



**THE
MINERALOGICAL SOCIETY
OF
NEW SOUTH WALES INC.**

C/o School of Natural Science
B.C.R.I. Parramatta Campus University of Western Sydney
Locked Bag 1797 Penrith South DC N.S.W. 179
Website: www.minsocnsw.org.au

NEWSLETTER

OCTOBER 2010

The October Meeting will be held on Friday the 8th of October at 7.30 p.m. in the LZG14 lecture theatre on the ground floor of Building LZ in the Science campus of the University of Western Sydney on the corner of Victoria Road and James Ruse Drive in North Parramatta.

MEMBERS PLEASE NOTE: The Society Meeting is being held on the SECOND Friday of this month because the first Friday is before a long weekend.

The program will comprise lectures to be given by John Rankin on :-

‘Mineral Catalogues’

And by Paul Carr on :-

‘Plate Tectonics to Mineral Deposits’

FORTHCOMING MEETINGS

Subject to circumstances some changes to the following schedule of program subjects and speakers may be made in due course.

November 5th: Member’s Forum followed by a lecture by Glen Diemar of the University of Tasmania on ‘The Roxby Downs Copper-Uranium Mine’.

December 3rd: Christmas Social

February 4th 2011: ‘New Minerals Update’ talk by Peter Williams and a lecture by Peter Leverett on ‘Mines in the Mist – Mt Lyell’.

March 4th 2011: Tucson 2011 Update and a lecture by John Rankin on ‘Collectors of the New England’.

April 1st 2011: Talk by John Smedley on 'Labels for Minerals' and a lecture by Gary Sutherland on 'Cousin Jacks – Cornwall's Mining Heritage'.

May 6th 2011: Member's Mini Auction.

June 3rd 2011: 'The Prospect Intrusion. Brief History, Geology & Member's Experiences.

FIELD TRIP

The FIELD TRIP EXCURSION to the SOUTH COAST Kiama-Wollongong area intended to have been held on Saturday the 4th of September was cancelled due to the bad weather on that day. It is hoped to re-schedule the trip for later in the year.

THE SOCIETY COMMITTEE

PRESIDENT:	Dieter Mylius	Tel: (02) 9477 1060
VICE-PRESIDENT:	John Chapman	Tel (02) 9808 3481
	E-mail:	<i>chapmanjr@optusnet.com.au</i>
SECRETARY:	George Laking	Tel: (02) 9636 7145
		E-mail: <i>bglaking@tech2u.com.au</i>
TREASURER:	Graham Ogle	Tel: (02) 9876 5224
COMMITTEE MEMBERS:	David Colchester	Tel: (02) 9449 3862
	Arthur Roffey	Tel: (02) 4572 5812
	John Smedley	Tel: (02) 9688 1284
	Gary Sutherland	Tel: (02) 9871 1379
	Peter Williams	Tel: (02) 9685 9914

SEPTEMBER MEETING

At the commencement of the September meeting the President, Dieter Mylius, drew member's attention to an item presented in the Newsletter suggesting establishing a **Member's Forum** to deal with mineralogical queries, suggestions or matters of interest and invited John Chapman to describe what was intended. This led to a brief discussion among the members about aspects of the Forum with a number of points being made. It was generally decided that the maintenance of a Forum should be continued with any suggestions that members might have to be e-mailed or otherwise communicated to John Chapman.

The President further advised that the Society Committee had been looking into reprinting a number of copies of the book by George Smith '**A Contribution to the Mineralogy of New South Wales**'. The production costs of a hundred copies might work out to about \$44 each plus postage and the President asked for a show of hands to indicate how many members might be prepared to buy a copy. The reprint would copy the original text precisely but it was hoped would include extra colour photographs and a biography of the author. A number of members indicated their interest and the President advised that the Committee would continue looking into the project and report back in due course.

Graham Ogle reported that the **Micromounting Group** would be meeting at Graham Delaforce's house in Penrith at 1.00 p.m. on Saturday the 18th of September and visitors were welcome but were asked to telephone in advance to advise that they wished to attend the meeting. The theme would be 'Minerals of the U.S.A.' but the Group would also be interested to see minerals from any other countries. Graham Ogle advised that due to donations from members there was a certain amount of surplus stock of micromount material to dispose of, notably from Andy Paterson in Belmont who had been down-sizing his collection, but that if anyone else had surplus micromount or other material to dispose of by all means to let him know or bring it to the General Meetings to donate to other members and generally distribute such material through the Society.

The Committee had decided that the Society should participate in the **2011 Gemboree** to be held in Bathurst over Easter next year by setting up and supervising a display stand. Arthur Roffey was asked to describe what would be involved. Apart from setting up showcases and displays a number of members would be needed to man the stand throughout each day from the opening at 10.00 a.m. on Friday morning April 22nd to Monday April 25th - from 9.00 a.m. to after 5.00 p.m. on Saturday and Sunday and to after 2.00 p.m. on Monday. The same people need not be at the Gemboree for the whole four days and could readily travel to Bathurst just for one day, preferably arriving before the opening time each day, to provide their services. Arthur Roffey urged members to help man the Society display stand for at least a few hours as part of a roster with others and to give him their names so that he could prepare the roster.

The President then introduced the first speaker for the evening. Society member Dennys Angove is a Senior Research Scientist with the C.S.I.R.O. at Lucas Heights and has been studying atmospheric chemistry. His interest in minerals has been to collect representative samples of every safe and accessible element.

[In the notice in previous Newsletters for Dennys Angove's lecture at the September meeting the word **QEMSCAN** was given incorrectly. 'QEMSCAN' is an abbreviation of the words **Quantitative Evaluation of Minerals by SCANning** electron microscopy.]

The QEMSCAN Analysis of Minerals' Dennys Angove

Initially Dennys Angove stressed that he was not a sales person and did not mean to be advertising certain companies but had to have asked permission from the American FEI company to display a number of their slides to illustrate his lecture. By way of introduction the first slide displayed was of a view of Sydney from four years ago and taken after a period of bush fires which had produced an amount of pollution over the city. In his work as an atmospheric chemist at CSIRO the speaker normally dealt with the micro-constituents of such pollution. Investigation and analysis by many workers in a number of important fields of mineral identification and quantitation has been considerably helped by the application of QEMSCAN methodology. The speaker became involved with the methodology after the departure from Lucas Heights of a colleague, David French, who had helped develop the system among other purposes for providing a means of analyzing fine particle emissions from various sources such as coal mines and power stations.

QEMSCAN is the name for an instrumental system incorporating scanning electron microscopy with four X-ray spectrometers rapidly providing high-resolution multiple X-ray spectra and with very comprehensive software to process the image information. It is particularly applicable to small-particle analysis and can identify minerals in particles down to 1-2 μ m in size which had been collected by depositing on to a filter or on to a wire network but can readily identify particulate minerals in larger samples of ore, rocks, drill-cores, soil embedded in resin, or any sample presented as a flat or polished section. As well as identifying and quantifying minerals in a sample the system will also provide information on particle size, distribution and association with other minerals as well as providing a mineralogical analysis of each individual particle at a rate of 5,000 particles an hour.

X-ray spectra derived from an assay are referred to a data-base within the system that contains hundreds of thousands of spectra of known minerals. If an unknown mineral is found in a sample the system gives options.

QEMSCAN was developed by CSIRO being originally conceived as a tool for the mining industry but as the development progressed it was clear that the system would have a number of other applications. In order to market the system CSIRO set up a company called Intellection in 2003 which had built up to one hundred staff by 2008 when it was bought by the American F.E.I. company. By now there are about seventy QEMSCAN systems world-wide worth about four and a half million dollars each and generating royalties for the developers.

The speaker then spent some time describing the instrument hardware, the operation of the system and the results that would be provided by it including looking at a number of assays that had been produced. For many purposes an analysis can be run in only one minute but for analyses of very fine particulate specimens the assay might have to be run for at least five hours if not up to 24 hours. Samples with particle sizes down 0.1µm can be analysed but the smaller the particle size the longer an examination would have to take. Although the view that the detecting system takes of a sample surface is effectively two-dimensional since there are four detectors this means that a stereoscopic view of individual particles can be obtained allowing the system to estimate and record the grain size and volume.

In conclusion Dennys Angove showed images of analyses performed on many of the rocks and surface regolith samples brought back from the moon. Many of these had not been subjected to analysis before since previous technologies would have involved some destruction of each sample. Much Lunar rock mineralogical analysis has in effect been waiting for a technology to be developed that would be non-destructive and the QEMSCAN system has provided this.

The second lecture of the evening was given by Allen Arnold

‘Collecting, A Wonderful World’

Allen Arnold

By way of an introduction to his lecture Allen Arnold referred to an author, Gary Bowersox, who wrote a book about hunting for gems and minerals called the Gem Hunter. Gary’s claim to fame is that he is the man who sold Stinger missiles to the Taliban to shoot down Russian aircraft and he was paid in emeralds. In his book the author claims that the collector does not find gems and minerals, they find the collector. It has however been Allen Arnold’s opinion that the collecting of minerals and gemstones is more of an addiction and he did not think that they had found him; on the contrary, he had to find them. Accordingly the speaker would like to tell the Meeting about some of his experiences over a long period, by now of sixty years, collecting minerals and gems.

Allen Arnold’s first encounter with crystals as a young fellow was that of a large quartz crystal cluster used as a door-stop outside an old miner’s cottage which had fascinated him. In 1950 the speaker’s father had purchased a property at Silent Grove, a mining area north of Torrington. There were a number of abandoned mines on the property and one could readily find quartz crystals of varying qualities lying around on the ground. There was also a patch of water-worn rocks and gravel on top of a hill where the speaker, then as a young boy, could find topaz, which were the first gemstones that he came across.

In the 1950s there was a man named Roley Coghlan camped on the Silent Grove property at the old McGillivray’s tin mine. It was a very wet year and the man was camped in unpleasant circumstances with a rather dilapidated tent pitched under a tree with an outside fireplace. He was working a very hard rock shaft approximately twenty metres deep by ‘hammer and tap’, a really primitive method. He described the site as “too good to leave but it’s not good enough to stay here” and after a few months he left for Western Australia.

In 1965 Allen Arnold purchased the farm from his father and commenced work building a house and undertaking other work that has to be done on an undeveloped property. A few days after he had moved there permanently Roley Coghlan appeared on the doorstep to say that he had taken up the old McGillivrays mine having made a little money working in W.A. and then selling his farm there. He had brought some machinery with him and wanted to resume working on the McGillivray site and also wanted to build a hut to which the speaker, with his nearest neighbour then over ten kilometers away, readily agreed.

Roley was something of a story-teller and had fascinated the speaker as a young boy in earlier years with stories of his experiences in mining, particularly of tin which was very much a part of the lives of people living in that part of New England. When one went to sell some wool or rabbit skins at Riley Newman's shop there was always an assortment of magnificent tin specimens on display on shelves in the store to fascinate a youngster. Roley had come home from the war, gone to work around Torrington and for a period worked the McGillivrays shaft at Silent Grove before moving to Western Australia where he went to work for a while for a tin mining company, Greenbushes. He had tried to encourage the management of the company to improve the equipment and methods in the cleaning plant in order to recover more tin from the ore but was basically told to get on with the job and not interfere. When the company went broke six months later and held an auction sale Coghlan offered to buy the tailings dumps for 20 pounds. He then made £20,000 in three months recovering tin from the dumps and bought a farm which he worked for several years before selling it and returning to Silent Grove to resume mining the McGillivray site.

In 1967 Allen Arnold heard that Roley Coghlan had found an incredible vugh of amethyst crystals in the mine. The crystals were very deep coloured, as good as the best Mexican material and mostly doubly-terminated clusters. Unfortunately the amethyst was of no interest to Coghlan and he had fired a charge of dynamite in the vugh and by the speaker's estimation had blown away about \$50,000 worth of amethyst crystals for \$500 worth of tin. The speaker recovered a few broken pieces from the dumps but in not having heard about the find soon enough missed getting any more. In 1970 Roley Coghlan sold the mine to the Duval tin mining company and a little later because circumstances were fairly bad on the land at that time the speaker took a job with the company. About a year later the mining hit another crystal vugh at the 200 foot level. The crystals were clear, doubly-terminated clusters many with amethyst phantoms in them. There were thousands of them and this time with the speaker on hand when the vugh was discovered he was able to collect at least 2-3 thousand for himself.

It did not take long for the rumours to get out and one morning two fellows appeared on Allen Arnold's doorstep to ask about the crystals, and subsequently offered to buy them. Unfortunately at that time the speaker did not know what prices to ask and ended up exchanging about twenty of his best amethyst crystals for a pile of relatively valueless broken prehnite and agate slices. This experience was probably Allen Arnold's first step on his learning curve in the crystal and mineral business.

Reg Taylor had a mineral museum displaying what he called one of the world's best collections and invited the speaker to visit anytime and particularly if Allen Arnold had anything to sell, to see him first. A little time later the speaker did call upon Reg Taylor at his museum display and was shown around the collection which was stunning. There were great big copper specimens from Mt Isa, numerous Indian zeolites which Taylor used to bring in to Australia in half-ton lots, sulphurs from Italy and crystals of all kinds housed in a specially-built museum. The entire collection and display impressed the speaker immensely.

At Silent Grove the Duvall company went on mining the McGillivray mine reasonably successfully but after continuing working for the company for four more years including being sent to the Northern Territory for a while, also for tin, Allen Arnold had become disillusioned with his farm there. After receiving an offer to buy he sold it up and moved to Canberra. As an illustration of his time living in the tin mining country the speaker passed around to members at the Meeting a few tin specimens collected from the site, some of these being the first specimens of tin he had found when persuaded by Roley Coghlan in the early years to spend some time prospecting.

Not long after he had moved to Canberra Allen Arnold had occasion to make a trip to Orange one day and saw a mineral gallery by the side of the road and upon stopping to look over the collection on display was able to

make the acquaintance of Warren Sommerville. Warren was very helpful and informative showing the speaker all over his Museum, describing the background to many of his specimens and assured the speaker that he had one of the World's best mineral collections. On a subsequent visit to the Sommerville collection in Orange the speaker also met Albert Chapman when both were looking at a case with a number of Japanese twin quartz crystals. Albert was very interested in such specimens at that time and upon being told that the speaker had some friends who had probably 'about fifty or sixty of those that they had found a few weeks ago' asked to be given their names so that he could offer to buy them. Albert invited the speaker to visit his own collection in Sydney which the speaker was later to do. In being shown the Chapman collection Allen Arnold was again very impressed and was again also told that this was one of the World's best mineral collections which meant that he had by then seen three of the World's best mineral collections in a relatively short time.

Over subsequent visits to Albert Chapman the speaker and he became quite friendly and at one point Albert recommended that the speaker come with him to the Tucson Show. This was in what were relatively early years with only about four hotels in the town and the Show was much smaller than today. In visiting the various dealers however the speaker found he was constantly being assured that this, that, or the other specimen was 'the World's best, absolutely the premium, best of its kind or species' etc etc. This meant that the speaker was apparently doing quite well in having seen three of the best collections in the World and was now at Tucson being shown a selection of the World's best specimens! Well, as the speaker assured the Meeting, none of this was true, there is always a better specimen just around the corner and unfortunately many of these are hidden from the public gaze, many of the more wealthy collectors having stored away their collections.

In the early days the Tucson Show always had parties in many of the hotel or motel rooms going on at night until 10, 11 or 12 o'clock. There was always a party somewhere, always a beer and the Show was very different to what it is today. One of the first people that the speaker met at Tucson was a dealer, Bob Jackson, who owned the Spruce Claim outside Seattle. He had mostly quartz and pyrite specimens but also a few amethyst sceptres from the Cascade Range where the mine was situated. One specimen was an amethyst sceptre plate with nine crystals about 50 – 60 mm long sitting on a plate of quartz. Bob Jackson wanted a fair amount of money for it and Allen Arnold went to find Albert Chapman to tell him about it. In going to look at the specimen Albert was quite enthused about it wanting to buy it for himself but agreed that the price being asked was a lot of money. He decided that the thing to do was to wait until the end of the Show and approach the dealer then when the price was likely to have come down. Unfortunately on the second last day of the Show a buyer from the Sorbonne Museum came in and bought the specimen at the original price, disappointing Albert Chapman immensely.

At Tucson Allen Arnold had also met another entrepreneur named Gary McWilliams who ran geological and mineral collecting trips in Alaska. He had an old boat constructed of ironbark wood from Australia because it was the only wood which could withstand the icy conditions in the Alaskan waterways. So the following year the speaker booked a trip with Gary to look for minerals in the south-east Alaska area and accompanied by his young son flew into Seattle then up to Ketchikan and on to Wrangell and went on the boat for two weeks. It was a wonderful experience. The party collected a few miscellaneous minerals, mostly zeolites, but the main purpose of the quest was to look for the green fluorites on Kuiu Island. Upon reaching the island Gary McWilliams who had heard that fluorites were to be found in a cave just off the beach went off to scout ahead, carrying a gun - 'in case of bears'!, leaving the Arnolds on the beach during which time Allen's son found a few nice fluorite crystals, somewhat water-worn but quite big, lying on the beach.

The beach was a flat limestone originally covered by a basalt flow which had been mostly eroded away leaving the limestone exposed at low tide. There were cracks in the beach about 600 to 700 mm wide and several metres long and filled with a thick greasy blue mud. As they waited Arnold's son started digging in one of the cracks and quickly started turning up calcites. The whole crack for about ten meters was filled with huge calcite crystals one after the other. Upon moving on to another crack filled with blue mud deposit the boy next started finding green fluorites, the whole of one side of the crack was covered with beautiful big green fluorite crystals, initially very muddy, but very fine specimens. A number of these were prized out of the crack before the tide started coming in. It was another one of those great collecting trips.

In returning to Seattle Allen Arnold took up the invitation that he had previously received from Bob Jackson to visit the Spruce Claim to do some collecting. Bob in the meantime had broken his leg in a fall coming

down from the mine and being temporarily incapacitated but needing to get work done on his mine asked the speaker to do some drilling and blasting for him. Accordingly the Arnolds and Bob Jackson with Arnold junior carrying Jackson's crutches set out for the mine which was about sixty miles east of Seattle in the Cascade Range, all on dirt roads and eventually up an incredibly steep mountain. The actual Spruce Claim was eighty acres of old growth forest which has never been logged. There were the most magnificent trees in the area including Hemlock, Douglas Firs and Western Red Cedars with one fallen Western Red Cedar tree which even lying on its side was as high as the speaker's shoulder and measured 31 meters to the first limbs.

A problem for the visitors and workers at the mine was that it was situated on about a 60° slope and was an incredibly hard walk up from the nearest road about 1,000 feet below. When they reached the mine the visitors noted a roaring rushing noise like traffic in the distance but which was a huge waterfall which pours down out of the mountains around the corner of the hill. The whole area is magnificently scenic, heavily forested and with snow-capped mountains in the distance. And of course with minerals! These were to be found in a canyon with a stream running down it and the whole formation is of porous rocks with numerous vughs containing pyrite, quartz, ankerite and many Japanese twin and sceptre quartz crystals. The crystals are clear and very aesthetic. The speaker has been to the site about seven or eight times now and has always found something good. It has been just one of those wonderful places to collect.

One year on a visit to the Spruce Claim the weather was really bad with too much rain and on the second day a decision was taken to leave and move to another collecting site at Hallelujah Junction, about a thousand kilometers away from Seattle down on the edge of the desert near Reno, Nevada, to look for scepter quartzes. The scepters from that site are unusual and the countryside is in marked contrast to the Spruce Claim area. Hallelujah Junction, also known as Petersen Mountain, is about thirty miles outside Reno on the California/Nevada border in sagebrush country. There is a tremendous view from its peak and at the foot of the mountain there is a hot spring which flows out of a railway cutting and, according to the speaker, the waters of the spring are said to have marvelous curative properties. The man who owns the mine at Hallelujah Junction, Foster Hallman, is another of these incredible characters that one will meet in their mineral collecting travels. He is about two meters tall, uses a crowbar that is about 50mm thick carried in one hand always with a beer in his other hand, another in his back pocket and apparently it would not be a good day unless he has consumed about twenty beers as he works.

There have been a few problems over the years with the mining at Petersen Mountain. Some years ago a bulldozer rolled down the mountain and the driver was killed. At another time the (U.S.) Bureau of Land Management stopped all mining for quite a number of years. Today the access to the mining area is very limited and whilst the occasional small group of collectors is taken up the mountain the area is otherwise closed to the general public. Some of the minerals from there are very spectacular and occasionally a very unusual crystal is found. The speaker on one of his visits in earlier years found one unusual specimen which he showed to the Meeting and which had apparently rolled down the side of the mountain some distance. It was about 20-30 meters below any of the mined areas and it was only by chance that he decided to dig in the ground there.

Bob Jackson had quite an influence on the speaker's mineral collecting career since through friendship with him Allen Arnold became acquainted with an extended group of people in the Seattle – Portland area. Subsequently the speaker was able to go on collecting trips with Bob and several of the others to a number of other places in the World including South Africa and trips to many places in the Americas. One of the more exotic, or extreme, destinations for a trip was to examine an ametrine mine in Bolivia. At the time Bob Jackson had a contract from the World Bank to assess the potential of the mine for added value product because the owners of the mine were trying to obtain financing from the Bank. So Allen Arnold, Bob Jackson and another friend from the Portland area went to Bolivia. It was one of those places that was very different to what the visitors were used to, certainly mineral collecting with a difference. There were a few highlights of the trip that stayed in the speaker's memory bank as one of the experiences that he really enjoyed, or perhaps has been remembered the more vividly.

Access to the mine was only by boat or plane and possibly the first substantial culture shock was getting into a small overloaded aluminum boat in Puerto Suarez in Bolivia to travel up the Paraguay River for 120 kilometers to the mine. Almost as soon as the journey started the speaker noticed marks on the banks of the river

which he soon realised were due to crocodiles, (or caymans in that part of the world), lying on either side of the river every hundred meters or so. Other animal life seen along the river included tapirs, many adults with ten to fifteen babies each. The river was quite serpentine winding through thick jungle. There were large numbers of birds and apparently the river was full of piranhas although the speaker happily did not see any of those. The boat ran out of fuel twice along the river with on one occasion the driver, 'El Capitan' turning into a side channel for a short way into a small lagoon to find fuel. In the lagoon the party was confronted with the incongruous sight of two large wooden dug-out canoes anchored about thirty meters apart from one another with two locals in each, both canoes being equipped with a large overstuffed armchair strapped on one end, the chairs occupied by two large German tourists smoking cigars and fishing!

There were a few more adventures on the trip upriver including being shot at from the Brazilian side of the river when the boat strayed too near to it in the dark because in that part of Bolivia the Paraguay River is the border between the two countries. Another brief delay occurred when the boat party saw a flashing light in the distance and presumed it might be their destination only to find when the boat got closer that it was due to a cloud of fireflies pulsing in unison! They eventually got to the mine and in looking around the first morning found that there was quite a lot of amethyst strewn around which the miners basically just threw away. One very large amethyst cluster plate was being used by the miners to test their drills on. There was a small airstrip at the mine and potholes in the muddy road to the airfield had been filled in with loose amethyst gem rough. The miners were only interested in keeping the ametrine which is parti-coloured amethyst and citrine and were conducting much of their mining by dynamiting the vughs and destroying most of the amethyst in the process.

The party stayed a few days at the mine and then was flown out by the Bolivian Air Force in a small plane after a somewhat alarming take-off. The pilots were seen to cross themselves 2-3 times before they took off, the aircraft stall warning alarm was screaming by the end of the runway and the lantern was dragging against the wheels before the plane eventually got into the air and back to Puerto Suarez, when upon landing the pilots were observed to get out and kiss the ground. At the Puerto Suarez airport since the cousin of one of the pilots owned the cantina the party were invited to have a meal there where they were served baked piranhas and potatoes. The potato plant is indigenous to Bolivia and there are over fifty varieties grown and eaten there.

The last adventure that really sticks in Allen Arnold's mind was a trip he made to Russia many years ago. This arose during one of his many visits to Tucson when he met a Russian geologist staying in the motel nearby who was organising mineral collecting trips to Siberia and the speaker decided that 'This is for me, I am going to have a look at Siberia'. He duly went on the trip and joined a party of seven others which included a Professor Raymond Grant and his wife, their friend Clive Dawe from W.A., a Swedish mineral dealer from Stockholm and a fellow who worked in an atomic power station in Massachusetts. The first site visited was in the Slyudyanka area at the very southern tip of Lake Baikal where blue apatites in marble are found. Lake Baikal is one of the more extraordinary places on the Earth. The lake is 360 miles long, approximately 60 miles wide and one mile deep. The water is crystal clear and rocks the size of a fist can be seen a hundred feet down. The reason that the water is so clear is due to the presence of millions of microscopic shrimp which scavenge all foreign matter from the water. The marble mines at Slyudyanka have been operated for very many years producing an enormous amount of marble. The whole of the road-bed of the railway line for eight hundred miles east of Slyudyanka is made of crushed marble. The blue appetites used to be very abundant there but are very rare now.

After the Baikal area the party was taken east along the trans-Siberian railway for a day and a night to a place called Malhany which the speaker described as a prospect, an area of otherwise pristine forest with a great many small holes and trenches dug over the top of pegmatite, mostly just trenches with no serious mining. One small mine was producing pink tourmaline and red rubellite and when the party arrived Clive Dawe, the fellow from W.A., offered the Russians \$200 to allow him to work a small area of the mine that he thought looked promising and also hired a couple of the men and a jackhammer and went to work. \$200 incidentally was a great deal of money in Russia at that time. The work paid off because Clive got 190 pink tourmalines for an afternoon's work. After working for most of the afternoon and becoming tired Clive Dawe invited Allen Arnold to take over for a while longer and the speaker was able to find a few of the tourmalines for himself.

In conclusion Allen Arnold avowed that there was no doubt that in his collecting career tin minerals have been his favourites and have been avidly collected whenever and wherever he could, either from off the ground or with the silver pick. His collecting career has been great fun over very many years and even although he considers himself not very scientific or very knowledgeable about the composition of minerals he has had a great deal of fun collecting and dealing with all the specimens that he has found.

At the end of his lecture Allen Arnold was pleased to answer a large number of questions including providing updates on some of the people he had met and referred to during his collecting career. Gary Bowersox is living quietly in Hawaii, (and is the proprietor of a gem collection museum in Honolulu). Roley Coghlan is now 94 years old and living in an aged care home in Tenterfield still talking about opening up a number of mineral prospects which he knows the locations of. Bob Jackson has sold the Spruce mine to a consortium of collectors who have established a time share basis for allowing collecting trips there.

The speaker also provided an update about the ametrine mine in Bolivia where the current owner, Romero, was trying to get it declared as part of a World heritage area and the mining camp used as an eco-lodge. This would prevent any other ametrine mines being operated there and would enhance the value of an amount of ametrine which he had stockpiled! This proposal was in the pipeline at the moment.

In delivering more details about his visit to the mining area at Malhany Allen Arnold described a very different time in Russia then. Perestroika had arrived, the state system had collapsed, people had lost their way and those working in the mining area had very little purpose, or income, in their lives. The speaker referred to one local fellow whom he had noticed who came to work on time every day to sit on his loader, inoperable because there was no fuel, to sit there all day and go home in the evening without having been able to do any work. He had been doing this for two years. This was how the country had fallen to pieces at that time.

Further questions and answers dealt with the Silent Grove and Torrington area and mining for tin there and the speaker filled in a lot more detail of his time working in the area for the tin mining company and on his farm. The speaker notably reported the observation made by his old friend Roley Coghlan that most of the money Roley had made out of tin had been made from other's mistakes, (by them failing to adequately process and extract the tin from the ore and leaving much of it in the dumps).

Allen Arnold was finally allowed to finish his lecture with questions and answers after delivering an extremely informative description of a long and wonderful career in mineral collecting.

MINERAL COLLECTION FOR SALE

I am selling part of my collection. Approximately 25 flats, 625 aesthetic specimens all sizes.

Many thumbnails and miniatures. Worldwide and Australian locations, many rare species.

Wide price range from \$10 up. Catalogue available to email as PDF.

Will consider selling as one lot, or by individual flats (25 specimens of buyer's choice per flat).

Note: Individual specimens sold to collectors only.

Please contact Ron Jacobson on 0414 388 144 or email ronaldjacobson@bigpond.com

GEMKHANA 2010

October 2nd, 3rd, & 4th. Saturday & Sunday 10am-5pm, Monday 9am-midday

At the Cessnock Indoor Sports Centre, Cessnock Showground, Mount View Rd, Cessnock.

The **GEMKHANA** will feature the competition of handcut stones, jewellery, carving, enameling, minerals & fossils. Dealers. Tailgaters. Displays. Demonstrations. Field trips are being planned.

On-site camping is \$15 per night both powered and unpowered and the Big 4 Valley Vineyard Tourist Park. (02 4990 2573), is almost next-door, for those who prefer more comfort.

If staying off-site, book early. Cessnock is a popular weekend destination.

Refreshments. Plenty of parking. Wheelchair access.

Marilyn and John Behrens Gemkhana Co-ordinators

Telephone (02) 9635 8218 or e-mail : mbehrens@optusnet.com.au

GEM SHOW 2010 By the Northern Districts Lapidary Club.

To be held in the Beecroft Community Centre, Cnr of Beecroft and Copeland Roads, Beecroft.

Over Friday to Sunday the 29th to 31st October. Open on Friday from 10.00 a.m. to 9.00 p.m.

Saturday 9.00 a.m. to 5.00 p.m. and on Sunday from 10.00 a.m. to 5.00 p.m.

Featuring displays and sales of Gems, Jewellery, Minerals, Fossils,

Polished stones, Slabs, Demonstrations, plants, books and More.

Entry fees \$3 adults, \$1 children, Families \$6. Light refreshments available.

Inquiries to www.ndlapidary.org.au or telephone (02) 9484 0014 or (02) 9871 3302

The 50TH ANNUAL GEMSTONE & MINERAL SHOW

Presented by members of the **Parramatta & Holroyd Lapidary Club**

over Friday, Saturday & Sunday, the 12th, 13th & 14th of November 2010

at the Clubrooms at 73 Fullagar Road, Wentworthville.

Competition, displays, demonstrations, sales. Sand sieve and fossicking heap.

Refreshments. Plenty of parking. Wheelchair access.

47th GEMBOREE 2011

Easter 2011. Friday to Monday, April 22nd to 25th, in the Bathurst Showground, at Bathurst, N.S.W.
