

Tea Tree Gully Gem & Mineral Club Inc. (TTGGMC)

Clubrooms: Old Tea Tree Gully School, Dowding Terrace, Tea Tree Gully, SA 5091.

Postal Address: Po Box 40, St Agnes, SA 5097.

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Treasurer: Russell Fischer. Email: rfischer@bigpond.net.au

Membership Officer: Augie Gray: 0433 571 887 Email: teatreegullygmc@gmail.com Newsletter/Web Site: Mel Jones. 0428 395 179 Email: teatreegullygmc@gmail.com

Web Address: https://teatreegullygemandmineralclub.com

### "Rockzette"

# Tea Tree Gully Gem & Mineral Club News

#### President's Report / Notices

So, Christmas is over and done for another year. I hope everyone had a safe and enjoyable Festive Season.

Our Christmas lunch on December 9th was well attended by 32 people, and the weather was perfect. The glazed ham was a hit as usual, and there was no shortage of tucker. Three quizzes courtesy of Janet Harris and Augie Gray proved a challenge, and the 2 large raffle hampers were won by Pat Mabbitt (1st draw) and Janet Jones (2nd draw). Many thanks to all who contributed items. The new year will mean moving up a gear to get prepared for our biennial Exhibition in July. We would appreciate the support of as many members as possible to make this event a success - it must pay our rent for the next 2 years! Members can volunteer to help set up on the Friday, man stalls on the weekend, help in the kitchen, make food items to sell in the 'cafeteria', donate items to the white elephant stall or sell their own items with a 10% donation to the Club. There are many ways in which to help, and you do not have to commit for the entire weekend - even a few hours will be greatly appreciated.

That's about all for this issue, but I will take the opportunity to wish all our members a happy, healthy, safe, and prosperous 2019. Cheers, Ian.

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#### Happy New Year - 2019

Tuesday Faceting class resumes on 8th January Wednesday Silver class resumes on 9th January Thursday Lapidary class resumes on 10th January Club meetings resume on Thursday 7th February Friday Silver class resumes on 8th February

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NB. TTGGMC 2019 Biennial Exhibition Saturday July 20th and Sunday July 21st, 2019.

#### **Happy Birthday**

Members celebrating January birthdays: 5<sup>th</sup> – Alan Cook. 11th - Janet Harris. 5th - Deane Smith. 13th - Janet Jones. 18th - Yvonne Deegan.

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#### General Interest

Pages 2 to 4: Augie's January 2019 Agate and Mineral Selections...



Pages 5 & 6: Ian's Jan 2019 Amethyst Quartz Collection Selections...



Pages 7 & 8: Janet and Mel - Onboard 'The Overland' train...



Pages 9 & 10: Saurer A type Railcar by Paul Tol...



Pages 11 & 12: Pat's DIY Cards.



Pages 13 to 16: 'Newcastle and Rail - The Neverending Story'.



Pages 17 to 19: Humour, Novelty and Members Notice Board...



The Tea Tree Gully Gem & Mineral Club Inc. is not and cannot be held responsible or liable for any personal injuries, loss or damage to property at any club activity, including, but not limited to, meetings, field trips, all crafts and club shows. An indemnity is to be signed by all participants before each and every field trip activity they attend.

#### Club Activities / Fees

**January** 

**Edition** 

2019

#### Meetings

Club meetings are held on the 1st Thursday of each month except January.

Committee meetings start at 7 pm. General meetings - arrive at 7.30 pm for 8 pm start.

#### Library

Librarian - Augie Gray

There is a 2-month limit on borrowed items. When borrowing from the lending library, fill out the card at the back of the item, then place the card in the box on the shelf.

When returning items, fill in the return date on the card, then place the card at the back of the item.

#### Tuesday Faceting/Cabbing

Tuesdays - 10 am to 2 pm. All are welcome. Supervised by Doug Walker (71202221).

#### Wednesday Silversmithing

Wednesdays - 7 pm to 9 pm. All are welcome. Supervised by Augie Gray (8265 4815 / 0433 571 887).

#### Thursday Cabbing

Thursdays - 10 am to 2 pm. All are welcome. Supervised by Augie Gray (8265 4815 / 0433 571 887).

#### Friday Silversmithing

Fridays - 9 am to 12 noon. All are welcome. Supervised by John Hill (8251 1118).

#### Faceting/Cabbing/Silversmithing Fees:

A standard fee of \$3.00 per session applies – to be paid to the session supervisor.

In the interest of providing a safe working environment, it is necessary to ensure everyone using the workshops follow the rules set out in Policy No. 1 - 20/11/2006.

It is necessary that Health and Safety regulations are adhered to always.

Everyone using the workshop must ensure:

- that all club equipment (e.g. magnifying head pieces, faceting equipment, tools, etc.) used during the session, is cleaned, and returned to the workshop after usage.
- · that all work stations are left in a clean and tidy state:
- that all rubbish is removed and placed in the appropriate bin;
- · and where applicable, machines are cleaned and oiled or dried.

NOTE: The Tea Tree Gully Gem & Mineral Club Inc. will not be held responsible or liable for any person injured while using the club machinery or equipment.

#### **Club Subscriptions:**

\$25.00 Family \$20.00 Family Pensioner \$15.00 Single \$12.50 Single Pensioner \$10.00 Joining Fee



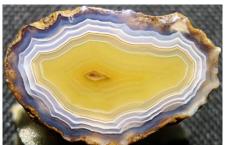
Tea Tree Gully Gem and Mineral Club Incorporated, Old Tea Tree Gully School, Dowding Terrace, Tea Tree Gully, South Australia, 5091

#### Augie's January 2019 Agate and Mineral Selections – Page 2 of 3.

#### Augie's January 2019 Agate Selections. Continued...



14 Moctezuma







Amazonite, Smoky Quartz and Albite - Tree Root pocket, Two Point claim, Teller Co., Colorado.



Anglesite - Touissit, Oujda-Angad Prov., Oriental Region, Morocco.



Augelite on Quartz - Mundo Nuevo Mine, Mundo Nuevo, Huamachuco, Sanchez Carrion, La Libertad, Peru.



Beryl var. Heliodor - Volodarsk-Volynskii, Zhytomyr Oblast, Ukraine.



Chrysocolla - Mashamba West Mine, Kolwezi District, Katanga Province, D.R. Congo.



Fluorite - East Green Mine, Saline Mines, Cave-In-Rock, Illinois -Kentucky Fluorspar District, Hardin Co., Illinois.



Fluorite - Rosiclare Lv Annabel Lee Mine, Illinois.



Fluorite and Quartz - Shangbao, Leiyang Co., Hengyang Prefecture, Hunan Province, China.



Hedenbergite - Tormiq Valley, Haramosh Mts, Gilgit District, Northern Areas, Pakistan.

#### Augie's January 2019 Agate and Mineral Selections – Page 3 of 3.

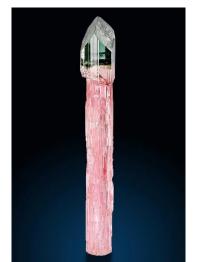
### **Augie's January 2019 Mineral Selections.** *Continued...*



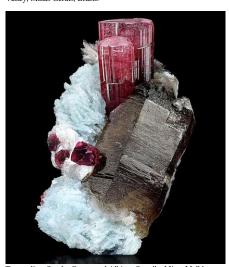
Plumbogummite after Pyromorphite - Yangshuo Mine, Guangxi Zhuang A. R., China.



Pyromorphite - Daoping Mine, Gongcheng Co., Guilin Prefecture, Guangxi Province, China.



Tourmaline - Barra de Salinas Mine, Coronel Murta, Jequitinhonha Valley, Minas Gerais, Brazil.



Tourmaline, Smoky Quartz and Albite - Sosedka Mine, Malkhan, Siberia, Russia



Vanadinite - Mibladen Mining District, Midelt, Khénifra Province, Meknès-Tafilalet Region, Morocco.



Wulfenite - Urumqi, Kuruktag Mountains, Xinjiang, China.



Wulfenite - Urumqi, Kuruktag Mountains, Xinjiang.

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#### Mel's January 2019 Facebook Sourced Mineral Selections



Terminated elbaite crystals on fluorite octahedron FROM Stak Nala, Gilgit-Baltistan, Pakistan. Source: Amazing Geologist. Photo: Wittig-Minerals.



Aquamarine, Usakos, Karibib, Erongo, Namibia. Source: Geology Page. Photo Copyright © Anton Watzi Minerals.



Azurite with Malachite, Tsumeb Mine, Otjikoto Region, Tsumeb, Namibia. Source: Geology Page. Photo Copyright © Saphira Minerals.



Tourmaline with Lepidolite, Teixerinha Mine, Itinga, Minas Gerais, Brazil. Photo Copyright © Saphira Minerals.

#### Ian's January 2019 Amethyst Quartz Collection Selections - Page 1 of 2.

Contributed by Ian Everard...

#### Ian's January 2019 Amethyst Quartz **Collection Selections**



0017 Quartz var. Amethyst, SOUTH AFRICA.



0034 Quartz var. Amethyst, Camfield Station, N. T. AUSTRALIA.



2166 Quartz var. Amethyst, Anahi Mine, Santa Cruz, BOLIVIA.







0787 Quartz var. Amethyst Sceptre, Cerro de la Concordia, Vera Cruz, MEXICO.



0869 Quartz var. Amethyst after Calcite, Artigas, URAQUAY.



2153 Quartz var. Amethyst, Chala Mine, Haskova, Oblast Province, BULGARIA.



2154 Quartz var. Amethyst, Johannesburg, SOUTH AFRICA. Continued next page...

#### Ian's January 2019 Amethyst Quartz Collection Selections - Page 2 of 2.

Ian's January 2019 Amethyst Quartz Collection Selections Continued...



2167 Quartz var. Amethyst, Vera Cruz, MEXICO.



2168 Quartz var. Amethyst, Vera Cruz, MEXICO.



0154 Quartz var. Amethyst, Rio Grande, do Sul, BRAZIL.



0734 Quartz var. Amethyst, Cerro de la Concordia, Vera Cruz, MEXICO.



0783 Quartz var. Amethyst Sceptre, Brandberg, Namibia, AFRICA



0789 Las Vigas, Vera Cruz, MEXICO.



0923 Quartz var Amethyst and Calcite, Fengjiashan Hubei, CHINA.



0012 Quartz var. Amethyst, URUGUAY



1905 Quartz var. Amethyst, Rio Grande du Sol, BRAZIL



2334 Quartz var. Amethyst and Calcite, La Sirena Mine, Guanajuato, MEXICO.



2335 Quartz var. Amethyst, La Sirena Mine, Guanajuato, MEXICO.

Contributed by Janet and Mel Jones...

#### Adelaide to Melbourne on the 'The Overland' Train

On Monday 17<sup>th</sup> of December 2018, we joined fellow train enthusiasts and train travellers on a train trip from Adelaide South Australia, to Melbourne Victoria, on the Great Southern Rail 'The Overland' train. We returned to Adelaide on the 'The Overland' train on Tuesday 18<sup>th</sup> of December, 2018.

Great Southern Rail provides a top grade, comfortable, safe and secure service.
Unfortunately, for train enthusiasts this means no open windows or doors to poke a camera out through to record parts of the journey, the train in motion, and its surroundings as they change.

Nevertheless, enthusiasts persist and take photos and videos through the double-glazed windows panels despite glass reflections, sometimes less than perfectly clean windows, and the unpredictable noises and movements of the train and its passengers.

Over the next two pages is a collection of pictures taken along the Adelaide to Melbourne leg of the trip. Also, I have edited and placed two videos of the two-way trip on YouTube...click/tap on the following hyperlinks to view the videos...

# The Overland Train A. to M. 2018-12-17 The Overland Train M. to A. 2018-12-18



Adelaide Parklands Terminal.



Carriage Badge for The Overland trainl.



Rear view of Diesel Electric Locomotive NR46 backing onto the front of the waiting carriages at the Adelaide Parklands Terminal.



Front view of Diesel Electric Locomotive NR46 backing onto the front of the waiting carriages at the Adelaide Parklands Terminal



Loading catering produce onto the Café Car.



Carriage B – Red Service Standard – seating good with plenty of leg room. It's a pity about the stage (toilet) and its curtain being at the front of everyone...it was at the back on the return trip.



Mitcham Railway Station.



NR46 starting to work a little harder.



Breakfast/morning tea is now available in the Café car.



Murray Bridge Railway Station – used to be the passenger service and cafeteria area...miss their top-notch corned beef and mustard sandwiches and hot mugs of chicory milk coffee.



Murray Bridge Station - was the goods, cases, small freight section.



Over the bridge and looking back at Murray Bridge



Morning tea is now being served...tea, coffee, or water?



Bordertown Station - now locked, boarded-up and graffitied.



Serviceton Railway Station – long-time locked-up.

Continued next page...

#### Members Out and About - Journey from Adelaide to Melbourne and return on Great Southern Rail 'Overland' train. - Page 2 of 2.

## Adelaide to Melbourne on the 'The Overland' Train – Continued...



Early lunch for some...before the crowd builds up. Plus, it is now half an hour later than before the border.



A very large, old flour mill and grain silo...Noske Flour, Nhill, Victoria. The Noske Silo at Nhill is the largest single bin silo in Australia.



Nhill Railway Station...still in service.



Current grain handling and silos at Nhill, Victoria.



Dimboola Railway Station...still in service.



'The Overland' train travels a smidgen faster than the road traffic nearby...so any attempt to chase the train to take photos/videos, as it progresses, would be difficult to achieve without risking speeding fines.



Horsham Railway Station...still in service.



Stawell Railway Station...still in service.



Ararat Railway Station...still in service.



 $\label{eq:metro} \mbox{Metro Train Melbourne} - \underline{\mbox{Siemens Nexas}} - \mbox{Electric} \\ \mbox{Multiple Unit}$ 



Metro Train Melbourne –  $\underline{X'trapolis\ 100}$  – Electric Multiple Unit.



 $Bombardier-VLine\ \underline{VLocity}-Diesel\ Multiple\ Units.$ 



VLine Sprinter Diesel Hydraulic powered railcar.



'The Overland' entering Melbourne and heading for Melbourne Southern Cross Station.







At Melbourne Southern Cross Station. Diesel-Electric Locomotive NR46 reversing back past 'The Overland' carriages.



Diesel-Electric Locomotive NR51 ready to haul 'The Overland' carriages out from Melbourne and back to Adelaide on Tuesday 18th December 2018.

Contributed by Mel Jones...

Below is an interesting outcome from an article I placed in the February 2017 TTGGMC Newsletter.

First step, the following email was received by Claudia Gill (TTGGMC Secretary) ...

Good morning Claudia,

My name is Paul Tol and I am a researcher and feature writer on our road transport history. Over the past 3 or so years I have undertaken local research on Saurer trucks here in SA, during which I discovered that one such vehicle was made into a railcar in the 1920s. As you will appreciate this pricked my interest, as the Saurer Museum in Switzerland has informed me this would be the only known such vehicle of its type.

While I have unearthed quite some information on the railcar there is one piece that has alluded me and surfing the 'net late last night I came across a copy of your club's "Rockzette" newsletter, issue February 2017, on page 9 a photo "The Saurer railcar with van in tow at Karoonda."

My question is, is it possible to get a copy of this photo from your club?

Claudia, I do hope my request can be accommodated.

Best regards, Paul Tol

Second step, Claudia contacted me. Third step, I provided Paul with the requested picture and a little background based on a photo he sent to me, which appears at the end of Paul's article.

#### Saurer A type Railcar, South Australian Railways, 1923 – 1934.

The South Australian Railways (SAR) was regarded as a leader in railcar development, beginning in 1885 when it imported three "Rowan" steam powered units from Belgium to work the Strathalbyn and Victor Harbor lines.

In 1911 an order was placed on the 'Caldwell Vale Motor Construction Co.' for a petrol driven car to work the Goolwa to Victor Harbor service, then known as the "Cockle" train it continued until 1924 when it was withdrawn from service.



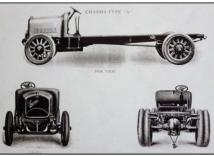
Fresh from the body builder, and standing on SAR exhibition siding in 1923, the Saurer railcar looks superb and duly commissioned ready to commence its duties. Late H.L. Kingsborough Collection SLSA.

In June 1923 the South Australian Railways (SAR) commissioned a new 35 passenger railcar into its motive power fleet, being numbered '3'. This was built on a Saurer A type truck chassis that had been converted to operate on the SAR 5' 3" broad gauge branch line network.

The Saurer in all probability been purchased from the then distributors in Adelaide, H.L. Stephenson of Pirie Street. As best that can be determined the conversion and body work may have been done by either Holden & Frost, Motor Body Builders or the SAR Workshops at Islington in Adelaide at the time.

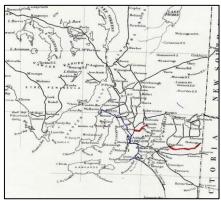
The Saurer came to Adelaide from the Saurer branch factory in Suresnes, France. As with other motor vehicle makers of the time, it would have arrived in 'chassis/cowl' form, that is minus cab and rear body, these being made locally in order to reduce import taxes. Stephenson's most likely would have purchased the Saurer through the Saurer branch office in London.

In order to operate on railways, the front axle and steering would have to be replaced with a solid axle with flanged wheels. The rear axle would need the dual wheels and tyres removed, these also replaced with suitable flanged wheels.



The Saurer A type. This is how the chassis may have looked when it arrived into Adelaide prior to being converted into a railcar. Source: Saurer A type Handbook.

The first route it was operated on was the Barossa Valley Railway line, from Gawler Central Railway Station to Truro, approximately 28 miles (45kms). The railway reached Truro in 1917 and closed in 1970. In the 2011 census Truro had a population of 395 people.



The Saurer ran on the routes marked in red, the shorter to the west is the Gawler to Truro, while the longer is the Karoonda to Peebinga line. The blue line shows the route taken in 1931 to bring two trams from Moonta to Victor Harbor.



1925, the Saurer railcar with van in tow in front of three 55 - class railcars at the Karoonda railway station. Source: "Among Ourselves", May/June edition 1983, page 7.

In 1925 the Saurer was transferred to Karoonda in the Murray-Mallee area to service the Karoonda to Peebinga line, distance of approximately 80 miles (129kms). Peebinga being close to the state border with Victoria,

the location being encouraged for cereal farming development by the South Australian Government. The railway reached Peebinga in 1911, the township beginning to be planned and laid out the following year, 1912, in 1990 the line was closed. In 2011 its population was 32 people. The Karoonda to Peebinga service was operated every second day, sometimes with a small goods van in tow to carry excess passenger baggage and/or goods and supplies for Peebinga.



Picture of Peebinga railway siding taken before the line closed in 1990. Source: Internet

Railcar services also ran daily between Karoonda, Waikerie, Loxton and Paringa, these using the 55class railcar.

In the publication, 'Among Ourselves', May/June edition 1983 on page 9 is an article titled "Recollections of an Old Railcar Driver" written by Mr. Hurtle ('Ike') Allister, 84, the last of the original railcar drivers...he said, "in the early days we had to fuel up, change the oil and grease the railcars ourselves. Mechanics were only called in if there was a mechanical breakdown."

"Railcars from Karoonda provided transportation in an area where roads and motor vehicles were virtually non-existent."

"Soil erosion and dust storms became more of a problem as farmers cleared the country, and blowing sand often built up over the rails, sometimes causing derailments. There was one instance when a driver became derailed when he drove his railcar into a bank of sand in a railway cutting during a dust storm. He had no option but to walk to the nearest farmhouse and telephone through for help. By the time he got back to the railcar sand had built up and was flowing through the windows".

The Saurer railcar also has an association with the horse drawn (tourist) trams at Victor Harbor, the trams still taking tourists across the causeway to Granite Island. Kim Bird wrote in the ARHS Bulletin Vol. 37 No. 587 September 1968 an article titled "Victor Harbor Horse Drawn Trams Return" with the following extracted, "Following the cessation of the Moonta - Moonta Bay Service in 1931, Cars No. 5 and 6 built by Duncan and Fraser in 1883, were hauled to Victor Harbor by the elderly "Saurer" Railcar to replace No.7. "

This early attempt to provide alternatives to steam passenger services proved unsuccessful. It was said of the Saurer that it looked very much like a 1920s greengrocer's van!

Continued next page...

#### General Interest – Saurer A type Railcar – Page 2 of 2.

### Saurer A type Railcar, South Australian Railways, 1923 – 1934. Continued...

In 1934 the Saurer was removed from the Karoonda to Peebinga railway with its fate unknown. Its replacement was the USA designed Brill railcars known locally as the "Barwell Bulls", these progressively introduced from 1925.

We do know that the Swiss Saurer was a truck that found a good many operators in South Australia including John Mitchell & Son, Coopers Brewery, Orlando Wines, Penfolds Wines and P.G.F. Klose during the 1920 - 1930s, some still working hard into the late 1940s. Had this reputation for hard work and reliability been a factor in it being chosen to become a railcar, a question we will never know the answer to.

What we do know, this was the only A type Saurer worldwide to be made into and operated as a railcar.



Taken in the late 1960s, a SAR Rx steam locomotive #227 with a Commer QX (R7) railcar #131 in the Karoonda rail yards. The petrol engine, Commer railcar operated the Karoonda to Peebinga service. The grain silos in the background were built in the early 1960s employing an eight-day continuous concrete pour. Source:

My appreciation to Mel Jones of the Tea Tree Gully Gem & Mineral Club Inc., for his invaluable assistance with this article.

Paul Tol

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Kanmantoo spectral analysis

Applications for brownfield copper targets.

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#### **Building Coompana**

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MESA Journal continued...

NEWS



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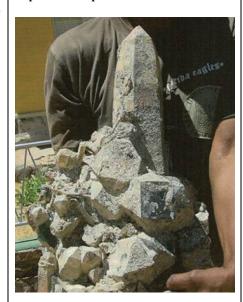


Click/tap above to download Volume 88

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Contributed by Augie Gray...

A perfect example of "Before" and "After".





This is an example of how cleaning can reveal a mineral's true potential.

It is an outstanding Fluorite on Quartz specimen named "The Eyes of Africa" and is an example from the famous Alien Eye pocket, so named for its stunning green colour zones, outlined in black colour zones. The Alien Eye pocket was a one-time find from the Erongo Mountains of Namibia.

Fluorites from the pocket are distinct in aesthetics, relatively few, and have achieved cult-collecting status in the mineral world.

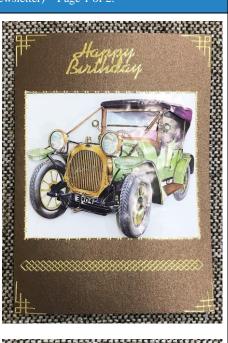
The Eyes of Africa is on display as the signature piece of the Perot Museum of Nature and Science at the Lyda Hill Gems and Minerals Hall – at almost 36" tall, it is magnificent! *Photo Credit*: Mardani Fine Minerals.

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DIY – Cardmaking – these examples were made by and contributed by Pat Mabbitt...

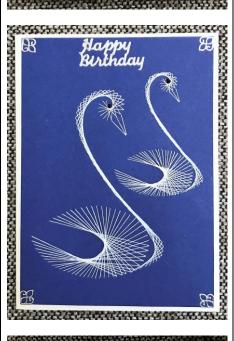


















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### Pat Mabbitt's card making examples continued...













Janet was asking Pat about 'quilling' while helping pack the cards that I had just snapped with my iPhone.



Pat setting up an example of 'diamond painting' to be snapped for inclusion in the payeletter.



An example of Pat's 'Diamond Painting'.

(Pat, My apologies for the resulting distortion of the cards' shape in the snaps. This is caused by my inability to hand-hold the iPhone squared and level with each card when snapping them...better done using a tripod for support. Nevertheless, the snaps clearly indicate the level of design, detail, and skill you put into the craft. Thanks for sharing, Regards, Mel.)

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#### What is Quilling?

**Quilling** or paper filigree is an art form that involves the use of strips of paper that are rolled, shaped, and glued together to create decorative designs.

**Quilling** starts with rolling a strip of paper into a coil and then pinching the coil into **shapes** that can be glued together.

Click/tap on the following hyperlinks for more details...

More details about Quilling.

<u>How to Make 40 Basic Quilling Shapes - Tutorial Part 1 for Beginner.</u>

How to Make Beautiful Quilling Flowers.

Butterfly Quilling Tutorial.

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#### What is 'Diamond Painting?

**Diamond Painting** is an easy and enjoyable activity for crafters young and old. Based on the same concept as mosaics and paint-by-numbers.

**Diamond Painting** uses tiny "diamond"-like facets to create colourful designs and patterns for finished designs that sparkle.

Click/tap on the following hyperlinks for more details...

<u>Diamond Painting Instructions: How to Do Diamond Painting.</u>

Top 10 Tips for Diamond Painting.

Tutorial for 5D Diamond Painting in English.

Contributed by Mel Jones...

#### 'Newcastle and Rail – The Never-ending Story' by Garry Reynolds Part 5 of 20+...



The Newcastle City waterfront today where Aborigines once fished from canoes, convicts hewed coal and a railway system developed and disappeared over a period of 160 years. Source: Familypedia.



Newcastle workmen unearthing a tramway and railway line from the 19<sup>th</sup> century. *Source*: Newcastle Live.

In October 2017, Newcastle Station's train service had been stopped in its tracks. In fact, the tracks were being ripped up and new plans for a short light rail line running mostly down the City's main thoroughfare, Hunter Street, proceeding.

Unexpectedly, in the process of digging up the bitumen to lay the track, workers came across the remains of even earlier rail infrastructure and later tram lines intersecting at a diamond crossing.



Burwood Line railway track exposed with dual diagonal tram line crossing inserts in Hunter Street. Source: Newcastle Live.

There was some hint that this area of the CBD was different in that all the streets intersecting with Hunter Street are at right angles to it – except one. The intersection with Burwood Street is on the diagonal.

Researchers discovered that this was the route of a private railway which brought coal from mines several kilometres to the South along the coast to be loaded at the Harbourside. It was called the Burwood Line and it was initiated by the Burwood Estate's landowner, Dr James Mitchell, a pioneering businessman.

# Dr James Mitchell – entrepreneur extraordinaire.

Dr Mitchell was a colourful character who was a surgeon who served in the military and rose in the Colony to positions of high status before falling foul of the authorities and the courts on several occasions. He was known as an astute land buyer and acquired grants and purchases in key parts of the Colony.

In the process, he liaised closely with the Macarthur Family who were linked to the Australian Agricultural Company. It acquired a grant of a million acres across the Colony from the British Government and a 31-year monopoly on coal production in Newcastle from 1828.

Dr Mitchell had his eye on the Hunter and the AA Company's profits and by 1849 had acquired over 1800 acres of land south of Newcastle to set up his estate.



Dr James Mitchell. Source: State Library of NSW

As an eternal optimist and entrepreneur, this wasn't Mitchell's first venture in the region. In 1838, he established a salt works at Stockton across the Harbour from the Newcastle settlement, but it soon failed.

Undeterred, between 1840 and 1843 he built a tweed factory at Stockton. After equipping it with the latest machinery from England, he leased it for a rent paid in tweed.

However, the key factor for the advancement of Newcastle's coal and rail industry was that among the workmen brought from Scotland to staff the tweed factory were the miners, James and Alexander Brown. In later years, they built the large coal-mining firm of J. & A. Brown which is now part of the Coal and Allied Industries Limited, in turn part of the massive Rio Tinto empire.

This time, James Mitchell was on a winner with the tweed enterprise. Within seven years, it was producing over 60,000 metres of cloth a

year and employing three hundred men.

Suddenly, at its peak, Mitchell's enterprise struck disaster when was It was destroyed by fire in 1851 with the good doctor losing more than £26,000

This was a lot of money to start with, but it hurt even more as it was on top of the losses he had already suffered in the collapse of the Bank of Australasia. Even worse, the Bank was an unlimited liability corporation, so shareholders like James were up for the £200,000 in liabilities it had incurred against unsaleable land assets.

But our James obviously had deep pockets, a diversified range of shares, a healthy medical practice and lots of land. He wasn't going to die wondering as he had shown he wasn't afraid to take on the British and Colonial authorities and the law if he saw a quid in it.

Dr Mitchell could see the Australian Agricultural Company (AA Co) making good money from its monopolistic coal mining venture and private railway access in Newcastle, so much so, it was frequently fighting off envious corporate challengers.

Always up to taking on the status quo, in 1835, Dr Mitchell tried to get around the AA Co's monopoly by purchasing approximately 350 hectares (later extended to about 750 hectares) of coastal land extending from the far side of Merewether Ridge to Glenrock Lagoon and named the property the Burwood Estate.

In 1842, Mitchell called in Ludwig Leichardt, who later gained fame while perishing on an ambitious exploration of Australia's north. Leichardt drew up the stratigraphy of the coastline on the Burwood Estate, in the process identifying the extent of workable coal seams.

Mitchell put tenants onto the land, including the ex-miners John and Alexander Brown, who opened a small mine. All, this of course was totally illegal, but Mitchell intuitively dared the Government and AA Co to stop him sensing some cracks behind their brave front.

Not long after, Mitchell gave the AA Co and the British and Colonial Governments an early hint of what was coming when he announced his planned commissioning of two railway tunnels, Australia's first, through the Burwood coastal bluff.

Cheekily, James Mitchell claimed the construction of the tunnels was to allow access to Burwood Beach in order to build a salt

# 'Newcastle and Rail – The Never-ending Story' Continued...

works (yes, he had already tried and failed at Stockton).

Many people rightfully suspected that his real motive was to circumvent the AA Co's monopoly on coal mining.

What really raised eyebrows was that Mitchell's tunnelling plans were revealed after he had seen Governor Gipps seeking: a repeal of "The Metallic Ores Act"; for Newcastle to be made a free port; and that he be permitted to mine and use coal from Burwood Estate as fuel for a copper smelter. Was there some secret compact?

Never one to do things by halves, Mitchell had decided with cheap coal nearby on his land, he would erect a copper smelting works, importing copper ore from South Australia and New Zealand. Repeal of "The Metallic Ores Act" would remove a duty on its import to NSW.

Although Mitchell had no legally-approved use for the coal, the tunnel project went ahead in 1846 'fortuitously' but not unexpectedly cutting a line directly into a coal seam! Up to 3,000 tons of coal was extracted but for no immediate gain as he had to send it to the Port by horse and cart.

James Mitchell just ploughed ahead. To improve methods of shipping his coal, he obtained permission from the Government in 1849 to erect a wharf and coal chutes on Crown land of all things by the Newcastle waterfront.

Under his new corporate identity, "The Newcastle Coal and Copper Company", he built four coal loading staithes just East of the AA Co's staithes. Was Mitchell really pushing his luck or was his confidence well-placed?

A full-on game of 'railway corporate chess' and behind the scenes political manoeuvring ensued.

Effectively, Dr Mitchell's aggressive tactics served as a distraction from several small illegal mines operating in the Newcastle District in defiance of the AA Co's monopoly. Reverend Lancelot Threlkeld, and William Brooks operated illegal mines at Lake Macquarie, while John Eales, John Christian and James Brown operated mines at East Maitland.

With a legal mess threatening and the Government facing extensive and costly proceedings, in 1847, it did what most governments do when averse to taking action, especially with such a well-connected company like AA Co involved with its London-based directors and shareholders – it set up an inquiry.

The NSW Legislative Council created "The Coal Inquiry" and appointed a Select Committee to investigate the matter.

Dr. Mitchell relished stepping up to give evidence, claiming that the AA Co's monopoly hindered the progress of his smelting works by preventing the use of coal mined from his land. As well, he claimed the monopoly inflated the price of coal and obstructed the development of Newcastle.

As the weight of evidence told against it with increasingly independent colonial sentiment, the AA Co could see its smooth run enabled by its high-level connections in London and the Colony coming to an end, so before the Committee's Report was tabled, the Company surrendered its coal rights to avoid public embarrassment.

Mitchell was now free to make full use of his coal in the smelting works and export both the copper and coal from the Burwood Estate with a railway.

All done – not quite.

The AA Co did not truly give up that easily. It was determined to play hard ball despite a series of mines being quickly established with the legal gates opened for the Newcastle coal industry to expand and new railways to be considered.

Dr Mitchell now faced another barrier to competition from the AA Company. He needed access to port facilities for his Burwood Estate coal.

Here was a new challenge. You see, to gain port access, James Mitchell would have to build a railway line across the AA Company's land. Surprise, surprise they refused, effectively finding another way of preserving their advantaged position in the coal market. They certainly were tough corporate types with their directors and shareholders in the high-end of London not used to losing, especially to a renegade in a distant colony fighting over territory in a former convict hellhole.

#### Check, they thought!

Not to be outdone, James Mitchell successfully lobbied the Colonial Government to pass New South Wales' first Private Act of Parliament, titled: "The Burwood and Newcastle Tramroad Act 1850". It specifically allowed Mitchell to carry coal through Australian Agricultural Company lands.

Despite the Company's outrage and protests, the Act was allowed to stand because Mitchell's works were thought to benefit the whole colony.



A map from just prior to WW1 showing: The Great Northern Line coming in from Broadmeadow (more of that in the future); the AA Company's Line and the Burwood line all converging on the Newcastle CBD and the coal loading and passenger facilities leading up to WW1. Source: Our History Exposed.

Many colonials were smirking – checkmate, mate!

Effectively, the colonists were sick of being done-over by a clique of upper-class wealthy Britons for their own ends.

In 1853, with the coal mining monopoly ended and the repeal of the "Metallic Ores Act" as promised by Governor Gipps, allowing copper to be brought into NSW duty-free, Mitchell established "The Newcastle Coal and Copper Company". It traded into the 1860s, when labour disputes and financial crises led to its dissolution and Mitchell's reacquisition of the land and the works until it closed in 1872.



A small coal train on the Burwood line after coming through a Merewether Beach wood-lined tunnel in later years. Source: ARH (NSW).

Unfortunately, after all this travail in his life, in 1865 Mitchell fell under the influence of a con man named William Ernest Wolfskehl. When Mitchell died in 1869, a will made just before his death, had Wolfskehl named as his sole executor of an estate valued at more than £100,000.

Mitchell's family contested the will on the grounds of undue influence exerted by Wolfskehl and pressed for a will made in 1841 to be upheld. Though probate was delayed, the family won the case in the Supreme Court.

It was a lively end to Dr James Mitchell's spectacular career which helped set up the future of the coal and railways systems in Newcastle.

Meanwhile, both industries had been progressing steadily since the 1830s.

Australia's first railway, running on iron rails, the original AA Co's line from the 'A' Pit on the hill above Newcastle to the loading staithes on the wharf was well-established. To help mine the coal, the Company was allowed 126 convicts, this number rose to 227 by 1837 but they lived in atrocious conditions and productivity declined.

In 1838, the Company imported 40 Welsh and 100 Irish miners. Three years later, when the number of free miners rose to 300, the convicts were withdrawn. Coal production increased from 4,000 tons in 1830, to 34,000 tons in 1842.

Production expanded with the Company's mine network expanding both in inner Newcastle and, from 1849, the suburb now known as Hamilton.

By then the stage was set for a rapid growth in coal exports from Newcastle. In 1844, the AA Company loaded 300-ton vessels in about three hours. However, the shortcomings of the port were becoming evident. Some vessels could not take full cargoes because of lack of depth

# 'Newcastle and Rail – The Never-ending Story' Continued...

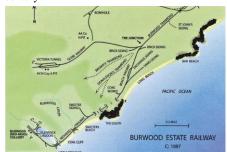
of water at the entrance to the coal channel.

Nevertheless, the economic advantage facilitated by coal mines being near the loading berths saw the concept replicated when the AA Co constructed two other gravitational railways feeding onto ships at large wooden trestle coalloading staithes.



AA Company coal loading staithes. Source. NIHA.

While the AA Company's coal operations grew, Dr. Mitchell's hard-won Burwood Line went on to see further extensions as new mines came on stream on branches well into the 20<sup>th</sup> century.



Burwood Estate train and tram roads in the 19th Century. Source: Newcastle Herald.



Burwood Colliery at Glenrock Lagoon in 1885. Source: NIHA.

Newcastle was developing into a market economy with the breaking of the AA Company monopoly. However, government investment continued with occupation of new military barracks by military detachments and the former convict lumberyard stockade reused for construction purposes on the Nobby's breakwater. The barracks complex was vacated by the Imperial military when the last convict workers left Newcastle in 1855.

All was not smooth sailing. Newcastle Harbour and the Hunter River were increasingly vulnerable to silting with the spread of settlement and land clearing. The Harbour Entrance could still be incredibly treacherous for the rapidly increasing shipping.

Government infrastructure expenditure would always be needed. Major steps by the Colonial Government saw the construction of a lighthouse on Nobbys in 1857 and ships' ballast and sand dredged and carried to reclaim foreshore shallows to build new wharves.

By the 1850s, coal was increasingly being transported by rail to loading staithes on the foreshore to the west of the town. However, smaller vessels, continued to be loaded by wheelbarrow, and in the late 1850s, larger vessels needed to be moored in deeper water, with coal again transferred via lighters.

At one stage in this period, Newcastle saw labour disappear in the gold rushes to the west over the Blue Mountains but the boom in emigration in the 1850s and 1860s, sparked a new round of coal mine development around the pit top towns of Adamstown, Hamilton, Waratah and Wallsend, inaugurated by private companies.



Queens' Wharf near the Pilot Station in the 1860s loading coal with steam cranes. Source: The Herald.

In response, Queens Wharf (later Kings Wharf), was constructed in 1858-1860 along the Southern foreshore at the Eastern end of the Harbour.

Steam cranes were introduced at this wharf. The first cranes were owned and run by the Newcastle Wallsend Coal Company. While they could be used by other companies when they were free, the cranes performed badly, and disputes over their use created conflict on the waterfront. In 1869, they were replaced by eight Government steam cranes, supplemented by the addition of four Government staithes.

These, and four more built by the State Government in 1870, were located near the present-day Queen's Wharf. It was argued that these last four staithes were needed to relieve the congestion at the original Queen's Wharf; congestion caused by the inadequacy of the stationary steam cranes.

Today, the Newcastle to Stockton ferry operates from a wharf adjacent to the present-day Queen's Wharf. It is close to where these early staithes would have been located.

As snapshots in time, to give an idea of the growth of the coal trade, in 1872 there was 566,000 tonnes of coal going through the port and the following year there were up to 70 vessels from all around the world queuing to load with coal.

There were some surprising arrangements especially in the early days. When intercolonial passenger steamers started to call at Hobart in 1837, they did not have enough coal for the return journey. Ironically, sailing ships had to carry Newcastle coal to Tasmania for the steamers to get back home.

By the 1870's, Newcastle's coal exports to Victoria reached 200,000 tons a year, a tonnage that required more than 400 ship-voyages from Newcastle to Port Phillip. The sailing ship ballast on the trip up the coast, Melbourne bluestone, was used to build an early breakwater at Stockton.

Coal exports from Newcastle received a boost in 1849 with the discovery of gold in California. It was cheaper to import Newcastle coal all the way across the Pacific than to ship it from the east coast of the US.

The trade kept building and in one day in 1896, thirty-five sailing ships set course across the Pacific from Newcastle to San Francisco.



Atop the Government staithes in the 1870s. Source: Hunter Living



'A' Pit at Merewether now covered by housing. Source: Newcastle

Amidst all this development Dr Mitchell's legacy lived on with his son-in-law E.C. Merewether continuing the Burwood Estate business

However, the coastal railway always had problems. Back in 1895, for example, October storms covered the line with an estimated 2,000 tonnes of sand. Partly cleared three months later, more bad weather undid all this.



The 'Coffee Pot' loco which ran along the Burwood Line with its vertical boiler. Source: Newcastle Herald.

Over the years the line was operated by

# 'Newcastle and Rail – The Never-ending Story' Continued...

Various companies. In the 1900s, the quaint 'Coffee Pot' locomotive, rebuilt from a Sydney tram, operated on the beach section of the Burwood Line. However, many of the mines were worked out and the trains stopped in the middle of WW2, and most of the branch lines were ripped up for valuable war time scrap.



All modes of transport meet at the intersection of the Burwood line, the Hunter Street tram and bus routes and the poor pedestrians wondering which way to look in 1940. Source: University of Newcastle

All modes of transport meet at the intersection of the Burwood line, the Hunter Street tram and bus routes and the poor pedestrians wondering which way to look in 1940. Source: University of Newcastle.



Loco 1909 struggles up along the remaining section of the Burwood Line ready for retirement as the last train from the Glebe Coal Mine runs from Merewether to the Newcastle waterfront in 1954. It crossed through what is today's Civic Park and then cut a swathe through Hunter Street making the cars wait in the heart of the City, Source: Newcastle Herald.



Burwood railway line running through the centre of Newcastle in what is now Civic Park. Source: Newcastle Herald.

In 1956, the Merewether Estate relinquished its rail rights on the Burwood Line and most of the track was lifted. Two years later, the AA Company even sold the Burwood Tramroad right-of-way over its land, which it had fought over with Dr Mitchell over 160 years earlier to Newcastle Council.

Finally, with the unearthing of the intersection of the former Burwood Rail Line and tram

track under Hunter Street, it has been decided that these heritage remnants of Newcastle's rail and coal story will be retained for use in a likely heritage interpretation project.



The last Burwood Line train to cross Newcastle's main street, Hunter Street, in 1954. *Source*: Newcastle Herald.

#### MORE NEXT MONTH

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Contributed by Michael Mabbitt...

#### Dating In 1957

It's the summer of 1957 and Harold goes to pick up his date, Peggy Sue.

Harold's a pretty hip guy with his own car and a duck tail hairdo. When he goes to the front door, Peggy Sue's mother answers and invites him in

"Peggy Sue's not ready yet, so why don't you have a seat?" she says.

That's cool. Peggy Sue's mother asks Harold what they're planning to do.

Harold replies politely that they will probably just go to the malt shop or to a drive-in movie. Peggy Sue's mother responds, "Why don't you kids go out and screw? I hear all the kids are doing it."

Naturally this comes as quite a surprise to Harold and he says, "Whaaaat?"

"Yeah," says Peggy Sue's mother, "We know Peggy Sue really likes to screw; why, she'd screw all night if we let her!"

Harold's eyes light up and he smiles from ear to ear. Immediately, he has revised the plans for the evening.

A few minutes later, Peggy Sue comes downstairs in her little poodle skirt with her saddle shoes and announces that she's ready to go.

Almost breathless with anticipation, Harold escorts his date out the front door while Mom is saying, "Have a good evening kids," with a small wink for Harold.

About 20 minutes later, a thoroughly dishevelled Peggy Sue rushes back into the house, slams the door behind her and screams at her mother:

"Dammit, Mum! The Twist! The Twist! It's called The Twist!"



Click/tap here to watch 'The Twist' - Chubby Checker

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Contributed by Doug Walker...

#### The "Chalk Guy" Is Back....











More on page 18...

Contributed by Doug Hughes...

#### **Heavenly Test**

A blonde was on her way to Heaven. Upon arrival, a concerned St Peter met her at the Pearly Gates. 'I'm sorry,' St Peter said; 'but Heaven is suffering from an overload of good souls, and we have been forced to introduce an Entrance Exam to ease the burden of new Heavenly Arrivals.' 'That's cool' said the blonde, 'What does the Entrance Exam consist of?' 'Just three questions' said St Peter. 'Which are?' asked the blonde.

'The first,' said St Peter, 'is, which two days of the week start with the letter 'T? The second is, how many seconds are there in a year? And, the third is, what was the name of the swagman in Waltzing Matilda?'

'Now,' said St Peter, 'go away and think about those questions and when I call upon you, I shall expect you to have those answers for me.

So, the blonde went away and gave those three questions some considerable thought.

The following morning, St Peter called upon the blonde and asked if she had considered the questions, to which she replied, 'I have.'

'Well then,' said St Peter, 'Which two days of the week start with the letter T?' The blonde said, 'Today and Tomorrow.' St Peter pondered this answer for some time and decided that indeed the answer can be applied to the question.

'Well then, could I have your answer to the second of the three questions?' St Peter went on, 'how many seconds in a year? The Blonde replied, 'Twelve!' 'Only twelve?' exclaimed St Peter, 'How did you arrive at that figure?' 'Easy,' said the blonde, 'there's the second of January, the second of February, right through to the second of December, giving a total of twelve seconds. St Peter looked at the blonde and said, 'I need some time to consider your answer before I can give you a decision.' And he walked away shaking his head. A short time later, St Peter returned to the Blonde. 'I'll allow the answer to stand, but you need to get the third and final question absolutely correct to be allowed into Heaven.

Now, can you tell me the answer to the name of the swagman in Waltzing Matilda?' The blonde replied; 'Of the three questions, I found this the easiest to answer.' 'Really!' exclaimed St Peter, 'and what is the answer?' 'It's Andy.' 'Andy!' exclaimed St Peter. 'Yes, Andy,' said the blonde.

This totally floored St Peter, and he paced this way and that, deliberating the answer. Finally, he could not stand the suspense any longer, and turning to the blonde, asked 'How in God's name did you arrive at THAT answer?' 'Easy' said the blonde, 'Andy sat, Andy watched, Andy waited till his billy boiled!' And, the blonde entered Heaven!

And, even worse ... you're probably now singing it to yourself!

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Contributed by Doug Hughes...



Last night, my kids and I were sitting in the living room and I said to them,

'I never want to live in a vegetative state, dependent on some machine and fluids from a bottle. If that ever happens, just pull the plug.'

They got up, unplugged the computer and threw out my wine!!

The little bastards.

Pline



Secrets to a long happy marriage



A old woman was sipping on a glass of wine, while sitting on the patio with her husband, and she says, "I love you so much, I don't know how I could ever live without you"... Her husband asks, "Is that you, or the wine talking?"... She replies, "It's me... talking to the wine."



"Each capsule contains your medication, plus a treatment for each of its side effects.



I was driving when I saw the flash of a traffic camera. I figured that my picture had been taken for exceeding the limit even though I knew that I was not speeding.

Just to be sure, I went around the block and passed the same spot, driving even more slowly, but again the camera flashed. Now I began to think that this was quite funny, so I drove even slower as I passed the area once more, but the traffic camera again flashed.

I tried a fourth and fifth time with the same results and was now laughing as the camera flashed while I rolled past at a snail's pace.

Two weeks later, I got five tickets in the mail for driving without a seat belt.

You know, you just can't fix stupid.

#### My parents had a TV like this.



I remember because I was the remote!

#### **Chicken Farm**

Farmer Jack once lived on a quiet rural highway, but as time went by, the traffic slowly built up and eventually got so heavy and so fast that his free-range chickens were being run over, at a rate of three to six a week.

So, Farmer Jack called the local police station to complain, "You've got to do something about all these people driving so fast and killing all my chickens," he said to the local police officer.

"What do you want me to do?" asked the police officer. I don't care, just do something about those crazy drivers!"

So, the next day the policeman had the council erect a sign that said: SCHOOL CROSSING.

Three days later Farmer Jack called the police officer and said, "You've still got to do something about these drivers. The school crossing sign seems to make them go even faster!"

So again, they put up a new sign: SLOW: CHILDREN AT PLAY.

That really sped them up. So, Farmer Jack called and said, "Your signs are no good. Can I put up my own sign?"

To get Farmer Jack off his back the police officer said, "Sure. Put up your own sign."

"The phone calls to the Police Station stopped, but curiosity got the better of the officer, so he called Farmer Jack, "How is the problem with the speeding drivers, did you put up your sign?

"Oh, I sure did and not one chicken has been killed." The police officer was curious and thought he'd better go out and look at the sign. He also thought the sign may be something the police could use elsewhere to slow drivers down. So, he drove out to Farmer Jack's house. His jaw dropped the moment he saw the sign..."NUDIST COLONY" 'Slow down and watch out for chicks!"

#### General Interest

Contributed by Augie Gray...

Scientifically, a raven has 17 primary wing feathers, the big ones at the end of the wing. They are called pinion feathers. A crow has 16. So, the difference between a crow and a raven is only a matter of a pinion.



Did you know that a candle's flame smells like burned nose hair?

> If a women is upset, hold her and tell her how beautiful she is. If she starts to growl, retreat to a safe distance and throw chocolatè at her.



Contributed by Doug Walker...

#### The Flag Pole

Two labourers were standing at the base of a flagpole, looking up. A woman walked by and asked what they were doing. We're supposed to find the height of the flagpole," said Bob, "But we don't have a ladder."

The woman said, "Hand me that wrench out of your toolbox." She loosened a few bolts, and then laid the pole down. She then took a tape measure from their toolbox took a measurement and announced, "Eighteen feet, six inches" and walked away.

Ray shook his head and laughed, "Well, ain't that just like a 'Miss-know-it-all woman'", he said, and then added, "We need the height and she gives us the length!"

Ray and Bob are still working for the government, but now they are politicians.



Continued from page 16...















Just AMAZING!

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#### **Canadian Billboards**





#### Members' Noticeboard

#### Sat 30th - Sun 31st March 2019 Canberra Rock Swap – ACT

8:30am to 5pm (Sat) 8:30am to 4:00pm (Sun) Wagtail Way, EPIC - Exhibition Park in Canberra, ACT.

Features: Fossickers & dealers. Crystals, minerals, rough & cut gemstones, opals, fossils, lapidary supplies, jewellery. Sieve for sapphires. Food available - No entry cost

For further information in the first instance on any of these events please contact the Club's Show Convenor, Norm Menadue on (02) 6258 6631

AA	3.5 x 3.3cmper 100	\$12.00
	Per 10 \$1.50	
Α	4cm x 4cmper100	\$13.00
	Per 10 \$1.50	
В	5cm x 5.2cmper 100	\$15.00
	Per 10 \$200	
С	6.2cm x 7.5cmper 100	\$18.00
	Per 10 \$2.50	
D	7cm x 7cmper 100	\$19.00
	Per 10 \$2.50	
E	7cm x 9.5cmper 100	\$20.00
	Per 10 \$2.50	
F	8.5cm x 9.5cmper 100	\$22.00
	Per 10 \$3.00	
G	9.5cm x 9.5cmper 100	\$23.00
	Per 10 \$3.50	
Н	13cm x 9.5cmper 100	\$25.00
	Per 10 \$4.00	
I	13cm x 12.5cmper 100	\$30.00
	Per 10 \$4.50	
Fla	t 395 x 265 x 50mm(lid & base)	\$2.50
Fla	t 398 x 290 x 98mm(lid & base)	\$4.00
	(All boxes and flats fold together, no staples requir	ed)

#### Fri 3rd - Sun 5th, May 2019, Murraylands Gem and Mineral Club Rockarama "Crystal and Craft Fair", Collier Park, Palmer, SA.

Features: Exhibits of gems, minerals, fossils, jewellery, lapidary machinery and more...most being for sale. Meals, snacks, and drinks available. Public Entry to all the weekend events is FREE. The Rockarama also includes the 2019 South Australian Metal Detecting Championships which will be held at Collier Park, Palmer, South Australia, on Sunday May 5th, 2019 (Session 1 - Morning competition 10.30am - 11.30am, Session 2 Afternoon competition 1.00pm - 2.00pm, and the competition prize presentation is at 2.45pm.). Click/tap on link...MGMC Website MGMC President (Kym): 0427 054 336



### 2019

Tuesday Faceting class resumes on 8th January Wednesday Silver class resumes on 9th January Thursday Lapidary class resumes on 10th January Club meetings resume on Thursday 7th February Friday Silver class resumes on 8th February

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#### **Useful Internet Links**

2019 Australian Gem & Mineral Calendar: Click here...

Adelaide Gem and Mineral Club: Click here...

AFLACA-GMCASA: Click here...

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Australian Federation of Lapidary and Allied Crafts Association (AFLACA): Click here...

Australian Lapidary Club Directory: Click here...

Australian Lapidary Forum: Click here... Broken Hill Mineral Club: Click here...

Enfield Gem and Mineral Club Inc: Click here...

Flinders Gem, Geology, and Mineral Club Inc: Click here...

Gem and Mineral Clubs Association of South Australia: Click here...

Lapidary World: Click here...

Metal Detectors - Garrett Australia: Click here... Metal Detectors - Miners Den Adelaide: Click here...

Metal Detectors - Adelaide Agent for Garrett Australia: Click here...

Mineralogical Society of SA Inc: Click here...

Murraylands Gem and Mineral Club Inc: Click here...

NQ Explorers: Click here... Prospecting Australia: Click here... Shell-lap Lapidary Supplies: Click here...

Southern Rockhounds: Click here...

Tea Tree Gully Gem and Mineral Club: Click here...

The Australian Mineral Collector: Click here...