



LAPIS

www.ndlapidary.org.au

"SHARE YOUR KNOWLEDGE"

VOLUME FORTY TWO NUMBER THREE NOVEMBER 2007

CLUB NEWS

The next General meeting will be on Tuesday Evening 13th November 2007 at 8.00pm in the Clubrooms at Becroft - all members welcome.

Following the General meeting we will have Colin Manton, Regional Director and Cathy Moore, Publicity Officer from the *Rural Fire Service*. They will be discussing the following topics:

- Overview of the Service
- Handy hints for looking after your home
- Question & Answer session if required

New Members

We would like to welcome our newest members –

- Paul Khoo – Hornsby
- David Robertson – Epping
- Lily Grimsdell – Lane Cove Nth
- Elizabeth Grimsdell – Castle Hill
- Phil Manton - Turramurra

We wish them many long hours of enjoyment cutting gemstones and enjoying the other aspects of our Club.

PRESIDENT'S REPORT

After completing a bit more paperwork we are pleased to report that just over \$2200 has now been credited to our Club bank account from the Volunteer Small Equipment Grants scheme (Commonwealth Government). So now we will be able to go shopping for the new projector and computer system to help with our education program, slide presentations, etc.

Don't forget to prepare your 'most interesting' entries for the **WOW Award** competition to be

held and judged at the Christmas Party. If you don't know about this competition then see the Notices in the Clubrooms or ask your teacher.

We also would like to thank Glenn Brown for becoming our new Monday Night Cabochon teacher.

Brian Burns

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From the Committee

The Librarian is still searching for the following issues of LAPIS missing from the Club's archive (listed below). If there are any members who are collectors of LAPIS and in possession of any of the following issues could they please contact Frances Sun (Librarian) on 9449 4434 to arrange photo-copies of these issues to be made for the Club's archives: **June 1967, November 1968, March 1992, June 1992, November 1992, April 1994, October 1994, July 1996, August 1998**".

Two new books have been added to the Library, they are: **Tyrannosaurus "SUE"** by Steve Fiffer. (Librarians' review: A very good read about the intrigues in the fossil collection of a T. Rex).

The complete Encyclopedia of Fossils (various authors)

Budget

As part of our 2007-08 budget discussions, the Committee has recommended the expenditure of up to \$4500 to cover two major capital items. The first will involve some modification to the cutting room layout to remove the older disc sanders on the far wall and replacing them with more of the faster Nova wheel combinations. This will remove some of the bottleneck that can occur with the larger classes. The other proposed purchase is a

new TV/DVD combination to replace our existing set-up which is not able to play different types of DVDs. More details at the next General Meeting.

Gem & Lapidary Council SNIPPETS

Council is investigating the feasibility of obtaining:

1. Insurance cover for club members over the age of 80 years old. Under current arrangements these members are not covered.
2. Alternative sites to the current one at Mudgee, for future NSW GEMKHANAS.

NDLC FIELD TRIPS CALENDAR



- **GOULBURN - SOUTHERN HIGHLANDS - Sat 26th, Sun 27th and Mon 28th January 2008.** Details for this Field Trip with the Goulburn Gem Society will be announced at a later date.
- **GEMBOREE 2008 – Murray Bridge SA**

The next GEMBOREE which is being held at Murray Bridge in South Australia is closer than you think! Christmas is nearly on us already and with Easter 2008 in March, there is really not a lot of time between now and then.

For those club members wishing to attend the GEMBOREE and camp on site –

1. Please complete the GEMBOREE 2008 ON SITE Registration Form and mail to GEMBOREE SA, PO Box 140, St Agnes SA 5097. Please note that registration covers the period from noon Wednesday 19th March to noon Tuesday 25th March 2008.
2. Please highlight the fact that you are from the Northern Districts Lapidary Club in Sydney (NOT just NDLC as there are other clubs with the same

initials!) to ensure that we are all sited together as a group.

3. Please add your name to the list on the Club notice Board so that we have an idea of numbers that will be attending the GEMBOREE, and who may be interested in joining any Club travel / activities before and after the GEMBOREE itself. This could be a total of 5 to 6 weeks duration. Details are still being finalised (thought of?).

Tony Try
Field Trips Officer
Ph. [02] 43936168 or Mobile: 0417 676 435

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CHRISTMAS PARTY



When: 8 December 2008
Time: 12 Noon
Where: Jean & Bert Deane's Place
Address: 43 Edwards Road, Wahroonga.
What to Bring: Please bring your own table, chairs, drinks (glasses) and nibbles.
The Club: will provide lunch of roast chicken pieces, cold cuts, salad, rolls, cakes tea and coffee.
Lunch: will be served at approx. 1pm
Tombola: Yes - so bring along all your treasures.
Weather: Has been ordered !!

And there is more: In addition to the normal activities at the Christmas Party it is proposed to hold an **auktion for surplus equipment** eg Trim saws, carbide cutting equipment and a faceting machine. These items will be displayed in the Clubrooms for inspection prior to the party. They will be auctioned and sold in "as is condition". The items will also be on display at the Christmas Party and it is expected that successful bidders will take possession of the items at that time.

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XMAS HAMPERS

Donations are required for the Christmas hampers. The hamper containers are in the Club rooms awaiting your kind donations.

Please help make them worth winning at the Christmas Party



Snippet from Mudgee

A member from our Club has been awarded the Gem & Lapidary Council of N.S.W. Author's Award for 2007. Congratulations Tony Try

WAX CARVING COURSE

Over the last three months Mark Young has run what has proved to be a very successful wax carving course. All attendees were delighted with their result achieved despite their protestations about lack of talent. Under Mark's professional guidance all were surprised at their individual creativity. The resulting pieces will be cast at our forthcoming workshops. Mark is prepared to hold further course/s in 2008 and I would be pleased to receive expressions of interest from those members who would like to attend.

Jean Macleay

CASTING WEEKEND

Final reminder:

Last casting weekend scheduled for this year, which is on **24/25th November**. This will give you the opportunity to cast your carved items. These are limited to 12 persons so put your name on the list as soon as possible.

Items necessary for casting weekends are available on our web site. Ring me if you have any queries on 43530240 or 0414564174.

Jean Macleay.

Vale Geoffrey Burgess

Not many of our currently active members will remember Geoffrey Burgess. Geoffrey and his late wife Irene joined our club in 1967 and participated in all of our activities over many years. After Irene's death Geoffrey retired to the Central Coast but has retained an interest through Lapis. He has attended all of our 'Senior's get-

togethers' until the last one when he took sick on the morning of the function. He did not recover and we have recently been advised that he passed away early October. He had reached the wonderful age of 98 and was active and well to the last.

Jean Macleay

Chef's Corner



"On the Road" Cornflake Biscuits

(Thanks to Jean Macleay)

Ingredients

185 grams (6ozs) butter
½ cup of walnuts
¾ cup dates or mixed fruit
½ cup of sugar
1 cup S R Flour
1 egg

Method

Cream butter and sugar
Add beaten egg, fruit and nuts then flour
Take teaspoonsful at a time and roll in cornflakes
Bake in moderately hot oven 200°C for 15 minutes

THANK YOU to all concerned.

As you will now all know, my late husband Michael and I took part in a recent Club Field Trip to Emmaville. Michael had severe chest pains on the Saturday night and at Joan and Tony William's insistence we visited Emmaville Hospital and then Glen Innes Hospital from where Michael was taken by air-ambulance to St Vincent's Hospital in Sydney. He had a triple bypass and was initially progressing well. However, he took a turn for the worse and could not be revived.

Having said that, I would like to convey my very special thanks to the Club members that were with Michael and I at Emmaville. The support we received from those people was wonderful, and even now fills me with a bubbly warmth.

I believe that it is this type of friendship and support, when it is needed, that shows the real camaraderie that exists within our Club. My heartfelt thanks go to all concerned. The people involved will know to whom I refer.

The NRMA transported our caravan and allowed me overnight accommodation on the way home. As I had my dog Kahla with me, Tony and Joan accompanied me on the trip home and looked after her at night.

I look forward to again joining in Club activities in the New Year.

Marie Johnson

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Enamelling workshop

A successful afternoon on Oct. 20th was spent with our junior members with Barbara Try sharing her knowledge.

Some interesting and outstanding designs were produced in a short time, our juniors are very enthusiastic and keen to absorb all aspects of lapidary.

Kevin Davey



Photo of some items created during the afternoon.

Field Trip to Emmaville Gemfest & Hogarth Range

Part Two

Monday saw most of our contingent participate in a very eventful Field Trip, which was to find Topaz and Tourmaline. The convoy of approximately fifty vehicles was led out on a good but very dusty dirt road, which made visibility non-existent, and the car in front very difficult to see. As there was no wind the dust “hung” over the road, which meant that leaving a good distance between vehicles was imperative. For the first time in a number of years it was great to hear a

few bars of the Leyland Brother’s theme song, filter its way through the dust, via the UHF radio. After bunching up at the gate that let us onto the private property, we were led through paddocks until we came to a halt in order to assist a vehicle, which had slid into some deep, wet ruts on an uphill incline. After four to five attempts with the help of many hands he slid through the problem area, and we moved on to where we were to dig for Topaz. As we stopped, a motorbike rider arrived looking to see if anyone had a tow-rope, as another vehicle had broken through the surface crust and sunk in the mud. This time it was Norm and Dorothy’s turn to come to a halt. After several attempts and a goodly number of rocks and branches being thrown into the quagmire, which proved to be completely ineffective as they were simply swallowed up, Norm pushed another track through the bush to bypass the area and allow the remaining vehicles through. It should be recorded here that although Norm claims no knowledge of being bogged, because there were no photographs taken and therefore no proof, I can assure you that there are a number of witnesses to verify that his faithful old Cruiser DID come to a muddy halt !!

After a relatively fruitless few hours of digging we formed up to go on to another site to fossick for Tourmaline. As we were leaving I was just a “little” naughty and suggested [over the radio] that Norm should drive in front of me so I could pull him out, if he got stuck again. This was **not** a good move !!

We had not been easing our way back through the paddocks for very long when we came to another very wet and churned up section. I hung back to watch Norm negotiate it before moving into it, myself. We had not gone far when the ground simply swallowed the whole car. I had broken through the “crust” and sunk to the running boards in a sloppy and seemingly, bottomless black ooze. Joan and Tony Williams – our passengers on the day – managed to get out of the back seats, while Barbara had to make her way from the front passenger seat, into the driver’s seat and then out, as she could not open her door for fear of mud entering the vehicle.

It was Norm’s turn for “revenge” as he attached a long tow-rope in an attempt to pull me out, forwards. This unfortunately was unsuccessful, as he could not get sufficient traction, and ran the

risk of again burying his own vehicle. Finally, another vehicle attached a rope and winched me out backwards. Unfortunately, in this instance there were “hundreds” of cameras recording my plight, and there is ample proof that I came to a very sticky halt. However, my sincere thanks go to the unknown Good Samaritan with the winch, as there is no way I could have extracted myself without his assistance.



“Ever get that sinking feeling” - The Try’s vehicle bogged

After making another track around that very messy area, we moved on to the site for the Tourmaline. This involved negotiating a very narrow bush track to an old mine shaft where specimens of massive black tourmaline were relatively plentiful. It was here that Lyn Bridson found what appeared to be a very nice tin crystal.

Bedraggled and very dirty, we made a slow trip back to our vans, past paddocks containing numerous kangaroos and different varieties of brilliantly flowering wattle. [dust prevented us from seeing any of this on the outward journey] After another “just warm” shower - washing facilities could not cope with the numbers at the Gemfest –we adjourned to the local Club Hotel for a drink and evening meal. This was a wise move as the weather had changed and was now very overcast, with light showers of rain.

It should be noted here that Marilyn Behrens of the Parramatta-Holroyd Club claims responsibility for the great weather to this point as she found a four leaf clover and a horse shoe soon after arriving at Emmaville. Thank you Marilyn!!

The next morning was cold with a bitter wind. Our short period of Spring had gone and we were definitely back to a last ditch burst of Winter.

While the majority of the Gemfest campers had now dispersed, we were fortunate to have negotiated access to a private sapphire mining lease on Reddestone Creek. As a group we spent an enjoyable day in the creek where Norm picked up the largest sapphire of the day - a clear blue/green stone weighing just over 11 carats. As clouds gathered and rain threatened, we made our way back to camp where we had beautiful HOT showers! Our first for a few days. The weather had by this time turned bitterly cold and forecasts for the next few days promised rain. A phone call to relatives at Casino confirmed the bad weather forecasts so the visit to Hogarths’s Range was reluctantly cancelled. This Field Trip was therefore ended a few days earlier than intended, and members headed for home via a variety of routes.

Barbara and I continued on to Casino and Lismore to meet with relatives and friends. It was also imperative that we met with John and Gina Weatherburn to advise them of the cancellation of the Hogarth Range segment of the Field Trip, as they were to meet us for a day trip, out on the fields. As we arrived at Melanganee the heavens opened up and we continued through Casino and on to Lismore in heavy rain. I was never so pleased to see rain on a holiday as I was this time, as it vindicated the decision not to go on to Hogarth Range. In these conditions fossicking would have been impossible, and camping, unpleasant.

My thanks go to those Club members who made this Field Trip a memorable one. I know that there are many stories to tell as a result of it. By the way, who forgot to lock the fridge door, with the inevitable result, as they were leaving Emmaville on Wednesday morning ?

Tony Try
FTO

HISTORY OF THE METRIC SYSTEM

By J. Patterson

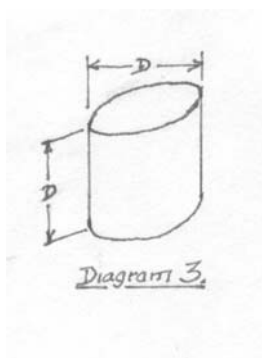
Part Three

MASS

The “natural” material chosen to be the basis for this standard was distilled water. An attempt was made to make the Standard Kilogramme

equivalent in mass to one cubic decimetre of pure water at a temperature close to where the water density is a maximum (4° C). This would then make the density of water to be one gramme per cubic centimetre at 4° C and thus could be used as a standard of density as well.

The material chosen for the artifact was an alloy of Platinum-Iridium, and was made in the form of a cylinder with flat ends. The edges were slightly rounded to prevent chipping and the cylinder height was made equal to the diameter to provide the smallest surface area (to minimise surface contamination). [See Diagram 3; D is approximately equal to 3.75 centimetres.]



Later reverse measurements have indicated that this original manufacture of the standard was in error by twenty-eight parts per million, and thus the density of water at 4° C is slightly less than 1 gramme per cubic centimetre. Not too bad an accuracy for a measurement done at that period of time.

The original Kilogram is still in use, and is known as the Kilogramme des Archives. It is housed under a twin bell jar inside a safe at the B.I.P.M. Laboratory in Paris. It is only taken out rarely to calibrate six working masses, which are used to check other standards from around the world. Accuracy of the calibrations approaches 1 part in one thousand million.

Australia has copy No 44. I worked in the Mass Section of the National Measurement Laboratory of the C.S.I.R.O for 43 years. I was required to use the Kilogram copy for the first time, on the then best balance in Australia, to calibrate some internal stainless steel standards. One of the requirements when using this particular balance, is that the masses have to be placed exactly on the centre of each pan to prevent “pan swing” when the balance is released. This is accomplished by

lifting and lowering the weight vertically with special tongs, so that the bottom of the mass does not scrape across the pan surface and cause scratches. At the end of the exercise, I examined the bottom of the standard kilogram and was horrified to see many scratches. I then contacted the previous user of the balance and he assured me that the scratches had been put there much earlier, and I was not at fault.

The Kilogramme des Archives is now the only standard that is an artifact of solid material, but work is being done at the moment to redefine the kilogramme as the number of atoms in a sphere of pure silicon equivalent in mass to this artifact.

TIME

The time of the mean solar day was the first standard of time and was maintained by astronomers and clockmakers of that period. The second was then defined as 1/ 84,000 of a mean solar day. This standard was quite stable and accurate enough for most uses during that period of history. However, with the advance of electronic frequency measurements, more accuracy was required.

In 1956, the second was redefined as a fraction of the tropical year of 1900, but this definition relied on quartz clocks to reproduce the long-gone year. Quartz clocks worked on the frequency output from a quartz block of certain dimensions, which was excited by a voltage. When under temperature control these clocks were very stable.

In 1967 the definition was changed to the duration of 9,192,631,700 periods of a specified transition of Cs-133 atoms, and is maintained by caesium-beam clocks. Accuracy is better than 1 part in ten thousand billion.

GENERAL

The new Metric System was introduced to the rest of Europe by Napoleon and his armies, and was adopted elsewhere for general use, particularly in scientific work. Popular support in France was slow to develop, and it was not till 1840 that the new system was officially accepted. In 1864, Britain authorised the use of the metric System in trade, but did not displace its old system. It is interesting to note that in 1790, Thomas Jefferson proposed a decimal system to replace the then

British system to the U.S.A. Congress and was defeated by ONE vote. What a shame!

At the present time, there are only three countries in the world that do not officially use the Metric System and they are U.S.A, Liberia, and Myanmar.

A scientific congress, held at the same time as the Great Exhibition of Paris 1867, established a Committee of Weights, Measures and Money. This committee agreed to make copies of the Metre and Kilogramme of the Archives using an alloy of Platinum and Iridium, to distribute to other nations. At a formal inter-governmental meeting in 1875, the Metric Treaty was signed and the International Committee of Weights and Measures (C.I.P.M.) was established.

This body was responsible for establishing an independent laboratory of international standing, located in France, to ensure the equivalence of all International Standards and to improve methods of measurement. This laboratory is located in Sevres, near Paris, and is known as the Bureau Internationale de Poids et Mesures (B.I.P.M.).

Thus C.I.P.M. has the overall responsibility for maintaining the Metric System and the major countries each have some form of standards laboratory. Australia's laboratory was known as the National Measurement Laboratory at the time of my retirement and was funded by the Government through the auspices of the Commonwealth Scientific and Industrial Research Organisation.

Naturally, this Laboratory cannot be responsible for the calibration of every single instrument used in commerce and industry and the calibration of each of these instruments can be traced through the States Weights and Measures Departments or through the National Association of Testing Authorities. The standards used by these two bodies can only be verified by the newly named National Measurement Institute.

References:

P.E. Ciddor, Personal communications, 1993.
Metric System and its History, www.france-property-and-information.com-metric-system-and-history.htm, 2007.

GEMKHANA 2007 – MUDGEE N.S.W.. Sat 29th September – Monday 1st October, 2007.

Barbara and I decided to leave a couple of days early in order to assist with the set-up of the GEMKHANA on the Thursday and Friday as there were only 3-4 people available to do this on the previous occasion. We left home in fine warm weather and made our way up through Branxton to the Golden Highway and the Upper Hunter. The grape vines were green with fresh new leaves and there were large fields of very yellow canola interspersed with patches of purple “Patterson’s Curse”, which made for a very pretty drive. However, while the large horse studs usually have beautiful looking animals grazing in paddocks beside the road, this time the only horses seen were in the distant paddocks – possibly as a precaution for the equine flu epidemic.

While we saw the usual number of kangaroos and wallabies as road kill, we unfortunately also noticed an unusually large number of dead wombats. As we approached Mudgee it was also very obvious that the vineyards there were 3-4 weeks behind their counterparts in the Hunter, as there was very little greenery showing.

We arrived at the caravan park to find Norm and Dorothy Savage already there, so we set up camp beside them.

After a cool night and a light shower of rain, we assisted with the setting up of the tables, drapes and showcases for the GEMKHANA. In all there were about 14 people under the able guidance of John and Marilyn Behrens, which made light work of it, and a lot of fun.

On the Friday morning we assisted with the final touches to the set-up and were joined by John and Gina Weatherburn and Bert and Jean Deane, who arrived in the afternoon. It was another warm day with gusty winds and at the caravan park a pair of nesting magpies, in a tree near our camp, kept us all on our toes and with eyes to the sky, as they dive-bombed the unwary. *[They seemed to pay particular attention to people with dark hair, so those of us with the “touch” of grey, got off relatively lightly !]* We all had fish and chips for tea in the camp kitchen and were “entertained” by a young couple using the BBQ to cook their

evening meal. During the process, they used a whole bottle of cooking oil, which created large eruptions of flames as the liquid oil hit the gas flames. I think they could safely enter the “Novice” category in BBQ cooking !!

Saturday was a lazy morning, as we waited for the GEMKHANA to officially open at 12 Noon. It was a good opportunity to visit the Mudjee Bakery for coffee, cakes and éclairs before finally making our way to the GEMKHANA. It was during the evening Happy Hour that Bert and Jean announced that they were celebrating their 51st Wedding Anniversary. Congratulation Bert and Jean !! Stella Carroll and Virginia Banneck and family also joined us for the evening meal and over-nighted in the park before heading to Lightning Ridge and other places of interest. Saturday night was also our coldest night with temperatures as low as 3 degrees Centigrade in the caravan.

Over the next couple of days we did the rounds of the Tailgaters and Dealers, looking for bargains and things “different”. It was good to see Fred and Phyllis Sims once again tailgating gold sluice boxes.

It was also great that a total of fifteen Club members made the effort to visit the GEMKHANA. Those fifteen Club members brought along another eight friends and relatives making a grand total of twenty-three people actively supporting this event. Well done !!

On Monday afternoon we assisted with the dismantling of the exhibition and cleaning up of the halls and facilities. Again it was great to see a good number of people assisting in this work.

We said goodbye to friends old and new, and now look forward to meeting them all again at the GEMBOREE at Murray Bridge in South Australia, during Easter 2008.

Tony Try
FTO

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CABOCHONS

Cab cutters spend a lot of their time at the Club working the back of their cabs on glass.

It is normal to put sheets of newspaper under the glass to catch the slurry. Try to select a newspaper

with something interesting to read (even if it is way out of date).

As an alternative why not work the stone when you are at home. You can watch TV or read a book at the same time.

The Club has, available to members, small bags of grit (220, 400, 600, & 1200) and pieces of glass. The cost is minimal.

Why not get some and try it.



Funnies

Old Friends

Two elderly ladies had been friends for many decades. Over the years, they had shared all kinds of activities and adventures. Lately their activities had been limited to meeting a few times a week to play cards. One day, they were playing cards when one looked at the other and said, “now don’t get mad at me. I know we’ve been friends for a long time, but I can’t think of your name! I’ve thought and thought, but I can’t remember it. Please tell me what your name is.”

Her friend glared at her. For at least three minutes she just stared and glared at her. Finally she said, “how soon do you need to know?”



Tish, boom!

Hear about the guy whose whole left side was cut off? He’s all right now.

Brain Teasers



Bookworm

Two books, Volume 1 and 2, stand side by side in order from left to right on a bookshelf. Not including bindings, each book is one inch thick; the bindings an eighth of an inch thick. Starting from page one, Volume 1 a hungry bookworm eats its way to the last page of Volume 2. How many inches did he consume?

(Forget metric)

Answer – Next edition



