}, \text{Ti})\text{O}_4]_3$
- Hydroxide bearing - calcium in *X* site

- [Hydrogrossular](#): $\text{Ca}_3\text{Al}_2(\text{SiO}_4)_{3-x}(\text{OH})_{4x}$
 - Hibschite: $\text{Ca}_3\text{Al}_2(\text{SiO}_4)_{3-x}(\text{OH})_{4x}$ (where *x* is between 0.2 and 1.5)
 - Katoite: $\text{Ca}_3\text{Al}_2(\text{SiO}_4)_{3-x}(\text{OH})_{4x}$ (where *x* is greater than 1.5)
- Magnesium or manganese in *X* site
 - [Knorringite](#): $\text{Mg}_3\text{Cr}_2(\text{SiO}_4)_3$
 - [Majorite](#): $\text{Mg}_3(\text{Fe}, \text{Al}, \text{Si})_2(\text{SiO}_4)_3$
 - [Calderite](#): $\text{Mn}_3\text{Fe}^{3+}_2(\text{SiO}_4)_3$

[\[edit\]](#) Knorringite

Knorringite is a magnesium chromium garnet species with the formula $\text{Mg}_3\text{Cr}_2(\text{SiO}_4)_3$. Pure [endmember](#) knorringite never occurs in nature. Knorringite is only formed under high pressure and is often found in [kimberlites](#). It is used as an indicator mineral in the search for [diamonds](#).

[\[edit\]](#) Synthetic garnets

The crystallographic structure of garnets has been expanded from the prototype to include chemicals with the general formula $A_3B_2(C\text{O}_4)_3$. Besides silicon, a large number of elements have been put on the *C* site, including [Ge](#), [Ga](#), [Al](#), [V](#) and [Fe](#).^{[[31](#)]}

[Yttrium aluminium garnet](#) (YAG), $\text{Y}_3\text{Al}_2(\text{AlO}_4)_3$, is used for [synthetic](#) gemstones. Due to its fairly high refractive index, YAG was used as a diamond simulant in the 1970s until the methods of producing the more advanced simulant [cubic zirconia](#) in commercial quantities were developed. When doped with [neodymium](#) (Nd^{3+}) these YAl-garnets are useful as the lasing medium in [lasers](#).


Interesting magnetic properties arise when the appropriate elements are used. In [yttrium iron garnet](#) (YIG), $\text{Y}_3\text{Fe}_2(\text{FeO}_4)_3$, the five iron(III) ions occupy two [octahedral](#) and three [tetrahedral](#) sites, with the yttrium(III) ions coordinated by eight oxygen ions in an irregular cube. The iron ions in the two coordination sites exhibit different [spins](#), resulting in [magnetic](#) behaviour. YIG is a [ferrimagnetic](#) material having a [Curie temperature](#) of 550 [K](#).

Another example is [gadolinium gallium garnet](#), $\text{Gd}_3\text{Ga}_2(\text{GaO}_4)_3$ which is synthesized for use as a substrate for liquid phase epitaxy of magnetic

garnet films for [bubble memory](#) and [magneto-optical](#) applications.

[\[edit\]](#) Geological importance of garnet



 Garnet var. Spessartine, Putian City, Putian Prefecture, Fujian Province, China

The Garnet group is a key mineral in interpreting the genesis of many igneous and metamorphic rocks via [geothermobarometry](#). [Diffusion](#) of elements is relatively slow in garnet compared to rates in many other minerals, and garnets are also relatively resistant to [alteration](#). Hence, individual garnets commonly preserve compositional zonation that are used to interpret the temperature-time histories of the rocks in which they grew. Garnet grains that lack compositional zonation commonly are interpreted as having been homogenized by diffusion, and the inferred homogenization also has implications for the temperature-time history of the host rock.


Garnets are also useful in defining [metamorphic facies](#) of rocks. For instance, eclogite can be defined as a rock of [basalt](#) composition, but mainly consisting of garnet and [omphacite](#). Pyrope-rich garnet is restricted to relatively high-pressure metamorphic rocks, such as those in the lower [crust](#) and in the Earth's mantle. Peridotite may contain [plagioclase](#), or aluminium-rich spinel, or pyrope-rich garnet, and the presence of each of the three minerals defines a pressure-temperature range in which the mineral could equilibrate with [olivine](#) plus [pyroxene](#): the three are listed in order of increasing pressure for stability of the peridotite mineral assemblage. Hence, garnet peridotite must have been formed at great depth in the earth. [Xenoliths](#) of garnet

peridotite have been carried up from depths of 100 km and greater by kimberlite, and garnets from such disaggregated xenoliths are used as a kimberlite indicator minerals in diamond prospecting. At depths of about 300 to 400 km and greater, a pyroxene component is dissolved in garnet, by the substitution of (Mg,Fe) plus Si for 2Al in the octahedral (Y) site in the garnet structure, creating unusually silica-rich garnets that have solid solution towards majorite. Such silica-rich garnets have been identified as inclusions within diamonds.


The largest documented garnet single crystal was an isometric block measuring ~2.3 m and weighing ~37.5 tons.^[4] The news on larger garnet crystals found near Alice Springs, Northern Territory, Australia have not been confirmed.

[\[edit\]](#) Uses of garnets



 8th (?) century [Anglo-Saxon](#) sword hilt fitting, gold with gemstone inlay of [garnet cloisonné](#). From the [Staffordshire Hoard](#), found in 2009, and not fully cleaned.



 Pendant in uvarovite, a rare bright-green garnet.

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Northern Districts Lapidary Club acknowledges the support of Hornsby Council.

~NORTHERN DISTRICTS LAPIDARY CLUB INC.
holds the majority of its monthly meetings in the Beecroft Community Centre, Beecroft Road, Beecroft

at 8pm on the 2nd Tuesday of each month except January. Variation in date and time of meetings are published in Lapis, and on the club website. The Entrance to the clubrooms is on the railway side of the building. ~

Membership Fees: effective from 01/07/2010

Entrance/ Annual Subs

Full Member aged 18 or more yrs	\$25	\$20
Junior member aged 10 to 17 yrs incl.	\$10	\$10
Family Concession	\$40	As Above
Junior Associate member aged less than 10 yrs		No charge

In case of a person being admitted to membership on or after January 1st in any Club financial year, the subscription fee that year shall be half the amount.

**THE CLUB FINANCIAL YEAR IS FROM
JULY 1ST – JUNE 30TH**

WEBMASTER – Alex Maitland

Mail to: ammaitland@optusnet.com.au

CURRENT CLASSES & ACTIVITIES HELD IN CLUB ROOMS

Monday 7.30pm CABOCHON CUTTING
Instructors Glenn Brown 9617 0446
7.30pm SILVER JEWELLERY
Instructor Johan ten Hoedt 9484 6521

Tuesday 9.00am SILVER JEWELLERY workshop
Contact Ed Bentley 94985748

Wednesday 10.00am SENIORS ALL DAY Workshop
Contact George Hunter 9871 2126
7.30pm SILVER JEWELLERY
Instructor Brian Burns 9878 4073

Thursday 7.30pm CABOCHON CUTTING
Instructor John Weatherburn 9871 3302
7.30pm FACETING CLASS
Instructor Norm Fitzpatrick 9876 1815

Friday CASUAL COMPETITION CUTTING
No teacher – self help - enquiries please
contact John Weatherburn – 9871 3302

Saturday 1.00pm Family CLASS
Instructor Paul Khoo
with Corin Sadler 9869 7775

CLASS FEES can be paid to your class teacher, also annual membership fees when due and any purchases from the shop.

**CLASS, CASUAL & WORKSHOPS FEES –
EFFECTIVE FROM 01/01/09**

First Class – per term (School Term)	\$30
Any Additional Class – per term (School Term)	\$25
Casual Use of Machinery – per attendance	\$5
Workshops – 2 day weekend	\$25
1 day (plus materials)	\$15

Management Committee meets the last Tuesday of each month except December, at 7.30 pm, in the clubrooms.

Workshop Weekends: Subject, Date, and requirements will be printed in this newsletter as they occur.

There are waiting lists for some classes

DATES OF INTEREST

2011 – GEMBOREE – NSW – Bathurst –
April 22-25

Lapis now available by  or  !!

Members, if you would prefer to receive your LAPIS by email rather than by snail mail please send you email address to Colin Hazell. My email is col.hazell@Bigpond.com.au

DISCLAIMER: Opinions expressed in LAPIS are those of the original Authors and do not necessarily reflect those of the Editor, Committee or Members of the Northern Districts Lapidary Club Inc. Persons acting on any opinions, advice or facts published in the Issue do so at their own risk.

From the Editor's Desk

Please send me contributions for LAPIS. I am interested in articles that would be enjoyed by one and all

Ph. (02) 9888 7650 or Mobile 0410 659 729 Email col.hazell@bigpond.com.au

MEETING DATES for 2011

All meetings are held in the Clubrooms at Beecroft

Tuesday 8th March, 8.00pm

Tuesday 12th April, 8.00pm

Saturday 14th May, 2pm

Saturday 18th May, 2pm

Saturday July 16th, 2pm

AGM Saturday 13th August, 2pm

Tuesday 13th September, 8.00pm

Tuesday 13th September, 8.00pm

Tuesday 11th October, 8.00pm

Tuesday 8th November, 8.00pm

Saturday 10th December, 2pm, Christmas Party

Date	Day	Field Trip (Open to members only)	Meeting Details e-mailed on registration.
Yerrandarie (300km – 4 hrs)			<Yerrandarie Homestead & Cabins>
10/06/2011	Fri	Rocky Winter Christmas Bring: Clothes for 4 seasons Equipment: whatever fits into boot and you can carry Temp may fall below zero.	Bushwalk to site's Yerrandarie Village NO Caravan (no electricity) pit toilet Mineral: a lot
11/06/2011	Sat		
12/06/2011	Sun		
13/06/2011	Mon		

June Trip to Yerrandarie

Saturday 11/6/2011 to 12/6/2011 is obligatory; Friday night and Sunday night are optional

Those members attending must pre-book by paying 50% Deposit on registration.

Four styles of Accomodation are available

POST OFFICE

6 rooms / 31 beds

\$44 per person per night

Nights / Please indicate couple to share room	Sat only	Fri/Sat	Sat/Sun	Fri/Sat /Sun
Cost	\$44	\$88	\$88	\$132
Name/e-mail				
Name/e-mail				
Name/e-mail				
Name/e-mail				
Name/e-mail				
Sub Total				
TOTAL				

Camping (NO CARAVANS) Recommend to have hiking tent inside dome tent. Lash down all tie ropes.

\$12 per person per night

Nights / Please indicate couple to share room	Sat only	Fri/Sat	Sat/Sun	Fri/Sat /Sun
Cost	\$12	\$24	\$24	\$36
Name/e-mail				
Name/e-mail				
Name/e-mail				
Name/e-mail				
Name/e-mail				
Name/e-mail				
Name/e-mail				
Name/e-mail				
Sub Total				
TOTAL				

Route: Beecroft – Katoomba – Hartley – Oberon – Shooters Hill – (Dirt Road) – Yerrandarie

Route: M4 – Great Western Highway – Jenolan Caves Road – Duckmaloi Rd. – Titania Rd – Edith Rd – (Butter Factory Lane – Shooters Hill Rd) – Mt Werong Road

Contact: Edward Zbik, Field trips Officer, phone (02) 9638 6586 e-mail etzed@optusnet.com.au

Deposit: Send cheque to Northern Districts Lapidary Club PO Box 59 Beecroft NSW 2119

Or e-mail Ed for details about Direct Debit into the Clubs Account. Not account posted in last LAPIS.