

GEMBOREE 2017

INFORMATION E-NEWSLETTER

July 2016 – Edition 4

Tony Luchetti Showground, Lithgow – Easter – 14th – 17th April, 2017

FROM THE E-NEWSLETTER EDITOR

Lithgow is steeped in history and surrounded in beauty, with a friendly and growing community that will be hosting the 53rd National Gem & Mineral Show that will be held from Friday 14th to Monday 17th April, next year. The GEMBOREE 2017 will be held at the Tony Luchetti Showground in Lithgow.

As time moves on, with just nine months to go, more plans are coming together for the event that will draw a large crowd of lapidaries, collectors and hobbyists, as well as the general public from throughout the region.

There is a great deal of history and tradition behind the GEMBOREE in Australia which is the largest event of its type and is held annually. It is a national event that is staged by the Gem & Lapidary Council of N.S.W. Inc. under the auspices of the Australian Federation of Lapidary & Allied Crafts Association Inc.

The small town of Coonabarabran near the Warrumbungle Ranges in New South Wales has the honour of conducting the first GEMBOREE in 1965. It came about after some suggestions were made to the editor of Australian Lapidary Magazine, Mr. Norm Patison. Norm had the vision and organised the GEMBOREE which has sustained every year since as the national gathering of lapidaries. There were only a few lapidary clubs at that time and there was little thought about interaction and communication.

The GEMBOREE was held the following year, again at Coonabarabran, with even greater success and again it was organised by Norm. Norm then laid down a challenge “for any, one, two or three clubs to host the following year’s GEMBOREE”. Three Sydney Clubs took up the challenge with the 1967 GEMBOREE held at Nundle in northern N.S.W. Then in 1968 it was organised by four clubs at Gundagai on the Murrumbidgee River, in the south of N.S.W. Its future appeared set.

The newly formed Combined Victorian Gem Clubs Association decided to start a Gemkhana to bring their state members together in 1968. It was held in March to avoid clashing with the Gundagai GEMBOREE.

Buoyed with the success of their Gymkhana the Victorian Association sought permission to conduct the 1969 GEMBOREE. One of their objects was to seek that the GEMBOREE should be held in a different state or territory of Australia each year.

With the support of the Australian Lapidary Magazine and previous organisers the first GEMBOREE held outside N.S.W. was organised at Beechworth in northern Victoria. The result was the largest gathering of lapidaries and the general public witnessed to that time.

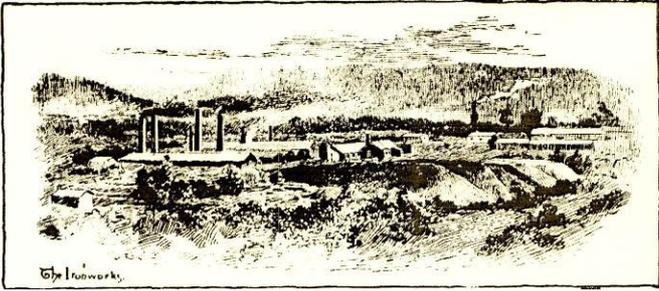
Since 1969, the GEMBOREE has been staged in all of Australia’s states and territories. 1972 was the first year for South Australia, and Queensland’s first was in 1974. 1980 was the debut for Western Australia, and Tasmania hosted their first event in 1981. In 1988, the GEMBOREE was staged in Canberra and in 1993 it was held in the Northern Territory at Alice Springs. Sadly, due to Western Australia’s very small lapidary population combined with distance forced Western Australia to withdraw as a GEMBOREE host - at least for the time being.

Norm Patison lived to see the GEMBOREE become a truly national event, and his name is commemorated on a perpetual trophy at the National Gem & Mineral competitions held in conjunction with each GEMBOREE.

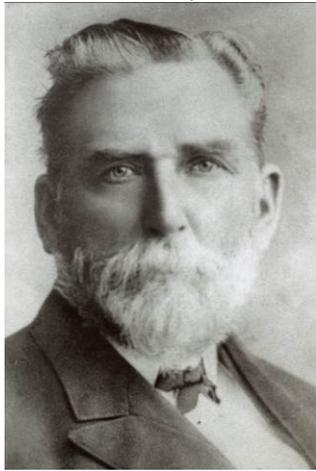
From the following list one can see the various towns and cities that have hosted the annual GEMBOREES. These include:- 1968 Gundagai, 1969 Beechworth, 1970 Nundle, 1971 Coleraine, 1972 Tanunda, 1973 Inverell, 1974 Nambour, 1975 Broken Hill, 1976 Gunnedah, 1977 Shepparton, 1978 Gympie, 1979 Tanunda, 1980 Wanneroo, 1981 Devonport, 1982 Glen Innes, 1983 Broken Hill, 1984 Mount Isa, 1985 Wanneroo, 1986 Loxton, 1987 Shepparton, 1988 Canberra, 1989 Devonport, 1990 Bundaberg, 1991 Loxton, 1992 Midland, 1993 Alice Springs, 1994 Ballarat, 1995 Glen Innes, 1996 Toowoomba, 1997 Launceston, 1998 Gawler, 1999 Rockingham, 2000 Ballarat, 2001 Wagga Wagga, 2002 Rockhampton,

LITHGOW STEEL WORKS

Lithgow's association with its iron and steel works was another of this city's big manufacturing eras. Lithgow's Iron and Steel works commenced in October 1875 when the first iron smelting took place.



Ore had been discovered on Eskbank land which was then owned by Enoch Hughes. The foundry was erected nearby after Enoch convinced James



Rutherford of Cobb & Co fame (left) from Bathurst. Ironically the other principal shareholders were the N.S.W. Minister for Public Works, the Honourable John Sutherland and Dan Williams, an engineer from Canada who worked on the Zig Zag railway project.

The Eskbank Ironworks then consisted of a blast furnace, foundry and two bar rolling mills with the necessary fitting and smiths' shops. About 20,000 tons of pig iron was made initially from the local ores, which was converted into rails and bars. Work was carried on intermittently, until it was decided to pull down the blast furnace and convert the castings into merchant iron.

In May 1880 in the "Lithgow Report" it stated that the Eskbank Ironworks were working at the rate of four miles of rails per week. The new rails stood the test of forty tons, the required standard being thirty tons. The blast furnace was in full swing and 100 tons per week of iron was anticipated.

After a layoff the mills at the Eskbank Ironworks were restarted on Monday morning 30th July, 1894. The old system had been discarded, and the mills had now commenced on a partially co-operative principle, which it was expected would cheapen production and give better results generally. During the cessation of work the plant was added to and improved, in this way the sheet mill now starts equipped to produce nearly double its former product.

A week or so previously it was reported that no work had been done either in the sheet or bar mills at Eskbank ironworks but it is expected that a start would

be made the following Monday in all three. An order for 100 tons of spike iron, was to be supplied at the rate of 10 tons weekly, having been obtained from the Railway Commissioners. During the period of stoppage considerable alterations and improvements have been made at the works. A large pair of housings (15 tons) had been put in the sheet mill train. This and other improvements would enable the output to be considerably increased, if necessary, and would also permit taking orders for larger plates for boilers or tanks. Under the new arrangement, with Messrs. Milier, Turley and Bladen, Mr. Sandford anticipated better results, and is hopeful that they would be able to run three or four days a week at least.

The company soon found themselves with an overdraft of about £60,000, and had decided on closing the works when Mr. Sandford took them on lease in 1885. He added mill after mill, with powerful shears, furnaces, boilers, and rollers, so that now the mills were fully equipped for the work they had to do. The output of the works of all classes of finished iron and steel for the three years ending 31st December, 1901, averaged over 7000 tons per annum. The output did not cover more than a small percentage of what was imported into Sydney.

The works and sidings occupied a space of about 12 acres, and were situated between the Main Western Railway Line and Farmer's Creek, being connected with the main line at Eskbank Station, with sidings all round the works. Sand for the works was obtained from Farmer's Creek, close by, and the loam for the foundry from a paddock adjoining the works.



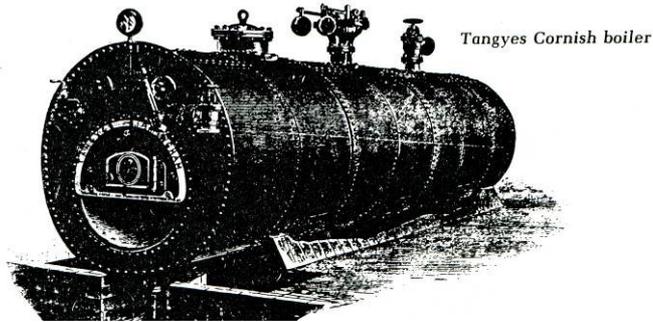
Within the ironwork's fence is a colliery adit, where the coal, (left), was drawn out by an engine, and the same skips drawn round the works, so that the coal was only handled once, into the skips; and the same skips were tipped into the furnace bins in the ironworks. The coal was thus used fresh from the colliery, and bore

comparison in heating properties with most of the English coals. On the siding to the works was situated the steam sawmills, where timber of any ordinary size could be cut and delivered to the works.

The large 18 inch bar mill was driven by a powerful horizontal engine of 65-horse power, with a flywheel of about 20 tons on main shaft. Three sets of rolls were for train tracks with heavy standards. It is driven off the main engine shaft. There are two sets of massive shears for cutting the bars cold, which are made in the mill to the lengths wanted. This mill was capable of rolling flat bars up to 12in wide. Some thousands of tons of iron rails, 70lb to the yard, have been rolled in

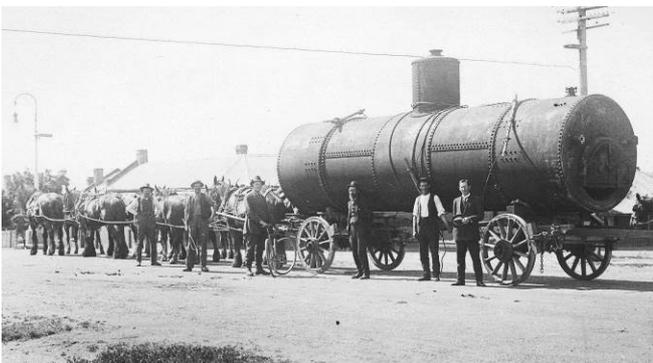
the Lithgow Works.

At the time Mr. Sandford said: "When I took the works nothing wider than 6in wide flat bars were made. Now we make when required 6½in, 6¾in, 7in, 7½in, 8in, 9in, 10in, and 12in flat bars. To heat the iron for this mill four large furnaces are used, each capable of heating from five to six tons of iron per shift. Attached to the various furnaces are large horizontal boilers for raising steam by the waste-heat from the furnaces." At this time the Steel Furnace was idle.



There was a great deal of equipment on site including immense Cornish boilers, seen above, weighing 22 tons for raising steam by the waste heat from the furnaces. There was a 1½-ton steam hammer, massive shears for cutting up double-head 75lb per yard rails into lengths, a large gantry, a 36in horizontal condensing 175-horse power engine and giant flywheels with a 30ft diameter and weighing 40 tons.

The No. 2 Sheet Mill had a 35-ton flywheel and had been finished about six months, but had only been running half-time. In the fitting shops were lathes, screwing, drilling and punching machines, nut and bolt machines, and a complete spike making machine, where the spikes for the Railway Construction Department had been made during the previous three years.



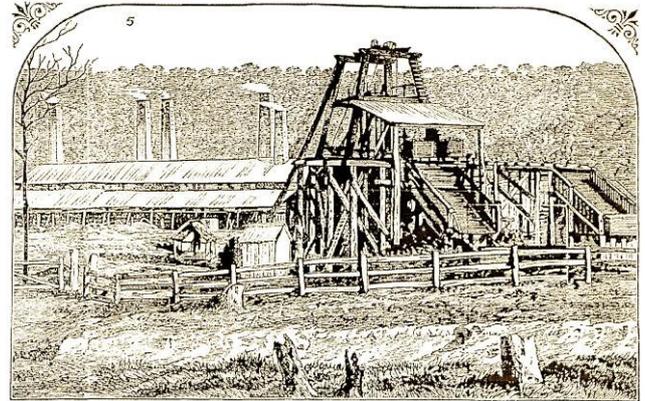
Above, boilers were large items of necessary equipment, their sheer size made them difficult to transport.

Passing out to the foundry department, where there were two large travelling cranes, a large and small cupola, also an air furnace. Castings up to 11½ tons weight had recently been turned out at the foundry.

There was also a large Siemens melting furnace, for dealing with steel, scrap and pig iron. It was complete

with a steam travelling crane capable of lifting seven ton cast iron moulds and large wrought iron ladles. It had been erected at a cost of £4000. The cement used in the works was mostly made at the Cullen Bullen Company's lime and cement works, about ten miles distant from Lithgow.

There was another mill principally for rolling sheets for galvanising and corrugating sheets up to 12ft long and 27 gauge were produced in this mill. The justification for initially erecting the mill at Lithgow was the probability of a duty on galvanised iron of 30 shilling per ton, as proposed by the Federal Ministry. The implemented duty of 15s per ton, or about 5 per cent., was not enough, and the machinery mainly remained underused.



Above, the nearby Lithgow Eskbank Colliery & Mr. Lloyd's Smelting Works.

Finally the steel works were taken over and reopened by an Englishman named William Sandford who had been appointed as the blast furnace manager of the Lithgow Iron & Steel Works from 1907 until 1921. He convinced the Government of New South Wales in 1907 to accept his steel proposal and contract. Shortly after though the purchasing of an improved blast furnace left him in financial strife and the works were taken over by two brothers, George and Cecil Hoskins, the next year. They relocated their works to Lithgow to meet the greater production.

As time went on it became a rocky road for the Lithgow Iron and Steel Works with lack of sales and labour problems with strikes which were reported in the newspapers of the time. In one report:- "As was feared, the trouble in regard to Sunday overtime at Hoskins' steel works resulted in the dismissal of two men, and has extended to the whole works." On Thursday morning, 10th April, 1924, "none of the members of the Ironworkers' Union, numbering about 430, put in an appearance. All the ironworking departments are idle, as well as others, where through the ironworkers' action there is automatically no work."

"Moulders, engineers, carpenters, blacksmiths, etc., worked on Thursday, but meetings to consider their position were to be held at night. Two collieries are

GERMAN SILVER

Silver has been one of those precious metals that has been sought after since its mining commenced around 3,000 B.C. in an area that would be found in Turkey these days. It was traded throughout the Near East and to Greece. The Romans also used silver for their coinage, parts of officer's uniforms and household items for the richer classes.

By 1200 B.C., the main silver mining had been taken over by the Laurium silver mines in Greece. Around 100 A.D., the Spanish mines had the greatest output, much of their output going to supply the Roman Empire and other trading partners.

Probably the greatest event to effect the supply of silver was the discovery of the New World in 1492 by the Spanish which led to a massive increase in silver from mines in conquered South America.

Fortunately the German Empire had adequate silver mines to be able to produce large impressive silver coinage. Commercial grade fine silver is at least 99.9% pure silver though most of the early German silver was not this pure initially.

Right – the obverse - Germany, Saxony, Albertine line, 1592 silver thaler, showing Christian II, Johann Georg & August. Below it is the reverse or back of the coin.

Many of the early silver mines were controlled by the Crown if the land belonged to them, or to the landowner. They claimed rights over the mines and took a share in the output though many were often, in the earliest days, just small scale activities. Ore was usually mined from shallow mines with most generally associated by a village or town as it was too difficult to transport.

As early society's needs changed there was more demand for metals to be used for agricultural tools, weaponry, wheeled vehicles, buildings and numerous other items as wooden items were replaced.

After the 10th century there was an increase in the knowledge of metallurgy. The Germans especially discovered new mines and were soon exploiting them though they often found that they had no real means of drawing off the water from the mine's shafts and tunnels, a problems that still plagues underground mining today.

Smelting sites were multiplied and new mines were discovered and exploited by German miners, like the well-known Mines of Rammelsberg, close to the town

of Goslar by the Harz Mountains. Open-cast mining and metallurgical activities were mostly concentrated in the Eastern Alps, Saxony, Bohemia, Tuscany and the Rhineland.

By the early Middle Ages metallurgists had discovered a way to refine the silver-lead ores, however by the 14th century workers had learnt how to use the 'acid process' to separate gold from the silver ore. By the same time the most suitable mines had been where the silver ore was near the surface but they had been exploited, so suitable mines were becoming scarce. By now German miners had learnt more about mining methods and metallurgists had become so important that they began organising themselves into Guilds, especially in the German region.

It was the German metallurgists who lead the search to discover areas where this rich silver ore could be found. They were not just looking for silver metal ores but any ore that money could be made out of, especially in Southern and Eastern Germany before expanding their area into the Eastern Alps, and afterwards, much of Central Europe.

One area in Germany that became a prominent mining area was in the Upper Harz in the Hartz Mountains which encompassed several mining towns where miners were predominately involved in vein mining using chisels and hammers. Included were Grund, Zellerfeld, Lautenthal, Sankt, Altenau, Andreasberg, Wildemann and Clausthal where they mined lead, silver, copper and iron and later zinc. By the middle of the 1800s almost half of Germany's silver came from here, supplying their official mints.

Taxes from the mining operations boosted the German Empire and particularly the taxes raised from this contributed significantly to the Hanover and Brunswick-Wolfenbüttel Royal Houses.

In the 1700s some of the mines in the region were considered the deepest in the world at over 1,000 feet, some later mined below sea level. This was a large change from the earliest method of working on surface deposits known as 'open cast workings'. For hundreds of years the miners used ladders to get down to the workface and as mines went deeper they could spend some two hours climbing up or down ladders to work.

Underground it was hard work however the use of blasting powder (gun powder that they used to blast



the rock) made things easier after it was introduced in 1630. It was dangerous business and there were many accidents. The use of explosives also meant that more timber was needed to shore up the mine. Boring the hole was invariably carried out by two men, one would turn the borer whilst the other miner hit it with his heavy hammer.

Many of the silver ore veins were just several metres wide running almost vertically. Much of it was found in greywacke, a grey type of sandstone known for its hardness.

In 1866 the operations of the mines in the Upper Harz was taken over by the Royal Prussian Mining Inspectorate after the annexation of the Kingdom of Hanover by the Prussians.

Initially the silver ore was brought to the surface in woven wicker baskets. As shafts deepened hand winches were introduced to raise the containers of ore. Then wooden buckets were initiated and much later horsepower and a horse whim – a type of winch that was driven by several horses walking in a circle all day. Later larger iron barrels were used, some having wheels to put onto tracks on the surface.



The Knights of the Teutonic Order produced very large and detailed coins such as the 1603 silver one thaler (above). It features Archduke Maximilian III as Grand Master of the Teutonic Order. The coin has a 42 mm diameter and weighs 29.43 grams. These massive thalers quickly penetrated into neighbouring countries, gaining a leading place in circulation. Small hordes of these pieces are occasionally dug up having been hidden in times of desperation.

Struck at the Tyrol Mint this thaler has a milled edge. The Archduke is standing between the Austrian shield and helmet. The reverse of this coin features an armoured Knight in circle of 14 shields plus a large shield of the Order, domiciled at Mergentheim,

Württemberg.

The town of Tyrol where the coin was minted is historically known for the production of salt at Halltal, it trading on the Inn River. The town was surrounded by a town-wall.

The first mint was in Meran but in 1477 Archduke Sigmund of Tyrol had it transported to Hall and re-established it in the Sparberegg building to ensure its protection. It was also nearer the local silver mines at Schwaz. In 1486 they minted their first silver thaler establishing this mint's fine reputation.

Here the mint operated until 1566 before it was decided to transfer it to a wing of Castle Hasegg which used rolling-mills on hand operated machines.



Later impressive silver coins were those for the Prussian Coronation issues, this thaler struck in 1861 for the Coronation of Wilhelm & Augusta (Obverse above). Below is the reverse showing the German eagle featured in the centre. All these coins show the superior quality of their mints and their engraver's abilities.



TRADITIONAL LIMESTONE YAP MONEY CALLED 'RAI'

Most people will have never heard of 'stone' money, especially when they can be pieces over 6 to 12 feet across and some over 18 inches thick. Known locally as Rai stones they are hefty, spherical stone disks with a hole centrally placed, that the natives on a number of the islands of Micronesia, and particularly on the island of Palau, as currency. Some weighed several tons, some as much as a car.

Distance appears not to be a great problem as the natives would move these donut shaped limestone pieces by canoe to the Island of Yap to use as currency. Even so it was a hazardous process.



The Yap islanders really used the large stones as tokens as most were of an impractical size to even move thus owners would verbally trade the stones. There are smaller examples which are around 4 inches in diameter and some are about discus size. The hole in the centre of the Yap money would have assisted the native workmen to carry and transport the limestone.

They appear to have maintained their value as the Yapese due to their scarcity. The islander had to make a great effort to get pieces to the expected shape then the danger they went through to sail them to their home island on rafts which were towed behind large outrigger canoes which had sails on them. Once home they would be placed in front of the owner's house, the local meetinghouse, ceremonial grounds or placed prominently along local paths.

The quarried limestone didn't come free they were required to bring trade items to exchange to the stone. The Yapese paid in woven seashell belts, turmeric and other trade beads and coconuts.

This unusual form of money has been used since 500 AD and are still used today but primarily for social ceremonies such as a marriage, a sign of allegiance, to purchase land or to make restitution for killing a warrior in battle.

Yapese quarried the limestone rocks from the islands

of Palau some 250 miles away in an easterly direction as there was no deposits of limestone on their own island of Yap. As renowned navigators the Yapese could easily traverse the oceans. Despite this the work and voyage took a toll and lives were lost during these expeditions.

The Rai stones were carved out of limestone which is a sedimentary rock comprising primarily of calcite and aragonite minerals. These are different crystal forms of calcium carbonate. Various translucent white, orangeish or brownish varieties of limestone with its vitreous to dull lustre were worked by the natives.

Limestone which has a hardness of 3.5 to 4 was mined from several quarries where this natural stone was usually carved from vertical cliff faces. The workmen used pumice stone to smooth and polish the giant stone discs.

The Portuguese were aware of the Yap islands as explorer Diego da Rocha dropped anchor there in 1525. Archaeologists have evidence that the islanders worked limestone quarries on Palau for over 1500 years. They used their own shell and stone tools to work the limestone and shape it until they were introduced to European iron tools by an Irish-American man who was shipwrecked near Yap.

The wreck took place during a typhoon in December 1871 and the survivor named David O'Keefe was cared for by the Yapese. Captain O'Keefe decided to trade metal tools in exchange for trepan and copra which he sold to the Middle East and Europe. Ironically the Yapese valued these metal tool made stones at a lower value than traditionally shaped stones.



O'Keefe acquired a Chinese junk he named "Katherine" and helped the islanders quarry and transport the immense stones back to the islands. He also used it to ship products from the island to trade elsewhere, a practice he did for some 30 years until he and his junk vanished in a storm.

The islanders were advised in the late 1870s to determine a value to these easier acquired stone money so it related to the size of the stone. One three hand spans wide was worth 5 bags of trepan and 25 bags of copra whilst a stone 18 hand spans was worth 650 bags of copra.

