



The SA Gem and Mineral Club

Associated Member of F.O.S.A.G.A.M.S.

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NEWSLETTER - N O V E M B E R 2012

LAST MEETING : 25th October 2012, at the Peacock Room at the Training Centre, St George's Hospital, Park Drive. There were 13 members present and 3 visitors, although Neil Bush wasn't able to stay for long. Our other 2 visitors were Callum Anderson of the NMMU, our speaker for the evening, and his friend Adri Kok.. After welcoming everyone, Colin brought the following important matter to the attention of members:

The Executor of late Norman Brittle's estate is putting the house up for sale, and the Club will accordingly lose its workshop premises. Although there is not yet any time-frame, Colin urged all members to please put their minds to try and find an alternative, which



Donae's magnificent Opal cross

would have to be reasonably spacious to accommodate all the club's machinery, and fairly cheap as the club is not all that well off and has few members. Ziggy Klotz has kindly offered workshop space at his house, which can take some of the machines but not all, and it may be possible that members will be asked individually to store items until alternative premises can be found. Len von Blottnitz also offered to store some items in his rent-a-store unit. Colin said that no idea is stupid, all suggestions would be welcome, and we will discuss further at the next club meeting. He stressed that the loss of a workshop does not necessarily mean the end of the Club, as the monthly meetings will still go ahead in the interim.

It was then time for Callum to present his lecture, which was on the subject of the geology and emplacement of the Bushveld complex and the platinum mineralization. The talk was illustrated with slides depicting various sections of the area, and cross-sections indicating how the layers formed and built up. The time-frame of the formation started 3100 million years ago and it took round 5 to 10 million years to create the complex. It was fascinating to learn of the mini-continents and seas which existed then, and of the various processes, particularly the movement of magma, which resulted in the present geology and the distribution of precious metals.



Large chunk of Australian fire opal



Callum Anderson gets the next slide ready



"O" is also for Oxblood Coral



Tourmalines come in many vivid colours

After this most interesting talk, members looked at the various items on display on the table, and enjoyed Fiona's tea, coffee and cake.

NEXT CLUB MEETING will be held on the November 29th, and will be our "Christmas" meeting when we get together with snacks and drinks,. Each person is asked to bring a small gift to the value of roughly R30-R50, such as a good cabochon made in the club's own workshop, for the lucky draw. The Club will supply red and white wine, tea and coffee, and members are asked each to bring a **SMALL** plate of eats, sweet or savoury. This is usually a light-hearted and informal occasion when we can spend more time chatting and socializing and members are urged to attend this last meeting of the year.





MEMORIAL GATHERING IN MEMORY OF NOËL PEARSE

There was no formal funeral held for Noël, but members of the Club and her other friends are to be afforded an opportunity to celebrate her busy and talented life, and to reminisce about and say farewell to her. A Memorial Tea has been organised by Noël's cousin, Rod Pringle, to take place in the Hall at Kruger Gardens on Thursday 15th November 2012 at 10.45am, parking inside the complex. At the gate in Admiralty way ring 200 and press the green bell, **wait for gate to close behind you**, then drive straight, and go over the Stop street. You will see the swimming pool in front of you and the Hall to the right, you may park outside the Hall.

STONES OF THE MONTH : TIGER'S EYE and TOPAZ and anything beginning with "N".

The only stone I could find beginning with "N" was **NEPHRITE** :



Carved green nephrite bowl

Nephrite is a variety of the calcium and magnesium-rich amphibole mineral actinolite (aggregates of which also make up one form of asbestos). It is one of two different mineral species called jade. The other mineral species known as jade is jadeite which is a variety of pyroxene. White nephrite is nearly pure tremolite, while most nephrite is green owing to the Fe content in actinolite. Chromium colors nephrite emerald green, and yellow to brown nephrite is stained by iron oxides and hydroxides introduced along grain boundaries.

While nephrite jade possess mainly grays and greens (and occasionally yellows, browns or whites), jadeite jade, which is rarer, can also contain blacks, reds, pinks and violets. Nephrite can be found in a translucent white to very light yellow form which is known in China as *mut-ton fat jade*, in an opaque white to very light brown or gray which is known as *chicken bone jade*, as well as in a variety of green colours.



Antique Chinese nephrite snuff bottle



Carved Chinese teapot

Canada is the principal source of modern lapidary nephrite. Toughness measures the brittleness or the ability of a material (or in this case a mineral) to break. According to the Government of British Columbia, where huge boulders of nephrite are found, the fracture strength of nephrite is about 200 MN/m² whereas that of jadeite is about 100 MN/m² which is an impressive quality of nephrite. It is commonly known as the toughest natural mineral on earth.

Though Jade culture had existed in Ancient Europe, jade was only primarily used as tools and weapons. As the Bronze Age and the Iron Age approached, more suitable materials became available, and the Europeans slowly abandoned the use of Jade. Interestingly enough, the Chinese culture chose to use jade for more ornamental and ritualistic purposes once the need for jade as tools declined. From the Kingdom of Khotan, on the southern leg of the Silk Road, yearly tribute payments consisting of the most precious white jade were made to the Chinese Imperial Court and there transformed into objects d'art by skilled artisans, as jade was considered more valuable than gold or silver.



Chinese Lacquer clock supported by carved green nephrite parrots