

# Illawarra Lapidary Club Inc.

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#### HELLO EVERYONE!

# Presidents Note

I hope that all is well with our membership – I have yet to hear any bad news and I hope it stays that way. But life is boring and sitting down faceting is sometimes not enough. There is a lot of gossip out there and you probably have had enough of it as I have.

For something a bit more intellectual, rather than listening to Covid19 stories, I looked up the data on Australia's answer to the Spanish Flu (1919) – the last pandemic. We were prepared and knew that it was coming. In NSW it was law that you had to wear a mask outside your house and social distancing was in place. This worked well and so measures were relaxed when the numbers of those infected dropped to low levels. The result that there was a much larger second wave with many more infected and a greater number of deaths. I think a vaccine is our answer but who knows when will it be available. Is the three month long shutdown an optimistic hope?

This will be the first attempt at a newsletter where I have not seen another member for a month and where the clubhouse is not open. That being so there are some very active minds out there who have sent lots of suggestions and contributions for this letter.

There is one glaring omission in the AGM report and that is a huge thank you to John Maley – this man gives tirelessly to this club and is the axle on which it turns.

Minutes Illawarra lapidary Club Inc. Annual General Meeting 18<sup>th</sup> march, 2020. Meeting began @ 7PM with a quorate of fourteen (14). Refer to attendance book for names.

**Apologies**: Aaron Maley, Carol Strachan, Lynne Webb. Terry Hogarth, Romina, David, Peter Stanley, plus many more due to coronavirus fears.

Minutes from AGM (20<sup>th</sup> March, 2019) read & moved by John Maley, seconded by Rose Cook—carried.

<u>Affiliation with thee Gem & Lapidary Council of NSW</u>, moved Barry Young, seconded by Greg Cook-=carried.

**Affiliation with the Lapidary Club of NSW**, moved Rose Cook, seconded by Thelma Bern----carried

<u>Management committee report</u>—the success of any club is the members, and, we believe the continued smooth functioning of The Illawarra Lapidary Club has been possible because members give unstintingly of their time and energy. It is essential that the club retain younger members so they can continue the good work. In the last 12 months we had 43 new members. A big thank you goes out to the members of the committee and to the club supervisors, some of whom do a great deal but are sometimes uncredited.

To all members who have given of their time and expertise to improve the functioning of the club, those who clean rooms, carry out repairs, donate materials, support the working bees etc., thank you. All these people have benefited and ensured the continuing success of the club.

<u>Our Annual exhibition</u>, once again held at Heininger Hall in Dapto has gained a reputation that it is a lapidary display well worth a visit. The tasks to bring this to fruition are made easier by a willing band of workers. Thank you to everyone that assisted to make this event another success.

<u>Our Rock Swap at Stuart Park</u>, was well attended this year and we had sunshine which was also a bonus. Our two Open Days held at the club have been a great success, with \$400 being raised for the Cancer Cancel in May.

<u>Field trips</u> were varied and well attended thanks to the untiring efforts of David, our Trips Leader. We did have to make a decision about dogs at field trip sites which was resolved at a special general meeting.

Eva Auerbach our treasurer, has as usual presented a comprehensive balance sheet and should be commended for her bookkeeping.

<u>Joan Zealey</u> did a great job in arranging speakers etc. for our monthly socials. We would like to thank Noel Kennon for his club talks over the years and his talk in February this year was his swan song.

The mineral group has met monthly with about 15 members attending each month. Noel does a good job varying the agenda and the ID exercise is very popular. During the year we employed outsiders to clean the toilets and mow the lawns. The members who were doing the lawns are still willing but we are also getting a bit old for physical work

A thank you goes out to "Bill" who cleaned up our garden, which enabled us to mulch all the garden. A thank you also to The Botanical Gardens for supplying new plants for our garden

The constitution is a work in progress and several members are helping with our new version which we hope will be ready later in the year.

We have a very uncertain future ahead with the current events that has and will affect the functioning of the club for some time to come. We trust all members will keep in touch and look out for each other until we are back up and running again.

The treasurers report was read by Eva Auerbach. Twelve chartered accountants prepared the income and expenditure statements and Eva moved that we accept the report and use their services next year seconded by Thelma Bern-----carried.

John Maley took the position of electoral officer and declared all positions vacant. John then commenced to fill the positions.

# The elected office-bearers of the club are:

President-	Chris Hatton
Senior Vice-President-	Rose Cook
Second Vice-President	Robert Hanson
Secretary-	John Maley
Treasurer-	Vicki Randall

The elected committee of management is the above office-bearers and Lynne Webb, Barry Young, Joan Zealey and John Wiltshire.

A list of all the club committee members is with John Meeting closed @ 8.35PM

# <u>Virtual Skite Night hosted by Joan Zealey</u>

Please send one or two photos of your favourite specimens from your collection to Joan with a note on what they are, and where you collected them, and we will publish them as a virtual skite nite for May.

#### Mineral Group

#### Hello All

This note is dated March 23 and under normal circumstances our March meeting would be on this coming Wednesday. But that is not to be as we are in lockdown, along with much of everything else in the country. You know all of this of course, so you know you don't have to find a specimen to bring for the ID exercise.

However, all is not lost and I will try to help you keep in touch with Group activities by continuing with the WAI exercises. After all, you keep telling me that you like our meetings for helping you to learn how to identify minerals, so let us see how serious you are. I sent WAI 3 earlier this month and asked that you send your answers before the end of the month. So far, I have received three – one was correct and the other two were good tries. Three is not good enough, but you have a week to rectify that omission. I say to you "Get used to this new way of learning". I will be sending a new WAI every two weeks now and expect you all to do a bit of research to find an answer to send me with your reasoning (and please, not just guessing). I will be keeping records, and there may well be prizes later in the year for those who really try to improve their skills.

WAI 3 is attached (again).

As time passes, I hope you will all be looking after yourselves and your families by staying well and keeping away from any activity involving multiple people. My definition of multiple is 2 or more. Ann and I are still well, and we spend as much of our time as possible in our home and garden, and we will continue with this for as many months as it takes. So, for the time being,

cheers to you all,

Noel



<u>Editor</u> – While this is for the mineral group, I thought that the club may benefit from this expose as well.

#### <u>Mineral Group – Workshop 25 Mar 2020 – Cleaning Minerals</u> Speakers – Carol Strachan and Peter Stanley

Unfortunately, the meeting has been cancelled, however, for your information, these are the notes (by Peter) that were prepared to cover the presentation.

Tonight, Peter and I (Carol) will have you clean some "freebee" Quartz specimens. and after, we will talk to you about other methods of cleaning mineral specimens. This is a workshop, so we hope you are prepared to get your hands wet and dirty. Did you bring your toothbrush, gloves and ear muffs? We can supply an apron if it is required.

We need to do some of this outside while there is light so we might be a bit rushed. But first of all, we would like to refer you to the very comprehensive set of notes "Cleaning Minerals" prepared by Noel for a previous talk. If you don't have a copy, let Peter know and he will get you one or maybe Noel could email you a copy.

On the table is a bucket which contains specimens to be cleaned. In a moment we are going to get you to select one for cleaning. These specimens have been soaked in water.

It is important before cleaning that you soak the specimen in water for some time (hours to days) to soften any dirt especially that in cracks, nooks or crannies. You can use detergent or a soaker like NappySan if you like (or even the washing up water).

After you select a specimen, we will go to the cutting room where you will do a preliminary clean (brush) in water with your toothbrush. Then we will go outside where we will use a noisy water gun to get the dirt out of those hard to reach places. The water gun can be dangerous, so Peter will demonstrate how to use it first. Only one person can use it at a time. When we are all finished we will go back inside for some more talk.

# Peter:

# Notes for the brushing.

Firstly, wet your specimen in one of the water containers and then brush the specimen all over to loosen the superfluous dirt. It is probably better to do it under water but out is OK as long as you wash the specimen frequently to remove the loosened dirt. The toothbrush is fairly gentle and will remove any loose dirt (and loose bits of specimen, so take a little care). It will not get down into crevices, etc. For that we will need the water gun.

When that is finished, we will go outside to continue cleaning using the water gun. **Notes for the water gun.** 

Show the water gun and explain that it's an electric paint sprayer with a water jet attachment rather than a spray nozzle. Note that there are other types in particular one used in the dry cleaning industry. However the paint sprayer gun is easier to obtain from Bunnings (costs about \$130 for the sprayer and \$40 for the jet attachment).

With ear muffs in place, demonstrate the gun by spraying out on to the lawn. Show how the water jet loses its' power as it gets further away from the gun. Also note that if the jet hits your hand close up it can be painful. If that happens while you are holding a specimen, you could drop it. So it is wise to use the water gun over a soft place, for example the lawn. Never aim the water gun at a person.

Note that the water gun is best suited to hand held specimens, though it can be used on fixed objects as well.

Now with a specimen in one hand and the gun in the other, demonstrate how to clean the specimen, starting with the specimen far away and bringing it closer to the gun and then moving the specimen about in your hand as the water jet does its' cleaning (using a stop/start action, section by section).

Rinse the specimen when finished.

A final note before going back inside. The water gun has a short lead, which means you'll need an extension cord. It is therefore important to cover the connection so that it does not get wet.

# Carol:

T

# Notes for the Gerni.

A Gerni is a high powered water sprayer used for cleaning concrete driveways (etc.), namely for larger objects than the water gun. There are numerous brand names and all are available from Bunnings (\$100 plus). The object to be cleaned needs to be fixed, otherwise it will be blasted away.

I usually put my large specimens in a milk crate, secure them, and then start with the water jet at a distance and move in towards the specimens as much as is required. The specimens need to be re-arranged several times before the cleaning is complete.

f I want to clean a single specimen, I secure it by putting it in a corner.

# Notes for Ultrasonic cleaner, etc. : (Peter)

For more delicate specimens or ingrained dirt, you can use an ultrasonic cleaner. This has a bowl into which you put the cleaning fluid (say water + detergent) and the specimen. When turned on, high frequency sound waves pass through the fluid causing microscopic bubbles to form and collapse, loosening the dirt in the specimen. Best if the specimen is suspended upside down (in a net – plastic onion bag) so that the dirt will fall down into the bowl. May not work for deep cracks or overlapping crystals. Cleaning takes a few minutes.

One Internet user reported he prefers the water gun.

Compressed air can also be used but it is not recommended.

Blasting with powder softer than the specimen, is sometimes used. For this, special equipment and a compressor is required.

If you don't have this equipment, dirt in deep crevices can sometimes be removed by picking at it with a toothpick or a needle and squirting it with a plant sprayer or hose. Calcite can be cleaned with baking soda (1 tsp per 4 litres – not tried).

# Notes on Chemical Cleaners:

Even after removing all the dirt, your specimen may be further enhanced by chemical treatment to remove staining. You must be careful the chemical will not destroy your specimen. Try a test piece first. I have a handout which indicates particular minerals that are soluble in certain acids.

We want to talk only about Oxalic Acid and Hydrochloric acid, HCl, (also known as Muriatic Acid). Both are available from Bunnings. Both can be dangerous. It is important to read the instructions before use.

Use a plastic bucket with a lid for these chemicals.

Prepare them in a well ventilated area.

Avoid breathing the fumes.

Handle preferably with rubber gloves, especially HCI.

If you get these chemicals on yourself, wash well immediately.

Oxalic acid is poisonous, can be absorbed through the skin and accumulates in your body organs.

HCI can give nasty burns.

While heating these chemicals and/or using high concentrations will speed up the reactions, the health risk is also increased.

#### Oxalic Acid:

It is a white crystalline powder (like sugar).

It removes iron stains. Great for Quartz, Tourmaline, Beryl, Spinel, chrysoberyl etc., but not carbonates (calcite), phosphates nor fluorite. Always test first.

I dissolve 2 teaspoons in 5 litres (half bucket) water (warm).

Add the specimens carefully using stainless steel tongs (or better, use a plastic onion net) and cover with the lid.

Check every 3 or 4 days by removing specimens (with the tongs).

When done, wash specimen thoroughly. You can use something like washing soda to neutralise any residual acid.

Any acid not removed from cracks may appear later as white crystals. It is best to soak porous or fractured specimens beforehand in water as this will limit the amount of chemical absorbed into the specimen.

Old yellow/green solutions, high acid concentrations or high iron content, can cause the deposit of a tenacious yellow coating (iron oxalate?) on your specimen. If you are lucky this may be removed in HCI.

A rule of thumb is that every 10 degrees increase, doubles the reaction rate.

Also note that oxalic acid should not be used on Lanthanide minerals.

Some testing I (Peter) did showed tourmaline and garnet may lose their shine, while gypsum will slowly dissolve and become smaller. So if you use oxalic on anything other than quartz, it would be best to test a small sample first.

# HCL :

More aggressive than Oxalic Acid. Also removes iron stains and is used to remove unwanted calcite from specimens.

Great for Quartz, Tourmaline etc. but not carbonates (calcite) or phosphates (see Noels notes "Cleaning Minerals").

Some people use this acid concentrated – be very careful.

Adding calcite to concentrated acid may cause the solution to foam and overflow. You can't be too careful. I add a small amount (<50 ml) to 5 litres of water (<u>always add acid to water, not</u> <u>the other way around</u>). Best to add your specimens to the water first before adding the acid.

A weaker solution is safer but the reaction is slower. Cover with the lid.

Check frequently by removing with stainless steel tongs.

Keep in the dark as it has been reported that yellow stains may occur otherwise. When done, wash specimen thoroughly. Neutralise the acid with washing soda. Be aware that any residual acid in cracks may cause unexpected reactions later.

#### Other chemicals :

Sodium Hydroxide NaOH attacks quartz. Hydrogen Peroxide H2O2 removes black manganese stains.

**Finally:** If all else fails, sometimes offending dirt can be removed with a wire brush. But be sure to test that the brush does not scratch the specimen. And be careful of edges which may break off. Generally a soft steel brush works on quartz, a brass brush or nylon brush on softer material.

With regards to the associated table which lists the "70 minerals we should know" and their solubility in acids (HCI, Nitric, sulphuric, Fluoric and Oxalic), the data (Y = Yes, N= No) has been gleaned from Internet sources and is indicative only. A blank means no data was available. If you intend to treat a mineral in acid use the table as a guide, and run a test on a small piece of the mineral before proceeding. Be sure to update the table with your results.

My (Peter) experience is with Oxalic acid only.

Quartz is OK with Oxalic. You can leave it to clean in the acid for long periods, but beware it may get coated with a tenacious yellow staining (see above), and I have known pitting to occur.

Although the table indicates Tourmaline (schorl) and Garnet are not soluble in Oxalic, I have known them to lose their lustre.

Also, I had some Gypsum with an ugly coating. It is soluble in Oxalic, but with careful attention I was able to dissolve the coating and leave a shiny specimen.

Peter and Carol

#### A selection of smiles from Peter S

Accorded to Desmond Tutu :

"When the Missionaries came to Africa they had the Bible and we had the land. They said 'Let us Pray', so we closed our eyes and prayed. When we opened them, we had the Bible and they had the land!" Lawyers believe a person is innocent until proven broke.

The first piece of luggage on the carousel belongs to no-one.

John Glenn – As I hurtled through space, one thing kept crossing my mind "every part of this rocket was supplied by the lowest bidder".

I was addicted to Hokey Pokey but I turned myself around!

#### Noel writes

Here we go into territory we have never been in before as this is my first letter to you while all else is in lockdown. Ann and I trust you are all staying well, in your own homes as much as is possible with super clean hands and lots of good stuff to keep you occupied. I am going to add to that with a series of WAI's. How many, well that remains to be seen. You have just finished WAI 3 and all I can say is that those who sent me an answer got it right sooner or later. That answer was, of course, a brilliant red partial crystal of corundum variety ruby,

Well, here is WAI 4.1 which is a spectacular cluster of magnificent crystals probably from the hills of southern California. Double click on it to get a bigger picture and enjoy. Now send me your answers as you have seen specimens of this mineral species several times at our meetings over the last couple of years.

Stay well and keep your grey matter working as does a well oiled machine. Cheers



# Janet F sent in this prescription on how to cope with Covid -19

Heard a Dr. on TV saying in this time of Coronavirus staying at home we should focus on inner peace. To achieve this we should always finish things we start and we all could use more calm in our lives. I looked through my house to find things I'd started and hadn't finished, so I finished off a bottle of Merlot, a bottle of Chardonnay, a bodle of Baileys, a butle of wum, tha mainder of Valiumun srciptuns, an a box a chocletz. Yu haf no idr how feckin fablus I feel rite now. Sned this to all who need inner piss. An telum u luvum. And two hash yer wands, stafe day avrybobby!!!

# **Bobs Faceting workshop**



#### Bob's granddaughter writes :

What do you do with your spare time, well Bob cleaned his workbench - now he can't find a thing. What a nice clean bench.

Obviously, Bob has a stash of toilet paper in the corner which he can still use it for his faceting, he's got to be on a roll

# **April Trip: 1/4/2020 Location: Your collection**

Description: A fun filled activity to practice our fossicking skills, photography skills and computer skills.

1.We (Romina and I) thought we could "fossick" through our collections from previous trips (club and private) to find our most interesting / unusual finds.

2. Then "photograph" them in a favourable light, with a brief description on when, where and why they are your favourite.

3. Then upload them to your "PC" or device and send them back to us via email to organise them for the newsletter.

\* Please have your contributions in by 10/4/2020 for the next newsletter.

Stay home, stay well and happy fossicking.

# Regards, **David and Romina**

Editor: I am still a bit worried about the date of the trip

# Silver in History - No Silver Bullet from Jenny G

The Lincoln Mine in Utah USA is perhaps one of the oldest Silver Mines in America. It was first chiseled out by the Spanish, possibly in the 18<sup>th</sup> Century, and later rediscovered by a Mormon Bishop, James Rollins id 1858. He found old Spanish hand tools on site.

At this time the Mormons were mobilizing for a possible war with USA. An army camped outside Salt Lake City. In desperate need of lead bullets, they began making bullets from the ore from the old Spanish mine believing it was lead. They soon discovered that their bullets were made of almost pure Silver.

A small mining community camped close to the mine, and the Mormons built a smelter which proved very inefficient. They did extract some lead but the valuable silver ended up on the slag heap. Miners from a nearby town, built a smelter and were the first to successfully extract silver.

Miners soon outnumbered the Mormons and the mine was purchased by the British I n 1900. The company went bankrupt, and abandoned.

But due to a recent price surge in Silver the old mine has been operational.

# Bob and Carol sent in this little gem of Aussie humour



There is, attached to this newsletter, an email from Kathy Selwood showing what this virus denied has us in the ANZAC weekend carving workshop

Cheers

Chris