





Tea Tree Gully Gem & Mineral Club Inc. (TTGGMC)
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Membership Officer: Augie Gray: 0433 571 887 Email: teatreegullygmc@gmail.com
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**April
Edition
2019**

"Rockzette" Tea Tree Gully Gem & Mineral Club News

President's Report	General Interest	Club Activities / Fees						
<p>Hi All, Less than four months to our Exhibition. Cheers, Ian.</p>	<p>Pages 7 to 9: Ian's Gemkhana and Caves Safari, VIC & NSW...</p>	<p>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.</p>						
<p>Diary Dates / Notices</p>		<p>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.</p>						
<p>Happy Birthday Members celebrating April birthdays: 10th – Pat Zoyke. 24th – Steve Wood. 17th – Trevor Jessop. 27th – Candice Bowey. 21st – Ian Everard. 29th – Gerri Cook.</p> <p>***</p> <p>NB. TTGGMC 2019 Biennial Exhibition Saturday July 20th and Sunday July 21st, 2019.</p> <p>***</p> <p>Speaker at the May 2019 Meeting Don McColl will be speaking on 'The Green Rocks from Browns'.</p> <p>***</p>	<p>Page 10: DIY – Plastic Milk Carton Projects...</p>  <p>Pages 11 to 14: Members Out and About - Claudia and Graham's Safari to North-Western Europe ...</p> 	<p>Tuesday Faceting/Cabbing Tuesdays - 10 am to 2 pm. All are welcome. Supervised by Doug Walker (7120 2221).</p> <p>Wednesday Silversmithing Wednesdays - 7 pm to 9 pm. All are welcome. Supervised by Augie Gray (8265 4815 / 0433 571 887).</p> <p>Thursday Cabbing Thursdays - 10 am to 2 pm. All are welcome. Supervised by Augie Gray (8265 4815 / 0433 571 887).</p> <p>Friday Silversmithing Fridays - 9 am to 12 noon. All are welcome. Supervised by John Hill (8251 1118).</p> <p>Faceting/Cabbing/Silversmithing Fees: A standard fee of \$3.00 per session applies – to be paid to the session supervisor.</p>						
<p>General Interest</p>	<p>Pages 2 to 4: Augie's April 2019 Agate and Mineral Selections ...</p> 	<p>Pages 15 to 18: 'Newcastle and Rail – The Never-ending Story' Part 8...</p> 						
<p>Page 5: Ian's April 2019 Collection Selections...</p>  <p>Page 6: Mineral Matters... 'Maw Sit Sit'</p> 	<p>Pages 19 to 20: Humour and Members Notice Board ...</p>  <p>***</p>	<p>Faceting/Cabbing/Silversmithing Fees: A standard fee of \$3.00 per session applies – to be paid to the session supervisor.</p> <p>In the interest of providing a safe working environment, it is necessary to ensure everyone using the workshops follow the rules set out in <i>Policy No. 1 - 20/11/2006</i>.</p> <p>It is necessary that <i>Health and Safety</i> regulations are adhered to always.</p> <p>Everyone using the workshop must ensure:</p> <ul style="list-style-type: none"> • 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. 						
<p>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.</p> <p>Club Subscriptions:</p> <table border="0"> <tr> <td>\$25.00 Family</td> <td>\$20.00 Family Pensioner</td> </tr> <tr> <td>\$15.00 Single</td> <td>\$12.50 Single Pensioner</td> </tr> <tr> <td>\$10.00 Joining Fee</td> <td></td> </tr> </table>			\$25.00 Family	\$20.00 Family Pensioner	\$15.00 Single	\$12.50 Single Pensioner	\$10.00 Joining Fee	
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\$10.00 Joining Fee								

Augie's April 2019 Agate Selections – Morocco 1.



Ahouli 1.



Ahouli 2.



Ahouli 3.



Ahouli 4.



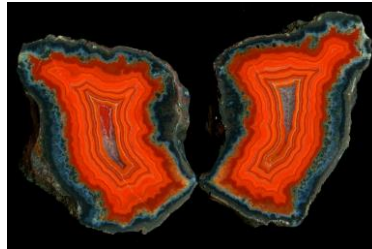
Ahouli 5.



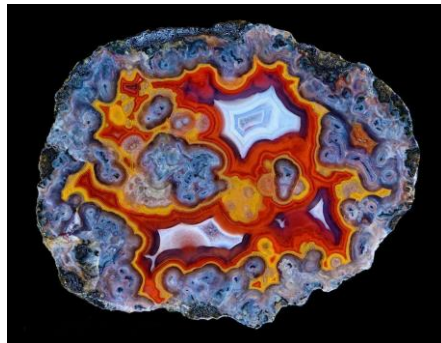
Ahouli 6.



Ahouli 7.



Ahouli 8.



Ahouli 9.



Ahouli 10.



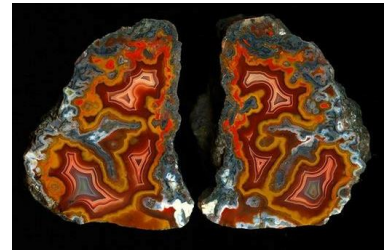
Ahouli 11.



Ahouli 12.



Ahouli 13.



Ahouli 14.



Ahouli 15.



Ahouli 16.

Augie's April 2019 Mineral Selections.



Amethyst skeletal Quartz - Brandberg Goboboseb, NAMIBIA.



Photo: <http://lucianabarbosa.com>
Dendritic Opal.



Garnet var. Spessartite - Shigar Valley, Baltistan, PAKISTAN.



Azurite with Malachite - Copper Queen mine, Bisbee, Cochise Co., ARIZONA.



Emerald, Muzo, COLOMBIA.



Malachite stalactites, Mashamba West Mine, DR Congo, ZAIRE.



Botryoidal Malachite, ZAIRE.



Fluorite.



Mimetite.



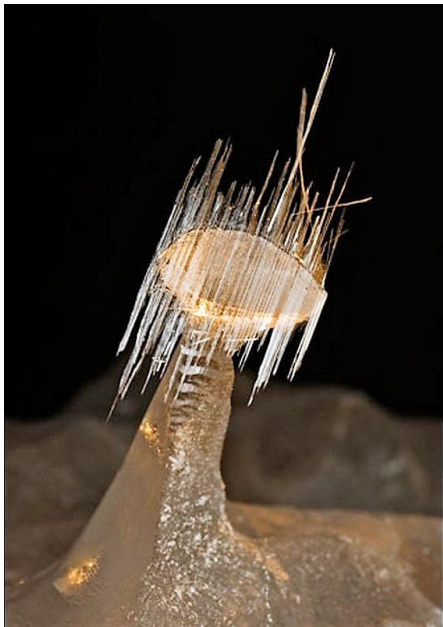
Peridot, Mandalay, MYANMAR.

Continued next page...

Augie's April 2019 Mineral Selections.
Continued...



Pyromorphite with Cerussite, Daoping Mine, CHINA.



Selenite (Gypsum), Naica Mine, Chihuahua, MEXICO.



Smoky Quartz Gwindel, Uri Mountains, SWITZERLAND.



Smoky Quartz Sceptre, Namaqualand, SOUTH AFRICA.



Tourmaline, Sapo Mine, Ferruginha, Conselheiro Pena, Doce Valley, Minas Gerais, BRAZIL.



Torbernite, Margabal, Aveyron, FRANCE.

Mel's April 2019 Facebook Sourced Mineral Selections



Bright and shiny natural Rainbow Fluorite Slab from Brazil.
Source: Amazing Geologist. Photo: Wolfroot And Bearpaw.



Spiky Heliodor crystals from Ukraine. *Source: Amazing Geologist. Photo: Golden Hour Minerals.*



Azurite with balls of green Malachite from Morenci Mine, Greenlee Co., Arizona, USA. *Source: Amazing Geologist. Photo: Wilensky Fine Minerals.*

Contributed by Ian Everard ...

Ian's April 2019 Collection Selections.



2675 Quartz and Ilvaite, Tuscany, ITALY.



2678 Realgar & Chalcopyrite on Quartz, La Palomo Mine, Huancavelica Dept, PERU.



2684 Quartz, Victoria Tower Mine, Wadnaminga, South Australia.



2685 Quartz, Victoria Tower Mine, Wadnaminga, South Australia.



2676 Chalcopyrite on Quartz, La Palomo Mine, Huancavelica Dept, PERU.



2679 Quartz on Sphalerite and Pyrrhotite, Trepcja, YUGOSLAVIA.



1416 Quartz Geode with Calcite, MEXICO.



2681 Calcite on Quartz, Bajuts, ROUMANIA.



1417 Quartz Geode with Calcite, MEXICO.



2677 Realgar & Chalcopyrite on Quartz, La Palomo Mine, Huancavelica Dept, PERU.



2682 Calcite on Quartz, Renison Bell Mine, TASMANIA.



1421 Amethyst Geode and Calcite, MEXICO.

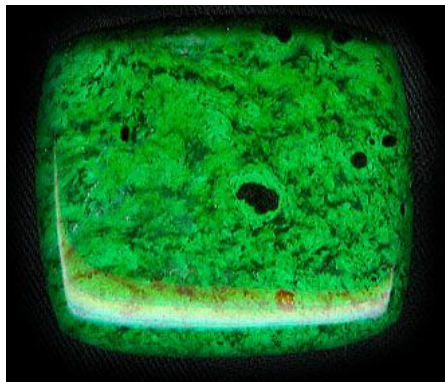
Contributed by Augie Gray...

Maw Sit Sit

It's No Joke! Yep, that's really the name of a gemstone, and an exceptionally beautiful one, at that.



One of the newer, and more unusual stones, Maw Sit Sit was first identified by the late eminent Swiss gemologist Eduard Gubelin as recently as 1963. It is named after the village where it was discovered, in Myitkyina-Mogaung District, Kachin State, northern Myanmar (Burma), in the foothills of the Himalayas. This location remains the only recorded occurrence for Maw Sit Sit.



Being in very close proximity to the Imperial Burma Jadeite mines, coupled with its rich green coloration, Maw Sit Sit was originally thought to be Jadeite, until Gubelin identified it as a separate entity.



Maw Sit Sit is sometimes referred to as a "cousin" of Jadeite, which is not inappropriate. It is, however, a rock, rather than a mineral, being an aggregate of several different minerals. Described as a chromium-rich metamorphic rock, the dominant mineral in

Maw Sit Sit is Kosmochlor, a sodium chromium pyroxene, which constitutes about 60% of the mix. The next ingredient, at around 15% is chromium-enriched Jadeite, followed by chromium Ekmannite at 4% and chromium Albite at 1%. This composition makes Maw Sit Sit the most chromium rich material on the planet. It can also contain small amounts of other minerals such as pure Chromite and Natrolite.



Maw Sit Sit is an opaque stone, consisting of a green ranging from dark emerald to almost neon in colour and rivalling that of the best Imperial Jadeite, with distinctive black splotches, swirls and veins. It is most commonly cut as cabochons, beads or carvings.



Technical Stuff

Hardness: 6-7
 Specific Gravity: 2.5 – 3.5
 Refractive Index: 1.52 – 1.74 (varies according to the exact chemical composition)
 Lustre: Vitreous to Greasy
 Crystal System: Monoclinic
 Habit: Massive
 Fracture: Irregular to conchoidal.



Expect to pay from \$2 to \$10 per carat for good quality cabochons, more for matched pairs & carvings.



FEATURES



Coompana geochemistry

New protocols accelerate greenfield acceleration.

[Read more...](#)



Geology meets art

Hill Sculpture Trail.

[Read more...](#)

NEWS



Highlights of 2018

Geological Survey of South Australia.

[Read more...](#)



Getting Lean in 2019

Lean tools to better serve you.

[Read more...](#)



Roundtable for Oil and Gas

Fostering sustainable projects in South Australia.

[Read more...](#)



Onshore oil and gas drilling

Exploration steps up in the Cooper and Eromanga basins.

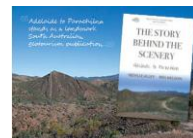
[Read more...](#)



Explorer Challenge goes live

Global innovators focus on OZ Minerals' 1 TB plus of data.

[Read more...](#)



Tracks that rock

The story behind the scenery: Adelaide to Parachilna.

[Read more...](#)



Industry news

Includes drilling on Lake Torrens breaking an 11-year on-ground exploration hiatus.

[Read more...](#)



[Read more...](#)

Contributed by Ian Everard...
Ian Everard' Gemkhana and Caves Safari, Victoria and New South Wales.
Part 1 - Victoria's 2019 Gemkhana

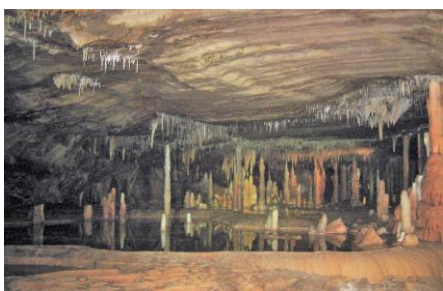


Outdoor traders 09-03-2019.



Outdoor traders 09-03-2019.

Part 2 - Buchan Caves, VICTORIA.
17-03-2019



Part 3 - Stony Creek Trestle Bridge, VICTORIA. - 17-03-2019

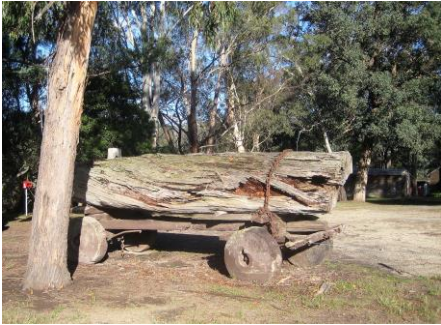


Part 4 - Yarrangobilly Caves, Kosciuszko National Park, NSW. 27-03-2019



Stationary Steam Engine, Mingling Waters Caravan Park, VIC.

Part 4 - Yarrangobilly Caves, Kosciuszko National Park, NSW. 27-03-2019: Continued...



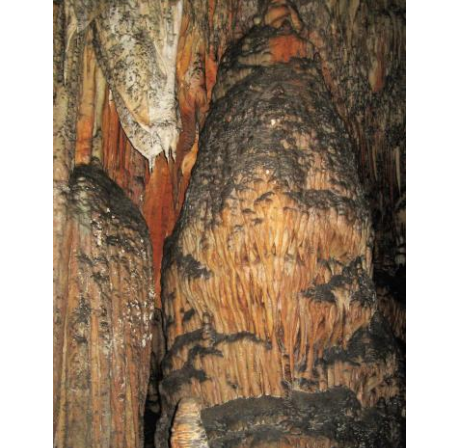
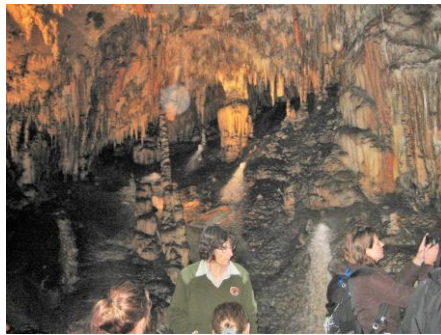
Wooden wheeled Log wagon, Mingling Waters Caravan Park, VIC.



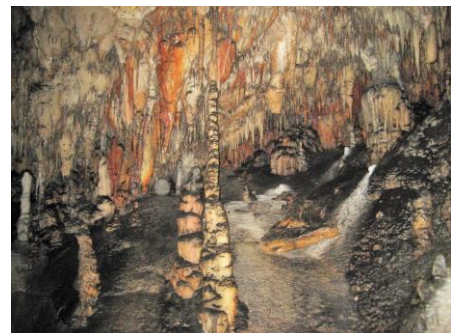
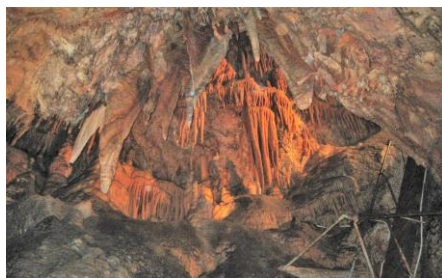
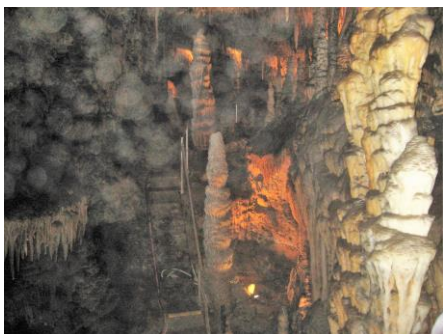
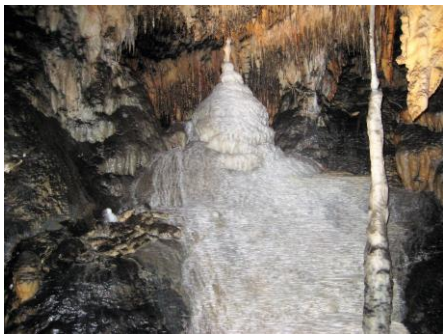
Yarrangobilly Gorge, Kosciuszko national Park, NSW.



Yarrangobilly River, Kosciuszko national Park, NSW.



Part 4 - Yarrangobilly Caves, Kosciuszko National Park, NSW. 27-03-2019: Continued...



Contributed by Janet and Mel Jones...

DIY – Plastic Milk Carton Projects

Most of this page has pictures of how we are using milk cartons. On column three we have included a link to Pinterest where there is an abundance of ideas.

Re-using plastic milk cartons in the garden can save quite a bit of money if you are keen on propagating plants to extend your garden, or for gifts to give others, or for selling on.



We save and re-use both 2 litre and 3 litre cartons. (L) side of picture is a 3-litre carton cut just below the lower ridge. (R) side of picture is a 3-litre carton cut just below the ridge under the handle. Note the drainage holes poked in with sharp pointed scissors. The remaining handle section can be used as shown in columns 2 and 3.



High-sided, 3-litre milk carton shelters for succulent propagation from source plant's leaves.



Shallow-sided, 3 litre milk carton shelter for succulent propagation from source plant's leaves.



Both 2 litre and 3 litre milk cartons, cut around just below the handle, provide a generous amount of room for potting mix to grow a reasonable sized plant to transplant to the garden or for selling on. However, be mindful that the plastic will become brittle and snap when handled after several years of use...especially if constantly kept in full sunshine.



A crate of plants containing both 2-litre and 3-litre plastic milk cartons...their square and rectangular shapes enable cramming.



A crate of plants, each planted in the top section of a 3-litre plastic milk carton. Caps have been removed and replaced with a roll of shade cloth inserted in the spout of each carton to enable drainage.



3-litre plastic milk cartons with a plastic watering spike inserted in their spouts to enable slow release of water to the plant in the half-barrel.



(top) 2-litre plastic milk carton / (bottom) 3-litre plastic milk carton ...both serve as scoops for garden use or as doggy pooper scoopers.



3-litre plastic milk carton, with holes drilled into the screw on lid, serves as a portable watering reservoir.



2-litre plastic milk carton scoop delivers gravel to the bird bath to support a planter bowl above water drainage level...facilitating better drainage for the plants.



(Front view - above) Handle-end, 3-litre plastic milk cartons, stapled together and braced with a strut, serve as an ideal home for soiled, garden shoes ... stored out of the way behind the laundry door. (Rear view – below).



Plant labels we made from plastic milk cartons. Easy to cut with scissors and write on with a Sharpie Permanent Marker. However, the print was easily removed outdoors by exposure to the weather. Any ideas to overcome this are most welcome.

Other examples of projects using plastic milk cartons can be found on Pinterest by clicking / tapping on the following hyperlink...

[Pinterest - Plastic Milk Carton Projects...](#)

Contributed by Claudia and Graham Gill...

Claudia and Graham's Safari to North-Western Europe.

Part 1

A selection of pictures taken at the National Railway Museum in York, UK.



London Brighton & South Coast Railway 0-4-2 steam locomotive, 'Gladstone', built 1882.



Queen Adelaide's Saloon, No 2 (railway carriage).



Queen Victoria's Saloon (railway carriage).



Queen Victoria's Saloon (railway carriage).



Steam locomotive, Midland Railway, 4-2-2 No 673, Midland Spinner, designed by S.W. Johnson, built at Derby in March 1897.



Built by Alstom in 1992, 3308 Eurostar class 373 power car was used on high-speed trains between the heart of London and the heart of Paris.



Electric locomotive, British Railways, Class 76 (EM1) Bo-Bo (Overhead) No. 26020, built at Gorton Works in 1951.



(foreground) Shutt End Colliery 0-4-0 "Agenoria" built 1829.- (background) LMS(R) steam locomotive 'Duchess of Hamilton' 4-6-2 Coronation class, No 6229, 1938.



Railway carriage, four wheeled, 2nd class, Bodmin & Wadebridge Railway, built in 1834. Length over buffers: 17 ft.



Steam locomotive KF class number 7, 4-8-4, Chinese Government Railways, designed by Colonel Kenneth Cantlie, built by Vulcan Foundry in 1935 (as number 607).



London & North Eastern Railway steam locomotive 'Mallard' 4-6-2 A4 Pacific Class, No 4468, 1938 (steam locomotive).



Dandy car, North British Railway, Port Carlisle Dandy Car (dark red horse drawn rail coach).



Replica of Robert Stephenson's 1829, 0-2-2, steam locomotive 'Rocket'.



Furness Railway 0-4-0 Steam Locomotive, No 3 'Coppernob', built 1846.



"Conserved but not restored" sums up this funny little Hebburn Works 0-4-0 industrial saddle tank steam engine built in 1874 by Black Hawthorn & Co. Ltd. of Gateshead.

More information about the National Railway Museum, Leeman Road, York, UK., can be found at the following hyperlink:
<https://www.railwaymuseum.org.uk/>

Claudia and Graham's Safari to North-Western Europe. Continued...

Part 2

An unexpected 'Flying Scotsman' photo-opportunity

But first, an explanation for such an opportunity, provided by an extract taken from The Yorkshire Post, Saturday, January 12th, 2019; pages 1 and 2.



Flying Scotsman passes Eggborough power station enroute to York where it helped pay tribute to Sir William McAlpine, the construction baron and railway enthusiast, who died last year at 82. Sir William helped save Flying Scotsman in 1973. *Picture: James Hardisty.*

Flying Visit

By Yorkshire Post 12 Jan 2019 DAVID BEHRENS COUNTY CORRESPONDENT

Flying Scotsman passes Eggborough power station enroute to York where it helped pay tribute to Sir William McAlpine, the construction baron and railway enthusiast, who died last year at 82. Sir William helped save Flying Scotsman in 1973

It was the memorial that he would have wanted: bolted to the side of a locomotive and flying down the East Coast main line at 110mph.

Sir William McAlpine was immortalized yesterday on the newly unveiled nameplate of one of the workhorse electric units that runs from Edinburgh, York and Leeds to London.

At its side for the ceremony at the National Railway Museum was his pride and joy, Flying Scotsman, the enduring symbol of Britain's steam age, which he purchased in 1973 and helped restore to service.

It opened its 2019 season as a heritage attraction by steaming into York Station just after lunchtime, for yesterday's event.

It had begun the day by leading a memorial trip from King's Cross to York, which organizers had termed Scotsman Salute.

The more modern Class 90 loco, bearing the new plaque, made the return journey to London.

One of a fleet of electric intercity trains made for the old British Railways in the 1980s, it now bears the livery of the publicly owned LNER railway, whose initials were previously used by the private company that commissioned Flying Scotsman at its Doncaster works in 1923.

Sir William is considered the engine's saviour, having rescued it from an American tour so financially disastrous that it was feared Scotsman would have been broken up. He sold it in the 1990s.

The locomotive, designed by Sir Nigel Gresley, was the first steam train to achieve an authenticated speed of 100mph and the first to run non-stop between Edinburgh and London.

Sir William's widow, Lady Judy McAlpine, was at the turntable in the Great Hall to watch the unveiling yesterday.

The York museum said that the juxtaposition of the original engine with the 1980s train now bearing Sir William's name had been "a unique event".



TRIBUTES ON TRACK: Lady McAlpine, widow of Sir William McAlpine, at the national Railway Museum in York in front of The Flying Scotsman bearing the name plaque of Sir William and a Class 90 electric locomotive unveiled as Sir William McAlpine.

A selection of Claudia and Graham's snaps...



York Railway Station.



York Railway Station.



LNER Class A3 60103/4472 *Flying Scotsman* is a Pacific steam locomotive built in 1923 for the London and North Eastern Railway (LNER) at Doncaster Works to a design of Sir Nigel Gresley. It was employed on long-distance express East Coast Main Line trains by the LNER and its successors, British Railways Eastern and North-Eastern Regions, notably on the London to Edinburgh *Flying Scotsman* train service after which it was named.



The Flying Scotsman set two world records for steam traction, becoming the first steam locomotive to be officially authenticated at reaching 100 miles per hour (160.9 km/h) on 30 November 1934, and then setting a record for the longest non-stop run by a steam locomotive when it ran 422 miles (679 km) on 8 August 1989 while in Australia.



NOTE: The 'Flying Scotsman', over its history has had an array of numbers...1472 (to February 1924) 4472 (February 1924 – January 1946) 502 (January–May 1946) 103 (May 1946–December 1948) 60103 (December 1948 on). It currently carries 60103 but was 4472 when in Australia in 1988/1989.

To watch VHS video footage of the 'Flying Scotsman' in Australia during 1988 and 1989 click on the following hyperlinks...

[Flying Scotsman - Train Enthusiast's Video Diary 1988-10-25](#)

[Flying Scotsman - Train Enthusiast's Video Diary 1988-10-28](#)

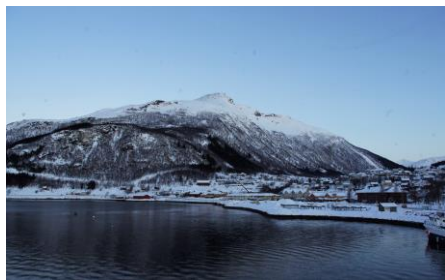
[Flying Scotsman - Train Enthusiast's Video Diary 1989-08-27](#)

Claudia and Graham's Safari to North-Western Europe. Continued...

**Part 3
Norway**



Frozen Fosen, NORWAY



View from the coastal steamer 'Nordkapp'.



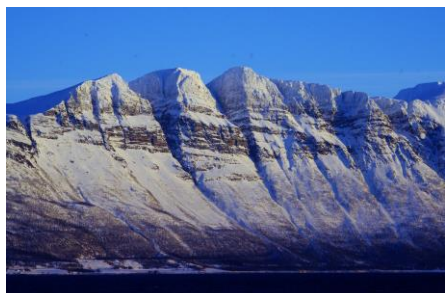
Another view from the coastal steamer 'Nordkapp'.



Town of Bodo.



Makeshift ashtray at Bodo.



Coastal view, NORWAY. Note the houses which are specks, barely visible near the water's edge.



Tromsø, NORWAY.



Ice sculptures, Tromsø, NORWAY.



Ice sculpture, Tromsø, NORWAY.



Coastal view, NORWAY



Land of the midnight sun, NORWAY.



Coach to North Cape, NORWAY...had to go in convoy behind a snow plough.



Trolls, North Cape, NORWAY.



Selfie (Claudia and Graham) North Cape, NORWAY.

**Part 4
Finland**



Dog sledding (-35 degrees), Saariselka, FINLAND.



Dog sledding...Claudia seated and Graham standing (-35degrees), Saariselka, FINLAND.

Continued next page...

Claudia and Graham's Safari to North-Western Europe. Part 4 – Finland *Continued...*



Saariselka, FINLAND.



Saariselka, FINLAND.



Cold as.



Stayed overnight in this igloo, Sinetta, FINLAND.



Angry Birds Park, Rovaniemi, FINLAND.



Frozen river, Rovaniemi, FINLAND.



View from our bus of the main street, Rovaniemi, FINLAND.



View from our train on the way to Helsinki, FINLAND.



Arrival at Helsinki, FINLAND.



Early morning, Helsinki, FINLAND.



Evening, Helsinki, FINLAND.

Synopsis of 'Our Safari to North-Western Europe' by Claudia

While Tea Tree Gully, South Australia, was sweltering with over 40+ degrees hot weather, we were in the Arctic Circle with temperatures of -26 to -35!

After exploring York and London, we flew to Bergen in Norway, where it was snowing! We boarded the coastal steamer, Nordkapp, on its northbound tour along the Norwegian coast, with stops at small villages and towns along the way. We walked into town on the longer stays or did a tour.

One was a bus tour to North Cape, the highest point in Europe. The bus, in convoy, followed a snow plough all the way through stark white country with grey skies, dark seas, and it was snowing again!

At Saariselka we had a dog sledge ride. It was thrilling racing through snow covered pine forests over frozen lakes and rivers. We saw the Northern Lights unbelievable, just magic. Our camera stopped working, so we have no photos, but we have our memories.

From Norway we made our way down Finland by bus and train all the way; such beautiful country it quite takes your breath away. The sun always just peeking over the hills, coming up at about 8 and it's dark again by 4pm. The days seemed like we were having dawn and sunset all day. We were very lucky with the weather all the way - bright clear days, and not much rain.

Helsinki was our last stop, a large busy city, and raining, turning the snow to coffee coloured slush and then to ice, making walking difficult and dangerous. And, it was bitterly cold.

Norway and Finland are both spectacularly beautiful countries, with very friendly people who all speak English, and have different food...try chocolate cheese!

We had a great holiday with many beautiful memories...would love to go back and see the countries again; when it's green though.

Cheers Claudia and Graham

Contributed by Mel Jones...

‘Newcastle and Rail – The Never-ending Story’
by Garry Reynolds
Part 8 of 24...



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*.



Sam, a pit horse at 'Stockrington No.2 Colliery', Newcastle District, in 1978. Source: *Brian Andrews*.

Pit horses and railways

Pit horses were used in combination with primitive underground and surface railways from the very early days of mining in the Newcastle District.

The use of horse power overtook human power in the form of convict labour suffering secondary punishment in the Newcastle Gaol, Stockade and the isolation of Nobbys Head. However, once transportation of England's criminals to the Colony of New South Wales was curtailed in the 1840s, animal power took over and was so successful that pit horses were used in the Newcastle Mining District well into the 20th century.



A 'Dudley Colliery' horse-drawn rail wagon in the Newcastle Mining District. Source: *John Turner*.

The secret was in the seams

In Newcastle, as the coal seams tended to be thicker than in Britain or Europe, the headway in the underground workings was generally higher. This enabled the use of larger breeds of horses rather than the smaller ponies employed overseas.

Not only were horses an integral part of the work day for mining communities in the Newcastle Mining District, they also had a role on 'days off'. Pit horses were part of regular derbies put on as entertainment in coalfields towns to raise money for worthy causes such as



Testing work for men and pit horse underground. Source: *Hidden Hamilton*.

local hospitals.

It was said, in some instances, the pit horses were so well-adapted to the routines of the men and managers that they virtually walked themselves out of the underground workings at the end of a week's work and strolled into the pit paddock to graze over the weekend.

Come Sunday afternoon, they made their way back to their underground stables ready for the Monday shift. However, these subterranean stables were challenging places for the miners as they reeked of powerful odours of ammonia from the horses' defecations in such a confined space.

Meanwhile, on the surface around Newcastle Harbour, the coal, rail and shipping industries were expanding together led by the Australian Agricultural Company in the second half of the 19th century. With the AA Co Government monopoly on the Newcastle coal fields ended, mining developed in most suburbs in Newcastle and Lake Macquarie as well as Cessnock and the areas surrounding Maitland.



Horses still had a role in the AA Company's operations, however, steam locomotives were taking on an increasing role in the 1870s around the port facilities in Newcastle. Source *Newcastle Herald*.



The original Newcastle steam tram sheds in the foreground with the railway running along the wharf feeding the ships with coal at Kings Wharf surrounded by an assortment of AA Co buildings. Source: *Newcastle Herald*.



The AA Co land near Newcastle's first steam tram depot with the Great Northern Railway running to Newcastle Railway Station and marshalling yard. This site is where the now defunct Civic Railway Station was located adjacent to Kings Wharf. Source: *Newcastle Herald*.



The AA Co's Newcastle wharves and rail sidings in 1900 with the Customs House Tower in the background. Source: *NIHA*.



The AA Co wharf with a railway-fed coal loading staithe for ships in 1897. Source: *Uni of Newcastle*.

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



The Newcastle Boat Harbour and a coal staithe for loading ships from rail coal wagons. *Source: Newcastle Historical Society.*



Newcastle Harbour in 1875 with "The Dyke" (left centre) at Carrington being built from offloaded sailing ship rock ballast from around the world and Stockton to the right with ballast grounds as well. The Great Northern Railway runs along the foreshore to Newcastle Railway Station and marshalling yard – all closed today. *Source: State Library of Victoria.*



Ships lined up discharging rock ballast at Stockton before loading coal carried by rail to the Port of Newcastle. *Source: NCC.*

From the 1870s into the early 1900s, as coal mining spread through the Newcastle and Maitland Districts, companies were particularly attracted to estuarine or Hunter delta mining because of its proximity to the Newcastle Harbour and established rail networks.



Stockton Colliery adjacent to Newcastle Harbour with Nobbys Head in the background. *Source: Flickr.*

The better-known pits were around Wickham and Carrington and Stockton on the opposite side of the Harbour to the City.



Stockton Colliery railway coal loading staithe. *Source: Flickr.*

Stockton Colliery was said to be the deepest mine in the Newcastle district, with shafts down to 600ft (183m). However, it was a dangerous colliery.

In the Newcastle Herald, Mike Scanlon reports that a disaster unfolded about 4am on December 2, 1896, when the bodies of two men were found below at the ventilation furnace. They had died probably four hours before, overcome by a thick, deadly mine gas, possibly carbon monoxide produced by a fire in abandoned workings.

Despite the gas risk, the two bodies were recovered by mine deputies while all coalmining ceased.

"The next night, after the two funerals, an exploring party of 12 men ventured underground to check on the probable fire source. Their 9.30pm departure was to allow any accumulated mine gases to disperse, after directing more air currents deep below. But poisonous gas pockets soon meant members of the investigating party starting to fall over or start running. More rescuers arrived to help, but four members of the exploring party were fatally overcome by mine gas. Six men were now gas victims.

Another rescue attempt was then made, this time led by mine deputy Robert Jury. Some of the group, after losing their direction, were also overcome by carbon monoxide fumes.

Five men had died courageously trying to save an earlier gassed mining mate, Thomas McAlpine.

One young rescuer who survived was Robert Drylie. He braved toxic gases in the old workings six times trying to help others. All bodies were recovered, the old dangerous workings bricked off and on December 5, the public funeral of eight of the 11 victims was witnessed by thousands. The eight coffins were brought across on one ferry from Stockton to Newcastle while four other ferries carried the mourners."



The crowd of mourners watches on as the caskets are carried from the ferry that crossed the Newcastle Harbour from Stockton to here at the Great Northern Railway near Newcastle Station and the steam tram tracks. *Source: Newcastle Herald.*

A massive funeral was conducted in Newcastle, while the death of the rescuers highlighted the need for special breathing equipment for rescue operations.



The surviving members of the courageous Stockton Colliery Disaster rescue team. *Source: Newcastle Herald.*

Despite this setback, by 1901, as coal mining grew, there were a staggering 58 collieries operating or being built, in the then Newcastle District. Coal loading which had commenced with convict labour back in the early 1800s on the city-side of the Harbour, continued until 1921.



Sail and steam entering Newcastle Harbour safely with Stockton Colliery in the background. *Source: Newcastle Herald.*



Departing Newcastle Harbour through the North and South breakwaters safely with the train line in the foreground to Nobbys Head, Stockton Colliery in the background and the treacherous Stockton Beach in 1906. *Source: Newcastle Herald.*

However, the mine was not the only site of disasters at Stockton on the northern entrance to Newcastle Harbour where ships running aground and breaking up became not unexpected.



The wreck of the 'Adolphe' in 1904 after it was driven up against the 'Stockton' breakwater. *Source: Twominutepostcards.*

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

More ships were driven ashore at Stockton Beach over the years, including the brand new 'MV Sygna'.



The 53,000 tonne Norwegian bulk carrier 'MV Sygna' with its spine shattered breaking up on Stockton Beach. Source: Pinterest.

In May 1974, the NSW coast was being battered by large storms which brought heavy swells off both Sydney and Newcastle. There was a massive swell of over 17 metres at the Newcastle Harbour Entrance and winds reaching 165kph.

The Norwegian bulk carrier, the 'Sygna', was on its maiden voyage and sitting 4 kilometres off the Newcastle coast waiting to load of 50,000 tonnes of coal destined for Europe. When the Bureau of Meteorology issued a severe storm warning and directive for ships to move out to sea, seven of the ten ships anchored off Newcastle did so, but the 'Sygna' was not one of them.

The ship's captain eventually issued orders to set sail, but it was too late. Even with its engines at full ahead the 'Sygna' was unable to make any headway and the storm turned it parallel to the shore. Within 30 minutes it had run aground on Stockton Beach.

With heavy seas pounding the stricken ship, its captain radioed a Mayday and gave the order to abandon ship. An Iroquois helicopter from RAAF Williamstown's Search and Rescue Squadron steadily rescued the 31 trapped sailors from the ship in near cyclone conditions but it was destined to end up a wreck with the remnants still sitting on Stockton Beach as a warning to others.

John 'Baron' Brown

A major contributor to the growth of the coal and rail industry in the Hunter was John 'Baron' Brown, 'The King of Coal' born in Newcastle in 1850. He was the son of James Brown, who with his brother Alexander established the firm of J&A Brown which took on and shattered the Government imposed monopoly of the Australian Agricultural Company in the Newcastle coal industry in the late 1840s.

The Brown brothers established the Richmond Vale Railway in 1857 when the first section was opened from Hexham, on the banks of the Hunter River, to Minmi near the Sugarloaf Range, about 9 kms. At Hexham, the railway crossed the then Hunter River Railway Company's line to Maitland (the current Main North line) and several coal loading staithes were built on the bank of the Hunter River.



Part of J&A Brown's wharfrage at Hexham in 1897. Brown's ships made their way up the Hunter to this point to be loaded with coal carried on Brown's private railways from their mines. Source: Newcastle Herald.

John Brown worked his way up through the J&A Brown empire and began traveling overseas to research new mining techniques. In 1874, in what is now recognised as one of the most underrated events in Australian history, Brown secured agreements with London shipping companies to establish extensive trade between Newcastle and London.

In a stroke of the pen, Newcastle, the once convict hell hole for some of London's criminals, became the major supply point for the Pacific shipping routes of British steamships which dominated world trade.

The outcome was that Newcastle became the heavy industry, fuel, engineering and resource processing engine-room of the Australian economy and developed an extensive coal-rail network to support it right up to today.



The primitive J&A Brown 10 tonne non-air braked railway coal hopper. Source: The Shed Rat.

In 1882, John Brown became the general manager of the J&A Brown. Instead of relying on other companies to load and ship the Company's coal, he tried to make J&A Brown as self-sufficient as possible in a vertically-integrated firm.

The 'Baron' purchased wharves, collieries, tugs, trains, rail-lines and ship loading equipment. He expanded the company's export business by marketing the coal overseas at cheap prices.

J&A Brown was innovative in being the first to introduce breathing apparatus into Australian mines, along with supplying electricity into mines and surrounding communities, including building its own power station.

John Brown was a classic entrepreneurial capitalist who for several years participated in what was called 'The Vend'. This was a cartel of Newcastle District coal mining companies who regulated prices and shared the trade – eliminating competition between themselves



J&A Brown's Richmond Main Colliery's remaining Administration Building. Source: Panoramio.

and holding buyers to ransom.

However, after several years, 'Baron' Brown left The Vend in 1890. Now, free to reduce prices and with no shareholders to satisfy as he owned J&A Brown, the 'Baron' embarked on a period of trade expansion which contributed to the collapse of The Vend and exacerbated the wider depression in the Newcastle District. John Brown was about seizing power and unapologetically exercising it to the 'nth degree'.



J&A Brown Tank Locomotive No 9 2-8-2T. Source: Weston Langford.

Still, 'Baron' Brown didn't put all his eggs into one basket. Aside from investing in the latest mining plant, coal-carrying rolling stock, port facilities and engineering works, his company diversified geographically.

Brown ended up controlling two-thirds of marine towing in Sydney Harbour, undertook ocean salvage off Sydney and Newcastle, and monopolised the Newcastle port piloting system until the Government took it over. He also had a fleet of tugs operating in Sydney and Newcastle.



A J&A Brown Richmond Vale 2-8-0 ex-ROD British locomotives hauling a line of wooden coal wagons. Source: Wikipedia.

Along his classic capitalist pathway, the 'Baron' was known for his severe attitude to and treatment of his employees, always opposing the unions, and not giving-in to strikes. He refused to sell his employees the land they lived on, so he could threaten them with eviction if they were to strike.

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

He often quarrelled with the Colliery Employees' Federation, eventually suing them for loss of trade. However, despite much industrial ill-will, the newspaper "The Australian Worker" admitted that on infrequent occasions, Brown was comparatively generous to his employees.

John Brown was also an accomplished equine-breeder, owning over 500 horses, many of which were fine race-winning thoroughbreds he had brought back from his overseas trips.



J&A Brown's Richmond Main Colliery. Source: Flickrriver.

In 1904, John Brown, who had taken over complete control of the J. & A. Brown Company, started a branch line from the initial section through the Sugarloaf Range to Richmond Main Colliery and Pelaw Main Colliery near Kurri Kurri - a distance of 35kms.

A large locomotive shed was constructed at Pelaw Main with a major repair shop at Hexham. Richmond Main Colliery was John "Baron" Brown's pride and joy, once possessing the largest vertical shaft in the Southern Hemisphere.



J&A Brown's Pelaw Main Colliery Locomotive Shed featuring several ex-WWI ROD locomotives from the Western Front secured in a post-war deal by John Brown with the British Government. Source: Flickrriver.

At its peak, the Mine employed over 1,200 men and boys, with a stable of over 200 pit horses. By the 1920's it was the most modern mine in the nation.

In 1926, Richmond Main Colliery set a world record for coal production in a vertical shaft mine (which still stands today) with 3,482 tons wound up a single shaft in one 8-hour shift.

However, the economic collapse of 1929 and the following Great Depression marked the start of the decline for Richmond Main Colliery.

The following year, John Brown died of a heart-attack. A divisive man in life, he had the same effect in death. His funeral was a huge affair, although many who attended came to see a 'show', and it was reported to be a

disrespectful crowd, with plenty glad to see him gone.

Coal, shipping and rail

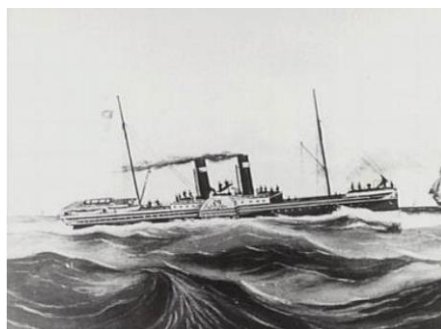
While John 'Baron' Brown was strutting the local, national and international stage building his empire, there was an intimate connection between shipping, coal and rail, especially as steam ships took a growing share of the traffic.

Back in 1875, a meeting of Newcastle businessmen formed the Newcastle Steamship Company, with the idea of undermining the established Maitland – Morpeth commercial shipping groups up the Hunter River. The Newcastle businessmen resented the Hunter River groups' priority and their influence in focusing government dredging on the River's channels rather than the Port of Newcastle.



A steam dredge deepening Newcastle Harbour channels in 1902. Source: Newcastle Herald.

The new company's ship - 'Kembla' - set the cat amongst the pigeons by covering the 100kms between Sydney and Newcastle in four and a half hours on her maiden voyage, a very competitive achievement.



The steamship the "Kembla". Source: Pittwateronline.

Confronted by such opposition, other companies slashed freight and passenger fares, with one shipping company abandoning its route to Morpeth. These tactics failed to hinder the success of the Newcastle Company and a profit of 30% was announced at its first annual meeting. In 1879, it was able to buy from Australian Steam Navigation Company, its Hunter River trade, and the entire fleet engaged in it, with 'Baron' Brown the major investor.

However, change was in the air, the days of the river paddle steamers were coming to an end with the advent of the propeller-driven ships. Technology was advancing on several fronts, with the coastal railway system advancing toward Sydney.



The Age of Steam - train leaving Newcastle Station for the suburb of Belmont paralleled by a lengthy Newcastle steam tram. Source: Uni Newcastle.

More Next Month...

Contributed by Augie...

At a recent job interview I was asked if I could perform under pressure.

I said I didn't know that one but I could have a fair crack at Bohemian Rhapsody..

Why do the French eat snails? They don't like fast food.

Bike still for sale?
8:45 AM

Yes it is.
9:24 AM

What's the lowest you'll go on it?
9:59 AM

2 mph. Anything less than that and you'll tip over.
10:03 AM

A British Bee 

A US Bee 

Contributed by Doug Walker...



Mobility Scooter

An old man from Barnsley sadly lost his wife. He contacted the Barnsley Chronicle to arrange an obituary.

The couple had been happily married for fifty years before she passed away.

The old man went to the newspaper office to make the arrangements. When informed of the cost, the man uttered, in true Yorkshire fashion, "Ow Much?".

"Ah want summat simple" he explained, "My Gladys were a gud 'arted an', 'ard-workin' Yorkshire lass but she wunt av wanted owt swanky".

"Perhaps a small poem", suggested the woman at the desk.

"Nay", he said, "she wunt av wanted owt la-di-da. Just put 'Gladys Braithwaite died.'"

"You need to say when", he was told by the receptionist.

"Do I? Well, put died 17th March. That'll do."

"It is usual for the bereaved to add some meaningful phrase about the dearly departed."

The man considered for a moment. "Well, put in, 'Sadly missed'. That'll do", he said.

"You can have another four words", the woman explained.

"No, no", he said, "she wouldn't av wanted me to splash out".

"The words are included in the standard price", the woman informed him.

"Ah they? Tha means av paid for 'em?"

"Yes, indeed sir".

"Well, if av paid for 'em, am 'avin 'em".

The obituary was duly printed as follows: Gladys Braithwaite died, 17th March. Sadly missed. Mobility scooter for sale.

A Romantic Text Message

An elderly couple learned to send text messages on their mobile phones.

The wife, a retired college English instructor with emphasis on the Classics, was an unapologetic romantic; her husband, a retired Navy chief petty officer of thirty years' service, was a no-nonsense guy.

One afternoon the wife went to the local Starbuck's to meet a friend for coffee. While awaiting her friend's arrival, she exercised her new skill by sending her husband a romantic text message:

"If you are sleeping, send me your dreams

If you are laughing, send me your smile.

If you are eating, send me a bite.

If you are drinking, send me a sip.

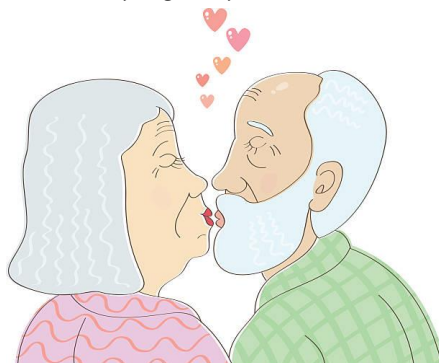
If you are crying, send me your tears.

I love you."

The husband responded:

"I'm takin' a crap. Please advise!"

Contributed by Augie Gray...



Lovemaking Tips for Seniors

1. Wear your glasses to make sure your partner is actually in the bed.
2. Set timer for 3 minutes, in case you doze off in the middle.
3. Set the mood with lighting. (Turn them ALL OFF!).
4. Make sure you put 000 on your speed dial before you begin.
5. Write partner's name on your hand in case you can't remember.
6. Use extra polygrip so your teeth don't end up under the bed.
7. Have Tylenol ready in case you actually complete the act.
8. Make all the noise you want.... the neighbours are deaf, too.
9. If it works, call everyone you know with the good news!!
10. Don't even think about trying it twice.

Old is When...

Your sweetie says, 'Let's go upstairs and make love,' and you answer, 'Pick one; I can't do both!'

Your friends compliment you on your new alligator shoes and you're barefoot.

Going bra-less pulls all the wrinkles out of your face.

You don't care where your spouse goes, just as long as you don't have to go along.

You are cautioned to slow down by the doctor instead of by the police.

'Getting a little action' means you don't need to take a laxative today.

'Getting lucky' means you find your car in the parking lot.

An 'all-nighter' means not getting up to use the bathroom.

You're not sure if these are facts or jokes.

(This in large type so you can read it)

Contributed by Augie Gray...

Home Depot Releases New Bluetooth Cordless Hose



You can find this product in the blinker fluid aisle...

Contributed by Doug Walker...



The Honeymoon Pants...

Mike was going to be married to Jane, so his father sat him down for a little chat. He said, 'Mike, let me tell you something. On my wedding night in our honeymoon suite, I took off my pants, handed them to your mother, and said, 'Here, try these on!'' She did and said, '**These are too big, I can't wear them.**' I replied, '**Exactly, I wear the pants in this family and I always will.**' Ever since that night we have never had any problems.'

'Hmmm,' said Mike. He thought that might be a good thing to try on his honeymoon, so Mike took off his pants and said to Jane, 'Here try these on.' She tried them on and said, 'These are too large, they don't fit me.' Mike said, 'Exactly, I wear the pants in this family, and I always will. I don't want you to ever forget that'.

Then Jane took off her pants and handed them to Mike. She said, 'Here, you try on mine.' He did and said, '**I can't get into your pants.**'

Jane said, 'Exactly. **And, if you don't change your smart-ass attitude, you never will.**'

And, they lived happily ever after!

Members' Noticeboard

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

For Sale



1 Gemmaster 8-inch double ended grinder,
with many accessories including, but not limited to,
2x 6-inch diamond wheels
many polishing discs
drum sander and discs
a selection of unused belts and discs
grit
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diamond dresser
cutting rough
lapping glass
and more
\$750

Contact Granton Edwards

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Tea Tree Gully Gem and Mineral Club Inc.

2019

Biennial Exhibition

Tea Tree Gully Primary School Memorial Drive, Tea Tree Gully Saturday 29th July - 9am to 5pm
Sunday 31st July - 10am to 4pm


Demonstrations
Bone Carving
Gemstone Identification
Light Meals and Refreshments
Raffle

Sales
Hand Crafted Jewellery
Mineral Specimens
Fossils
Gemstone Rough
Cut and Polished Gems
Tools and Equipment
Books

Admission Prices
All entry - \$5.00
Children under 12 with an Adult are Free

For more information contact:
Ian Everard 0417 859 443

PLEASE NOTE: To preserve the floor, NO STILETTOS or STUDDED FOOTWEAR.

Mineral Boxes and Flats Price List

(Prices may be subject to increase, due to the price of cardboard)

AA	3.5 x 3.3cm.....	per 100		\$12.00
			Per 10	\$1.50
A	4cm x 4cm.....	per 100		\$13.00
			Per 10	\$1.50
B	5cm x 5.2cm.....	per 100		\$15.00
			Per 10	\$2.00
C	6.2cm x 7.5cm.....	per 100		\$18.00
			Per 10	\$2.50
D	7cm x 7cm.....	per 100		\$19.00
			Per 10	\$2.50
E	7cm x 9.5cm.....	per 100		\$20.00
			Per 10	\$2.50
F	8.5cm x 9.5cm.....	per 100		\$22.00
			Per 10	\$3.00
G	9.5cm x 9.5cm.....	per 100		\$23.00
			Per 10	\$3.50
H	13cm x 9.5cm.....	per 100		\$25.00
			Per 10	\$4.00
I	13cm x 12.5cm.....	per 100		\$30.00
			Per 10	\$4.50
Flat	395 x 265 x 50mm.....	(lid & base)		\$2.50
Flat	398 x 290 x 98mm.....	(lid & base)		\$4.00

(All boxes and flats fold together, no staples required)

Greg Vort-Ronald 0413796279
Email lurv2paint@iprimus.com.au

Useful Internet Links

- 2019 Australian Gem & Mineral Calendar: [Click here...](#)
- Adelaide Gem and Mineral Club: [Click here...](#)
- AFLACA-GMCASA: [Click here...](#)
- 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...](#)
- Mineralogical Society of SA Inc: [Click here...](#)
- Murraylands Gem and Mineral Club Inc: [Click here...](#)
- NQ Explorers: [Click here...](#)
- Prospecting Australia: [Click here...](#)
- Southern Rockhounds: [Click here...](#)
- Tea Tree Gully Gem and Mineral Club: [Click here...](#)
- The Australian Mineral Collector: [Click here...](#)

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