

Issue 2018/1
February 2018



If you have any SMLC-related news or stories that you would like to share in SMaLtalk, please get in touch by email at smlcnewsletter@gmail.com or by leaving me a note on the clubroom members board or by post to SMLC, 20 Maritime Lane, Leith, EH6 6RZ. This newsletter is available on our website in full colour.
Editor: Wendy Morley

CHAIRMAN'S REMARKS

Editor: Firstly I'd like to echo all the thanks given to Ian Marshall who chaired the club energetically over the last 2 years.

The committee, and others, give a great deal of time to keep the club running, and this is very much appreciated.

Our new is Chairman Godfrey Fitton:

"Welcome to another year at the SMLC. The Club will be 60 this year and the Committee will be discussing ways in which we might celebrate this important milestone. We've already received some interesting suggestions from members and would welcome any more thoughts you might have.

Another significant event is that we've recently signed a new lease on the Club premises for the next five years. As part of the lease agreement we were asked to carry out a fire-safety assessment and this has prompted us to review all aspects of Club safety. The Committee has approved expenditure on a new fire alarm system and other safety measures which should be in place soon.

In the course of 2018 the Committee will be exploring the feasibility of applying for charity status for the club, which will bring many financial benefits, and we'll keep you informed of our progress.

Finally, on behalf of the Committee, I hope you have a happy and productive 2018, and another enjoyable year of activities at the Club."

A TRIP TO LEADHILLS

After an introduction to the area and its history from Richard Gillanders, we moved onto a small valley to try our hand at goldpanning, with (essential) permission from the estate. Lead, gold and silver have all been found in the area.

However, goldpanning is harder than it looks, and we saw more wildlife (dragonfly, butterfly, frog and raptor) than gold!



The Leadhills Miners Library is the oldest subscription library in the British Isles. Members met monthly to exchange books. It was featured on STV's The People's History Show (Sept 11th 2017), still available here: <https://player.stv.tv/summary/peoples-history>

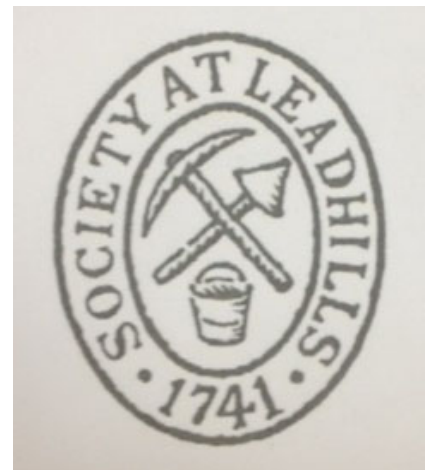
Their logo (which is similar in design to our club's) was designed by local artist Andrew Foley – inspired by an old library stamp first used in 1763 (below).

The library is open in the summer months:

<http://www.leadhillslibrary.co.uk/>

The Susanna Mine (which was previously explored by SMLC members) was brought to life by looking at diagrams showing the extent of the works, and seeing beautiful galena specimens from the mine. We then looked around on the spoil heaps, finding Pyromorphite and Byrites.

Many thanks to Richard for organising the trip.



SCOTLAND'S EARLY SILVER EXHIBITION

This free exhibition (on until 25th Feb 2018) demonstrates how silver became the most important precious metal in Scotland over the 1st millennium AD.

<https://www.nms.ac.uk/national-museum-of-scotland/whats-on/scotlands-early-silver/>

Included in the display is the amazing collection of hack silver (from the 3rd century AD) found in Fife by the teenage metal detectorist David Hall.

<http://www.bbc.co.uk/news/uk-scotland-edinburgh-east-fife-40778533>

DOWN TO EARTH EXHIBITION

Celebrating the centenary of Scotland's largest meteorite, all 4 pieces (Strathmore) are on display until 1st April 2018.

<https://www.nms.ac.uk/national-museum-of-scotland/whats-on/down-to-earth/>

CLUBROOM TALKS @ 7:30pm

Thursday 1st March "Ethical Mining in Tanzania and Sri Lanka"
Alistir Tait

Thursday 29th March "Fossicking in the Outback: Opals & Sapphires
of Eastern Australia"
Carmen Garcia-Carballido

**** A taste of this talk is presented in a splendid article by Carmen on the next pages of this newsletter to whet your appetite! ****

Thursday 26th April Heddle Night

ROCK HUNTING TRIPS

This season's trips have been enjoyable and fruitful, many thanks to David Andrews for coordinating.

Sunday 25th March Dunure – Richard Butler is organising

Further information on the trips will be displayed in the clubroom, on the events calendar of our webpages, and sent by email.

FOSSICKING IN THE OUTBACK

Opals & Sapphires of Eastern Australia

By Carmen Garcia-Carballido (FGA DGA L.Geology MSc EurGeol)

Off to Australia!

To test the skills acquired in two years training as a Gemmologist with GEM-A (The Gemmological Association of Great Britain), my husband planned a 3-week field trip to the sapphire and opal fields of Eastern Australia. We flew from Aberdeen to Sydney in March 2017, hired a motorhome and headed into the 'outback' of New South Wales (NSW) and Queensland (see our route in Figure 1).

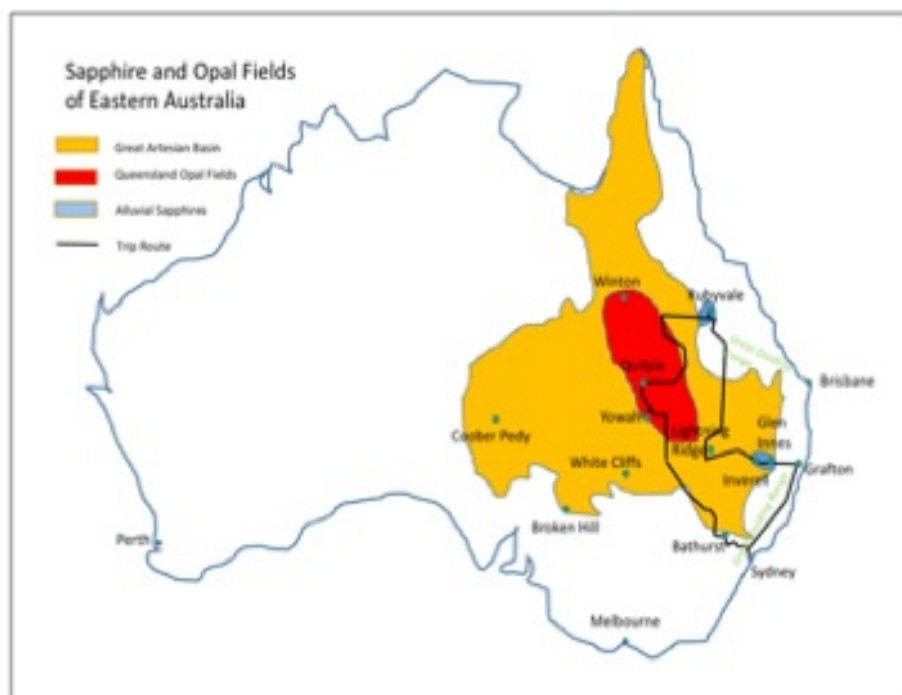


Figure 1. Map of Australia showing key sapphire and opal locations and the fieldtrip itinerary. Drawing credit: Peter Scott-Wilson

A hundred-year storm, cyclone 'Debbie', making landfall on the coast put paid to our plan to visit a gem dealer in Yepoon and check out the Marlborough Chrysoprase. To keep safe we stayed inland, driving 4500 km in 13 days and camping at a different site every night.

Two days from Sydney, our first gemfield was 'Glenn Innes' (NSW). We tried fossicking for the first time. A petrol station sold us a 'bucket of dirt' and rented sieves for AUS\$20. Washing the dirt off we found our first sapphires and zircons. We admired Robert Cook's collection of locally mined parti-colour sapphires that he cuts in his shop at the visitors information centre. After some purchases, husband had to drag me out of Robert's shop.

60 km west, at Inverell, we met Jack Wilson (Figure 2a), a sapphire mine owner of longstanding, and his wife Dallas, who designs lovely jewellery with blue sapphires from his mine. I bought some untreated rough blue sapphires (Figure 2b) with the idea of learning to cut them myself. Jack explained the host rock (i.e. the primary deposit where the sapphires formed) has not been identified. These sapphires are found in secondary, alluvial deposits.



Figure 2a.

*Jack Wilson
showing Carmen
rough sapphire
from his New
England mine.*

*Photo credit: Peter
Scott-Wilson.*

Figure 2b.

*Rough untreated
sapphires from Jack
Wilson's mine in the
New England region
of NSW.
Left (10.21 ct) and
right (6.54 ct).*

*Photo credit: Carmen
Garcia-Carballido*



After a long drive west, roads littered with dead kangaroos took us to Lightning Ridge, famous for its black opals. The town in the desert appeared deserted. Tourists don't arrive until Easter. Only emus stay all year round. We camped in a site by the artesian baths, a wonderful way to relax and learn about the immense subterranean artesian system (see Figure 1) that probably played a role in the development of the opal fields. We visited an underground opal mine and were Allowed to fossick for opals on the 'mullock heaps' of old spoil outside the mine. Husband found a small sample. I wasn't so lucky.

Next day we headed northwards. I was disappointed I couldn't buy any black opals



Figure 3. Variety of opals from Eastern Australia. Left: Lightning Ridge (NSW) white and black opals mined and cut by Greg Armstrong.
Top: Quilpie (Queensland) boulder opals mined and cut by Eddy Lunney.
Bottom: Yowah boulder opals cut by Scott Shorten.

Over the state boundary, we headed north for St. George (where husband sampled the offerings of a winery and handed over the car keys), Roma (where the oil and gas industry's mega coal bed methane (CBM) project produces gas from extensive Permian and Jurassic coal deposits to supply the energy needs of c.90% of the homes in Queensland) and Injune, gateway to the famous Carnarvon Gorge (where the hotel was running low on food and we first heard about hurricane 'Debbie'). Heavy rain was forecast as cyclone 'Debbie' made landfall. In the flat outback, where the roads cross floodways and creeks, rain brings widespread flooding and the unwary motorhome driver can easily be stranded. This was not an attractive prospect, so unfortunately we had to give the beautiful Carnarvon gorge a miss. We drove inland to the 'Queensland Gemfields' area, which includes the localities of Anakie, Rubyvale, Sapphire and Emerald, where green gemstones initially taken for emeralds were found in about 1880 when drilling for water ahead of railway construction. Green and yellow sapphires and zircons have been mined in this area since the 1880s.

At the 'Sapphire Caravan Park', a woodland holiday retreat with a swimming pool, we watched wallabies and lorikeets being feed. Taking Jack Wilson's advice, we looked for Peter and Eileen Brown at the 'Rubyvale Gem Gallery', but as they were on holiday, the shop manager showed us Peter's amazing fancy cuts on parti-colour sapphires (Figure 4). The shop is a Gemmologist's paradise. Alicia Pray was cutting beautiful black star sapphire cabochons from the 'Desperado mine', and we bought a bag of 'wash' from the mine to fossick back home in Scotland.

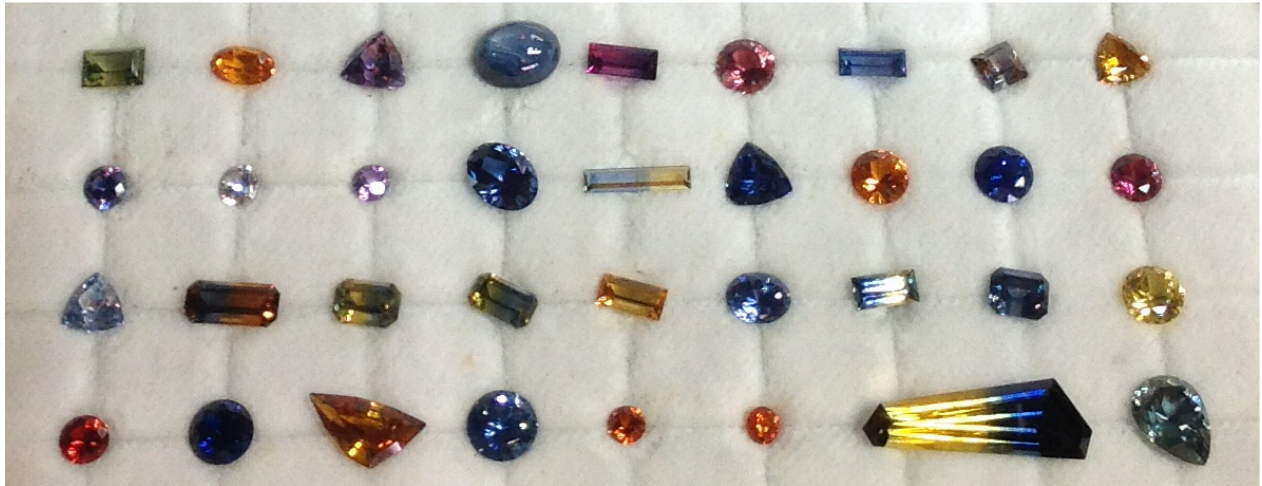


Figure 4. Coloured sapphires collected over a period of 40 years in the 'Gemfields area' of Queensland by Peter Brown of the Rubyvale Gem Gallery. Photo credit: Carmen Garcia-Carballido; taken with permission of shop manager.

Alan, a lively Stranraer émigré, took us round an underground sapphire mine in Rubyvale. Prospectors first dug 1m diameter vertical shafts through 'shin cracker' overburden (sandy gravels). The bottom layer of wash sits unconformably over an eroded granite. When miners hit the granite at a depth of 50 feet or so they dug horizontal tunnels to follow the alluvial pay zone where sapphires, zircons, garnets and occasionally diamonds concentrate (Figure 5). Miners knew if they found a block of quartz in the wash, and sapphires were present, they were likely to aggregate upstream of such 'Billy boulders'. This helped them to orient their tunnels.

From the fascinating 'Queensland Gemfields', we drove westwards to Barcaldine ahead of cyclone 'Debbie's' rainclouds. There we decided to head south towards the Quilpie opal fields and give the dinosaur fossils of Winton a miss. As the land became more arid, the soil turned red, the gum trees thinned out and the grass grew sparse. Intrepid wildlife competed with massive 'road trains' for the driver's attention on the empty roads between the gem locations. We passed trucks hauling three trailers, sometimes four.

Arriving in Quilpie, our first morning call was the Visitor Information Centre. Everywhere we went they overwhelmed us with useful information, friendly advice and ideas for things to see, and a chance to cool down from the 35°C heat of early autumn in the outback. In Quilpie, they told us St. Finbarr's Catholic Church was 'worth a look'. Its altar, font and lectern have impressive panels of boulder opal donated in 1976 by local miner Des Burton, the father of the boulder opal industry. I was literary on my knees to adore them.



Figure 5.

Geological section c. 50 ft below the surface inside the 'Walk-in Miners Heritage Sapphire Mine' at Rubyvale (Queensland).

The alluvial sapphires concentrate within narrow 'wash zones' (average 15-20 cm as marked by dotted lines) above the 'granite floor' and below several 10s of feet of 'sandy alluvial gravels'.

Elongated features are pick axe marks.

Photo credit: Carmen Garcia-Carballido.

The only shop open in Quilpie sells everything. There I found the last copy of Greg Pardey's 'Black Opal, a Comprehensive Guide to Cutting' on its shelves and read it cover to cover before we got back to the UK.

Walking back to the motorhome on our way out of town, we noticed that the 'Opal Hunter' shop had opened too. Asking if I could buy some rough opal to cut back home, shop owner, Eddy Lunney told me he would need to get to know me before he would know what he wanted to sell me. Induction into opal heaven started with a tour of the shop, the lapidary workshop and the yard with part of his huge stock of boulders from his opal mine. By teatime he had given me a masterclass in boulder opal cutting and polishing (Figure 6). I absolutely loved it! The dark blue and purple colours he brings out of the transparent opal (known as 'crystal') are gorgeous (see Figure 3, top).

We spent the evening with Eddy and his lovely wife Lynda and had such a fabulous time it was really hard to leave Quilpie the next morning.



Figure 6.

*Eddie Lunney
from Quilpie
shows Carmen his
rough opal.*

*Photo credit:
Peter Scott-
Wilson*

We noticed a change in the weather. The temperature had dropped to 20C as we drove to Yowah. In this famous opal location, we found Scott Shorten in the tourist information doubling as librarian. At other times he guides tours of the opal mines. After lunch, with his shopkeeper hat on, he showed us round the 'Yowah Opal Centre'. Yowah opal is found inside nodules. Nine out of ten nodules are empty, so it is always exciting to crack open (hammer or better saw through) one to see whether there is any opal inside. Scott sold us some good samples (Figure 3, bottom).

On the way back to Sydney, we stopped at Bathurst to see the astonishing minerals in the 'Australian Fossil and Mineral Museum' collected by Warren Somerville. The exhibits include the only complete skeleton of a Tyrannosaurus Rex in Australia.



Figure 7.

*The impressive
complete
skeleton of a
Tyrannosaurus
Rex; Peter
showing the
human scale.*

*Photo credit:
Carmen Garcia-
Carballido*

Before flying home, Matthew Morin (FGA) of jewellers 'Altmann & Cherny' on Sydney's Pitt Street, showed me how beautiful opals are used in modern jewellery (Figure 8). The shop also hosts 'Olympic Australis', the largest and most valuable piece of opal ever found. It is a white opal from Coober Pedy, which weights 17,000 carats, measuring 11 inches long by 4.5 inches high – see picture here: www.altmanncherny.com.au/famous



Figure 8.

Carmen meeting Matthew Morin (FGA) at Sydney jewellers 'Altmann & Cherny'. Matthew is also the President of, and a Gemmology tutor at the NSW division of the Gemmological Association of Australia. Carmen is modelling a Koroit boulder opal pendant on white gold from the shop.

Photo credit: Peter Scott-Wilson.

I hope you have enjoyed reading about our little adventure and that it entices you to visit wonderful Australia.

Acknowledgements

I wish to thank my husband, Peter Scott-Wilson, for organising this wonderful tour. Eddy and Lynda Lunney for their hospitality at Quilpie. Jack and Dallas Wilson, Robert Cook, Greg Armstrong, Scott Shorten, the staff at Rubyvale Gem Gallery and Matthew Morin for giving generously their time to discuss Australian gemstones with me.

NEW MEMBERS

Congratulations to these new members who have completed their training:



Left to Right:
Jane Herries (London),
Jan Montgomery,
Jane Ashby,
Vanessa Black,
Robert Kerr,
Vasile Marchal (Brussels)



Left to Right:
Beth Hall,
Dobromir Pietras,
Catherine Muirden,
David Sherrit

DISPLAYS & OUTREACH by Ian Marshall

The International Gold Panning Competition took place in Moffat 7-12 August 2017.

There had been excessive rain flooding the competition and camping areas, but this did not delay the grand parade of more than 20 countries nor the opening ceremony.

The SMLC display was in the Sports Centre, which was inside, though being at the far end of the recreation area, did not attract too many of the competitors or visitors.



Those attending appreciated the mix of Lapidary materials, polished agates, local rocks and minerals and microscopes supported by numerous boards on Scottish Gold, Club activities, etc. and the tombola raised £129. A hard but enjoyable week saw a number of Members competing – Peter Dallas / family & Rod Wood (14th in the Novice category), or assisting with the organisation – Richard Butler (Gold Setter & Checker), James ‘Biff’ Frame and Rod Wood (shovelling 100s of buckets of sand).

There wasn't gold at the end of every rainbow! However, there was great camaraderie amongst the nations which spilled over each evening into ceilidh dancing and singing.



Australian, Hau Mai (pictured left) from the Mount Gravatt Lapidary Club in Queensland, has since visited the Club - donating Australian agates, petrified wood & tumbled stones. He was treated to a gold panning experience near St Mary's Loch with Peter & Rod.

His club has 300 members, with 80 -100 active members in any given week. They have sessions running almost every day but are separated between silver and cabbing / faceting. They often have a full house of around 30-50 members on silver days, and 20-30 when cabbing!

<http://www.mgslapidary.com.au/>

In September 2017, over 350 visitors toured the Club as part of the **Edinburgh “Open Doors”** weekend. The continuation of the Tombola raised a further £222. Local dignitary, Dierdre Brock (SNP MP for Edinburgh North & Leith) visited on 24th September, and posted on Twitter encouraging others to visit.



12 members volunteered to help at **Dynamic Earth** over four days in October, during school holiday week. This visit had as a main theme, Scottish sedimentary rocks and fossils. A steady stream of local and foreign visitors – especially the youngsters – were delighted to peer down the microscopes, handle the minerals, marvel at the range of agates, polish a stone, and go away with a small bag of hand-picked stones. The educational input is greatly appreciated by Dr Hermione Cockburn and her team, and the club benefitted from a donation of £250.

Our annual **At Home Event** in November featured an interesting new display, put together by Ian Marshall & Richard Gillanders, with Africa as the main theme. This year, 49 Members attended with 69 visitors. Again, this is a disappointing result for all the hard work done over the previous week in cleaning and preparing the premises for the social event of the year. Despite this, the ongoing Tombola achieved an additional £150, the Shop did a roaring trade, making about £630, the displays and catering were much admired and most went away happily.

Huge thanks to everyone who supported the many events - New Members showing their first stone, established Members showing some of their amazing collections; the Faceters and Silversmiths; the Home Bakers and Washer-ups; the Speakers, the Trainers, the Presenters and Explainers; the Cleaners, the Engineers and them wot do the Drain-ers is this the cue for another song? all of you that do the Chores and them opening up and closing doors! The Membership, Web Site, Treasurer, Secretaries, when will it stop? oh, the 'man and wumman in the Shoap'. What e'er you do, just be nice and listen to the best advice! Ian Marshall

