



THE MINERALOGICAL SOCIETY OF NEW SOUTH WALES INC.

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NEWSLETTER

JULY 2011

The July Meeting will be held on Friday the 1st of July 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.

The program at the July Meeting will comprise two lectures.

The first will be given by Professor Peter A. Williams on: -

‘Gazing into the Mineralogical Crystal Ball. Where is it All Going ?’

The talk will be followed by a lecture by John Rankin on: -

‘Peeling back History’.

FORTHCOMING MEETINGS

Society Meetings will be held on the first Friday of each month through the rest of this year. Subject to circumstances some changes to the following schedule of program subjects and speakers may have to be made in due course.

- August 5th: Society Annual General Meeting and the Memorial Lecture to be given this year by Associate Professor Paul Carr on ‘Minerals – Time Capsules for Earth’s History’.
- September 2nd: There will be a talk to be given by Jim Sharpe on ‘An Occurrence of Campigliaite at Broken Hill’ and a lecture by John Tottenham on ‘A Prospector’s Observations on Victorian Gold’.
- October 7th: Lecture by Professor Ken McQueen on ‘Cinnabar (Mercury) Mining in Australia’.
- November 4th: Lecture by Adam McKinnon on ‘Establishing a New Mine at Mineral Hill’.

- December 2nd : Christmas Social.
- February 3rd 2012 : Lecture by Dieter Mylius and John Chapman on 'Landforms and Minerals of Iceland'.
- March 2nd 2012 : Lecture, (not finalised), on 'Metallogenic Mapping. Locating the Mineral Deposits of N.S.W.'
- April 13th 2012 : (Good Friday is on the 6th of April in 2012. The Society Meeting therefore will be held on the second Friday). There will be a lecture by Professor Peter A. Williams on 'Bronze Age Mining and Metallurgy'
- May 4th 2012 : Members Mini-Auction.

2011 ANNUAL GENERAL MEETING

Members are hereby duly notified that the Meeting on **Friday the 5th of August 2011** will be the Society **Annual General Meeting** which will commence 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.

The A.G.M. will commence with the President's report for 2010/2011, the presentation of the annual financial statement and the election of the Society Committee and office-bearers for 2011/2012. In accordance with the Society Constitution the entire current Committee retires at the commencement of the A.G.M. and all positions are open for nomination and election. Any other business may also be raised and discussed. The Minutes of the previous 2010 A.G.M. were circulated in the September 2010 Newsletter. Copies of this will be available at the 2011 A.G.M. or may be obtained from the Secretary.

Nomination forms for election to the 2011/2012 Committee are being circulated with this Newsletter. Further copies may be obtained from the Secretary if required. According to the Society Constitution nominations should be received seven days before the commencement of the A.G.M. Only financial and Honorary Life members of the Society are eligible for nomination or allowed to participate in any voting.

Any members who feel able to serve on the Committee are urged to discuss this with any of the current Committee members and to make known their availability for nomination at the A.G.M. A member can be nominated for but cannot hold more than one position.

WELCOME

Welcome to new members Ernst Holland of Bathurst
and Bob Meyer-Gleaves of Inverell

FIELD TRIPS

There are three **Field Trips** being organised for the next few months. There will be a one-day excursion to the Kiama-Wollongong area on Saturday 23rd July, a weekend trip with an overnight stay to the Scone area over Saturday and Sunday, 3rd & 4th of September and a one-week trip to the Garrawilla area from Tuesday 4th to Monday the 10th of October.

South Coast Excursion – Kiama-Wollongong area Saturday 23 July 2011

Meet at 10 am at the Kiama Blowhole car park, Blowhole Point (near the lighthouse)

The excursion will be guided by Peter Williams and Paul Carr and will visit a number of localities in the Kiama-Wollongong area. It is based on a University student excursion and will concentrate on geology with only minor opportunities for collecting. Sites to be visited include Kiama Blowholes, Bombo Quarry, Wollongong Lighthouse and Austimer Beach. There will also be an opportunity to view the Howard Worner and other Collections housed at Wollongong University.

Please advise John Chapman if you will be attending, and provide your mobile phone number (if applicable). John may be contacted on 9808 3481 (Home) or 0435 085050 (Mbl) or by email at chapman@optusnet.com.au . To facilitate car pooling please let him know if you want, or can offer, a lift.

Upper Hunter Valley Excursion. 3rd & 4th September 2011

Party may meet at Denman at 11.00 a.m. Possible sites to be visited include Bunnan calcite, Krui River zeolites and the Burning Mountain at Wingen. Saturday night accommodation will be in Scone. Further details will be provided in due course.

Garrawilla Excursion . 4th to 10th October 2011 (following the long weekend and Gemkhana at Cessnock).

An opportunity to collect zeolites from the Garrawilla volcanics. Possible sites to be visited include Portabella, Garrawilla, Glendowda and Mullaley. This trip will involve field camping. Members can attend for the full period or any days between the 4th and 10th of October. Further details will be provided in due course.

THE SOCIETY COMMITTEE

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The JUNE MEETING.

At the commencement of the June 2011 General Meeting there were a few announcements.

John Chapman advised that there were several **Field Trips** being planned for later in the year. The first of these would be over a weekend in July and comprise a trip to the basalt quarries in the Kiama and Wollongong area. The date had not yet been decided.

Around the last weekend of August or first weekend of September, most likely on September the 3rd & 4th immediately after the Meeting that month, there will be a trip to the Hunter Valley to look at a calcite locality west of Scone recently investigated by Dieter Mylius. There are also zeolite localities in the area that could be visited and possibly the 'Burning Mountain' at Wingen. This would be a two-day trip with the party camping or staying overnight in the area.

A week-long trip is being planned for about the second week in October to the Tambar Springs area and whilst it will be organised to last a week members and/or groups would be at liberty to join the trip just for a weekend. The party would be camping and spending most days fossicking and digging on the Garrawilla, Glendowda, Portobello or Mt Mitchell properties but the precise itinerary has yet to be determined.

Graham Ogle announced that the next meeting of the **Micromineral Group** would be at Brian England's house in Maitland at 11.00 a.m. on the following day. The theme of the meeting would be on the minerals of **Kingsgate**. In this connection Peter Williams reported that the bismuth molybdate mineral from the '25' and 'Wolfram' pipes at Kingsgate which U.W.S. researchers had been investigating for some time had now been published and named **Gelosaite**. The researchers were still working on another associated hexagonal mineral which in due course they hoped to establish as Kingsgateite.

Symposium on 'The Prospect Intrusion.

History, Geology & Member's Collecting Experiences.'

The Display of Prospect Mineral Specimens

The Symposium was considerably enhanced by a substantial display of Prospect mineral specimens brought in by members from their collections. Thanks are due to those members who brought in the specimens which the speakers constantly were able to refer to during the Symposium to help illustrate their talks. The display may have been a rare occasion on which such an array of Prospect specimens had been brought together in one place for viewing.

Contributions by members

Throughout the Symposium members present constantly offered extra information and commentary supporting and / or supplementing whatever the speakers were delivering.

The Location

Prospect Hill is situated now within the greater Sydney urban area about twenty-eight kilometers due west of central Sydney and immediately south of the Great Western Highway and M4 motorway at Prospect. Quarrying for road metal was commenced in the 1830s and is being continued to the present day currently by the Boral Company. Prospect quarry was first named the Emu quarry then later re-named the Prospect with other operations opened as the Styles and Widemere quarries but by today quarrying has effectively merged all these.

Dieter Mylius initially provided a brief history. In 1808 William Lawson the explorer was granted 500 acres of land in the area which included Prospect Hill and in 1846 his third son Nelson Lawson built Grey Stanes House there. The name, later given as 'Greystanes', was derived by the Lawsons because of the outcrop of grey stone in the grant, 'stane' being the Scots word for 'stone'.

The Geology: Meagan Williams.

Prospect is quite a small and shallow slightly saucer-shaped intrusion of igneous rock of Jurassic age about two kilometers long by one kilometer wide and about two hundred meters thick. It has a thin chilled margin of fine-grained basalt with most of the mass of the intrusion being made up of picrite and dolerite. The picrite is a coarse-grained rock dominated by olivine and making up about two-thirds of the lower part of the intrusion with the upper third of dolerite which is also quite olivine-rich although also containing other mafic (ferro-magnesian) minerals. The intrusion became stratified depending on how parts of the intrusion differentiated as it cooled down. Also as it cooled down many shrinkage cracks developed in the intrusion which allowed hot magmatic fluids to move through developing pegmatite and depositing prehnite, calcite and other secondary minerals mainly in the upper part of the intrusion.

The Mineralogy Brian England

There have been a large number of minerals found at Prospect and these fall basically into two occurrences. There are the miarolitic minerals found in small cavities up to 10cm in diameter in the dolerite. There were not many of these and crystals were not large but include diopsidic augites up to 3-4 cm in length although usually only about 5mm. The only mineral of any interest in the miarolitic cavities is plagioclase which has provided white to colourless fairly lustrous crystals varying in size from a few millimeters to two centimeters. There have been some quite spectacular specimens found in the past. Most crystals are tabular on the $b\{010\}$ face and show both repeated albite twinning and parallel growth features.

The main source of the secondary minerals from Prospect has been the pegmatite and microdolerite rock. The speaker then referred to an article which he had written and which was published in the May-June 1994 Volume 25 issue of the Mineralogical Record, '*Minerals of the Prospect Intrusion, New South Wales, Australia*' and to a photograph in the article taken of Prospect quarry in 1981. The photograph clearly showed the pegmatite lenses or 'schlieren' as they were called, in the quarry wall. Referring to the specimens which had been brought in to display the speaker pointed out that a number of these demonstrated a paragenetic sequence of the minerals from Prospect which was really quite complex with several 'pulses' of mineralisation having occurred as the mineralizing fluids infiltrated cavities at different stages.

Brian England then proceeded to describe the minerals in alphabetical order basically as he said reprising the list of minerals from his 1994 Mineralogical Record article.

Analcime is the only zeolite mineral found in any abundance at Prospect and is a component of the upper part of the coarse dolerite however crystals which have been found were in cavities in the pegmatite and not in the dolerite itself. Some crystals were quite astonishing being found up to 4cm in diameter although most were less than one centimeter in size. They were generally white and very seldom colourless, usually thickly encrusting the cavity walls which were quite often also filled with calcite. One way to obtain the analcime specimens then was to etch out the calcite although the speaker advised caution with this method since zeolites tend to be sensitive to the application of acid and may become gelatinous.

Apophyllite was not common at Prospect but has been found usually associated with pectolite and showing two distinct habits, one almost cubic and the other prismatic.

Aragonite was the least common of the carbonate species found at Prospect and the only specimens that the speaker had been able to locate were in the Australian Museum collection. These were in the form of

columnar masses sometimes containing strontium and were generally found filling prehnite-lined vughs. They showed unusual colours, sometimes violet although more commonly white or brown.

Barite was the last of the minerals to crystallize in the vughs and is very rare, the speaker has only seen one specimen in a private collection. It formed tabular crystals in groups up to 1cm across, sometimes as rosettes of pale-brown transparent tabular crystals up to 4mm and also similar rosettes on drusy marcasite.

Calcite occurred usually in massive form in vein or joint fillings which occasionally extended beyond the edge of the chilled margins of the intrusion. Apart from prehnite calcite is probably the most common of the late-stage minerals found at Prospect. It was not common as crystals which if found were as rhombohedra up to 1cm in diameter, only occasionally larger with some showing internal colour zoning parallel to the crystal faces.

Chabazite is another one of the Prospect zeolites and the particular variety found there is now known as chabazite Ca. It is rare and was only found in 1mm crystals although the speaker noted that a specimen of chabazite on display at the Symposium had crystals of about one centimeter in size. Upon asking the origin of the particular specimen Brian England was advised that the specimen had been obtained from a dealer on the Internet who had obtained it in turn from a collector who had worked at Prospect.

After expressing some reservations about the origin of the chabazite specimen with large crystals as being from Prospect Brian England was advised by members that collectors or workers at the site in earlier years also occasionally announced having found stilbite specimens, the presence of which at Prospect the speaker has not authenticated. John Smedley then advised that back in the 1970s zeolite specimens from India were already quite common and cheap and to his knowledge were often being used as a swopping tool and traded among collectors and workers at Prospect for specimens from there. This may have led to collections supposedly of Prospect specimens containing specimens of stilbite which may have a less than certain origin. In conclusion Brian England advised that he would reserve his decision on the presence of stilbite at Prospect, - unless the specimen was attached to matrix which would allow its provenance to be established with certainty.

Chlorite group minerals are very common at Prospect usually forming small moss-green coralloidal masses up to 5mm on analcime.

Heulandite is another one of the zeolites which has occurred occasionally at Prospect. Microcrystals resembling heulandite have been found associated with chabazite, analcime and chlorite on prehnite.

Laumontite has been found at Prospect although the speaker was not able to locate any specimens when he was preparing his article. However the Australian Museum has a single specimen in its collection which shows well-formed prismatic crystals of laumontite completely replaced by prehnite.

Montmorillonite and **Natrolite** have been found in earlier days, the montmorillonite in large tan-coloured masses although not ideally as a collectable being fragile. The natrolite has been found as terminated crystals up to 2cm long in vughs up to 15cm across.

Large masses of white to blue-gray common **Opal** filling pectolite-lined cavities to about 20cm diameter were found in the earlier days.

Pectolite is another one of the minerals which Prospect is famous for and the speaker was able to point to a very spectacular specimen on display at the Symposium. Usually it formed large compact masses of radiating white fibrous crystals up to 12cm and nearly always completely filling vughs. It was commonly found associated with apophyllite.

Phillipsite, another zeolite, was always rare and never conspicuous forming prismatic crystals up to 2mm in length usually scattered on the surface of prehnite. The speaker suggested that if members were to closely examine the surface of any Prospect prehnite specimens they were likely to find fine crystals of chabazite, phillipsite and certainly pyrite.

Prehnite is the mineral that Prospect is the most famous for and the intrusion is certainly one of the World's premier localities. It is the most spectacular of the secondary minerals forming large mammillary to botryoidal crusts of compact radiating crystals up to one meter in diameter and showing astonishing colour variations from white, buff, various shades of green and yellow to browns and even black.

Referring to some of the lesser common minerals **Pyrite** whilst not plentiful is fairly ubiquitous and found in association with many of the other minerals usually as a scattering of small cubes up to 1mm in size on the surfaces. In early days spherical groups of pyrite crystals up to 7cm in diameter were being found. **Quartz** is another mineral which was not abundant but was found usually associated with plagioclase in cavities. Another carbonate found at Prospect is **Siderite** and although it is much less common than calcite it tended to be more noticeable due to its strong colour and sometimes iridescent surface due to its gradual oxidation to haematite.

Since he prepared his 1994 article Brian England has been alerted to the presence of **ilmenite** in the lower levels of the intrusion. Large plates of ilmenite with well-formed crystals have been found although these have apparently been very difficult to extract from the parent rock and the speaker was not aware of any specimens in Museum displays.

Gold at Prospect. Dieter Mylius

Dieter Mylius read out a report about the Boral Company's '*First Sixty Years*'. The report related that one afternoon in 1961 the manager of Prospect Quarry was sitting quietly in his office in Greystanes when Bob Hooper the quarry foreman burst in to announce that gold had been discovered on Prospect Hill !. The manager was sceptical but the foreman was insistent and they decided to stake claims all over Prospect Quarry and for good measure all over the Styles Quarry next door. They also decided to have assays done and the very first sample tested was found to contain gold. So gold has definitely been found at Prospect. However the second sample did not contain any gold and since then no more has been found and the episode became known within the Company as 'Hoopers Folly'.

James Dwight Dana's visit to Australia in 1840. Paul Carr

In 1839-1842 the United States Exploring Expedition of six ships commanded by Lieutenant Charles Wilkes traveled all around the Pacific the U.S. Congress having decided that the nation should take on some leadership in the Pacific Ocean generally 'showing the flag' and also mapping coastlines. Accompanying the Expedition was James Dwight Dana, as one of the scientists. The Expedition came to Australia in December 1839 and arrived in Sydney late at night sailing into the Harbour in some disregard of regulations in place at the time due to concern over Russian ships entering. Dana disembarked and stayed for two months whilst the ships went down south to map some of the Antarctic coast. During the time that Dana was in Australia he traveled around a fair amount, down the Illawarra coast, through the Hunter Valley, and also visited Prospect. He collected a few samples which went back to America and whilst most of Dana's samples would have been eventually sent to the Smithsonian Institute to the speaker's knowledge no-one has not been able to find record of the Australian specimens.

During the forthcoming Society Field Trip to the South Coast members will be shown sites which Dana visited and made sketches of geological features in 1840. Continued quarrying since that time may have made the sites no longer resemble the sketches however.

The weathering of olivine at Prospect Quarry

Peter Williams

Peter Williams advised that his contribution to the Symposium would come from the Law. Whilst he had never collected specimens from Prospect Quarry he was engaged as a consultant by the Boral company some time ago with respect to a legal case that the company was conducting against the Environmental Protection Agency. The legal argument was due to a particular geochemical feature of the weathering of the rocks at Prospect. The picrite rock happens to be comparatively iron-poor and the olivines are exceptionally magnesium-rich. When iron-rich olivines weather they generate iron oxides and silicic acid, the latter just washing away in solution. When magnesium-rich olivines weather the silicic acid is still produced and washes away but leaves magnesium hydroxide which is an alkali thereby producing alkaline groundwaters with pHs greater than 7 - up to 10 or even sometimes to 11.

The legal problem arose because there was an eager beaver in the EPA who knew a little, but not quite enough, about pH. The EPA official was determined and made the pronouncement that natural water had to be pH 7, neutral. (This disregarded the fact that 'natural' water in the form of rain has a pH a little less than 6 due to the presence of carbonic acid from dissolved CO₂). Accordingly the EPA said that the Boral company was polluting the environment by discharging alkaline water from their site and should add hydrochloric acid to the water to neutralise the alkaline content. This was absolute nonsense but the EPA view prevailed, Boral lost the case and to this day are still required to monitor the quality of the water which they pump out into the local drainage channels to Toongabbie Creek.

The George Dale Collection

Jolyon Collas

Jo Collas referred to an issue of the Gold, Gem & Treasure Hunter magazine of April 1990 in which there was an article describing the George Dale mineral collection which at that time included a mouth-watering selection of Prospect specimens. The article was printed about two years before the collector passed the collection to his family in preparation for its sale.

Two excerpts from the article were read out *'At last count George had amassed over 30,000 specimens with a total weight of over eight and a half tons. 80% is Australian material and included in this is the largest collection in the World of prehnite and associated minerals from Prospect, New South Wales. Quarrying at Prospect began in 1908 and many of the specimens in the collection were obtained, not by George, during the first years of operation. Minerals collected included prehnite, pectolite, opalite, quartz crystals, calcite and combinations of these and many others. Also found in the early days were natrolite, analcite, apophyllite, augite, nepheline, purple aragonite, chalcedony, ilmenite, pyrite, marcasite and barite. All of these minerals are well represented in the collection in the form of World-class museum specimens and vugs measure 60cm by 60cm and weighing more than 100 kilograms.'*

Further along in the article it says : - *'Prospect prehnite is World-famous and comes in many colours and botryoidal masses and vugs. The colours are in every shade of green, yellow, lemon-yellow, pale brown, deep yellow-brown, pale straw, black, almost colourless and quite colourless and all come in curved tabular crystals. Pectolite occurs in dense radiating masses of fragile pure white crystals in very large vugs and also narrow seams. Magnificent calcite crystals are associated with the prehnite and pectolite in rosettes, cleavage masses, dog-tooth and nail-head varieties..... Analcite, natrolite, apophyllite, ilmenite, aragonite, siderite, barite, pyrite and marcasite are also found in minor amounts and associated with all minerals.'*

This was what George Dale had in his collection at that time and the speaker believed that it ended up in Inverell and since the article was written in 1990 and George Dale then was 68 and possibly by now has passed away the collection is unfortunately likely to be history.

Prospect specimens in the Australian Museum Lin Sutherland

Lin Sutherland advised that there was a large amount of Prospect material originally collected by Oliver Chalmers and his assistants through the 1940s now in a store in a 'back lot' at the Australian Museum. It is a massive collection with all sorts of specimens which to his knowledge is just being stored and not examined at all. It is a currently untapped resource effectively waiting for someone to start cataloguing it.

The 'Lots'a'Rocks' mineral shop. Graham Ogle

Peter Williams asked if any members present could inform him if they knew what had happened to a dealer business called 'Lots'a'Rocks' which had a very fine collection of Prospect minerals and which had operated in Coffs Harbour for many years. Graham Ogle was able to report that the proprietor, John Kennedy, had passed away some four years ago but that his wife was still in the same house and up to two years ago when he had last spoken to her the collection was also still there. The business had been at Inverell in earlier years and may have had some dealing of specimens with George Dale at that time but the mineral shop had not done very well and the Kennedys moved to Coffs Harbour. Peter Williams commented that it would be an enormous shame if the collection that he had seen were not to be preserved intact.

Collecting at Prospect Arthur Roffey

The year was 1964 and Arthur Roffey came to an interest in Prospect after a conversation with Albert Chapman. On his first visit to Albert's house Arthur was introduced to Prospect minerals and even although at that time the speaker's interests were primarily towards lapidary work he decided to visit the quarry to see what could be found. Albert advised about the mode of entry to the site which in those days involved a friendly introduction and the presentation of a couple of bottles of beer to the gate-man. After a few recommendations from the gateman about being careful about some of the areas in the quarry the speaker was able to look around and was quite impressed with the material clearly available.

Subsequently Arthur Roffey met Barry Cole at the Parramatta Lapidary Club and the two collectors proceeded to make regular collecting trips to Prospect Quarry at least once a month. This was in the later 1960s and 1970s and was a time when as long as the collectors did the right thing there were no hassles about being given permission to enter the site. Members of the Parramatta Lapidary Club went to Prospect quite often and to the speaker's knowledge quite a few of the members in those days had very fine collections of Prospect minerals. A few examples of the Parramatta Club's collection had been brought in by John Behrens for the display table at the Symposium. Most of the other clubs in Sydney at this time also made regular trips to Prospect. It was a well-known area and there was no trouble getting into the site.

Arthur Roffey mentioned a few more notable specimens or materials that he remembered collecting in the early years at Prospect such as an amount of large pieces of deeply coloured violet chalcedony which to him at that time, still with a primary interest in lapidary work, was ideal cutting material. What would have been one of the best marcasite specimen that the speaker has ever seen was in Albert Chapman's collection but unfortunately on one visit to his house Albert asked "Have you ever seen one of these?" pointing it out in one of his cases and unfortunately in attempting to pick it up Albert found that the specimen fell completely to pieces immediately!. As happens to a lot of marcasites, it had become just a shell retaining its shape as long as it was not touched but falling to pieces as soon as it was.

One of the finest Prospect specimens that the speaker has owned was a large pectolite that was not self-collected but given to him by Demetrius Pohl, the American mineralogist and collector then living in Castle Hill and from whom Arthur Roffey had bought his first mineral collection. Demetrius Pohl was returning to America and upon a visit from the speaker before he left offered the pectolite which was sitting on his verandah at the time. Unfortunately the specimen was inconveniently large and Arthur later gave it to one of the lapidary clubs.

Collecting trips to Prospect were Arthur Roffey's earliest experiences in mineral collecting and between Albert Chapman and Eric Stevens, a Society member who now lives in Brisbane, the speaker learned a lot about minerals and a lot about Prospect.

Collecting at Prospect

John Smedley

John Smedley was also able to refer to his early collecting at Prospect accompanying the Parramatta Lapidary Club and on one such trip remembered how a member Jack Thompson started working with a sledgehammer on a mass of pectolite about 3x4x5 feet. He spent the whole time of the visit working on the mass to break off suitable pieces and promised to give John Smedley a sample but unfortunately John is still waiting !. At these times the truck drivers who carried the loads of road metal out of the quarry workings were a useful source of specimens with prehnite sometimes being used almost as a currency. Apparently specimens may have been used on occasion to exchange for packets of cigarettes in a petrol station that used to be on the Great Western Highway near to the entrance to the quarry. Certainly the petrol station had a large display cabinet about 12-15 feet in length, 4 feet high and 3 feet deep which was full of specimens.

John Smedley had prepared a Power-Point presentation about Prospect and proceeded to work through it providing more background on the early and then later history of the area. Governor Arthur Phillip had explored the area and initially named the elevation 'Bellevue Hill'. Since Bellevue means 'Fine Prospect' the site gradually became known as Prospect Hill and then finally just Prospect. A number of notable people have visited Prospect over the years. By the 1820s roads in the local area were being paved with material quarried from the Hill and in 1822 a French geologist L.Lesson visited and examined the intrusion and wrote a report. Whilst the speaker had not been able to find references to James Dana's visit he had found the story of Charles Darwin's in 1836. Darwin was on his around-the-World tour on the ship Beagle having left England in 1832 and towards the end of his voyage stopped at Sydney Town for a period.

Larger-scale commercial quarrying was commenced at Prospect in 1883 by Sperring and Partners and in 1901 a branch rail line was constructed from the main east-west line at Toongabbie to the quarry. Not only did the line carry gravel from the site to many parts of Sydney but it also carried workers to and from the quarry until it closed in 1926. Referring to Albert Chapman's collecting at Prospect the speaker mentioned the eulogy about Albert provided by George Stacey which related how as a young man without a car Albert used to take the train to Toongabbie and then hitch a ride on one of the gravel trucks heading into the quarry to do his collecting.

Another historical link to Prospect was provided by T. Edgeworth David the famous Australian geologist who during the early 1920s used to take students from the University of Sydney to conduct geological tours at the quarry. One of the speaker's images showed a group of students examining a wall of the quarry, the ladies clad in the very long wide-bottomed dresses of the period. Edgeworth David had been involved in the First World War on, or under, the Allied trenches supervising deep mining to plant explosives under the enemy positions. This activity has been illustrated by a recently-made film 'Beneath Hill 60'. Edgeworth David became the primary geologist supervising the mining because of his experience in Australia which was regarded more highly than that of the English. Apparently on one occasion upon being lowered down one of the mining shafts in a small cradle the rope snapped and David fell about fifteen feet injuring himself fairly seriously. Upon rescuers going down to help him and get him into another cradle and start hauling him up David in spite of his injuries called out for them to stop since he wanted to examine some of the strata in a section of the shaft wall that he happened to be passing at the time!. This suggests the kind of determined person that he was. After that he was forbidden to go down any of the shafts but still served as the chief geologist on the Western Front until the end of the War.

Into the 1900s and the quarrying companies had changed ownership or been taken over with more modern equipment installed including the building of larger steam-driven machinery. Later views were shown of the quarry into the 1930s when two million tonnes of dolerite were being taken out per year. Also shown was a view of the Greystanes Homestead Gates which were retained for many years as the main entrance gates on Greystanes Road into the BMG/Boral company property. They had to be widened to allow trucks to enter the quarry.

Moving on to the present day a number of views were shown of the modern quarry and plant with by now subsidiary industrial and commercial development in the area.

Since John Smedley advised that nothing could speak louder than the minerals themselves he finally showed a series of views of superlative examples describing aspects of each as he worked through them. After concluding his Power-Point presentation and display of images the speaker spent several more minutes regaling the members with anecdotes from his collecting experiences at Prospect, the trading and examining the minerals from there and interactions and dealing with other collectors.

Collecting at Prospect Peter Exton

In 1958 Peter Exton had just left school and joined the New South Wales Lapidary Club. There was a Field Trip to Prospect Quarry which would be his first chance to collect any minerals although at that time he was more interested in finding some prehnite as lapidary material to polish. Upon arrival the party were gathered together by the trips leader, not for a Safety Induction lecture but to advise the members what to look for. The speaker was impressed with the industriousness and determination of the more seasoned collectors two of whom were working on an enormous boulder taller than himself and no doubt weighing many tons which contained a vugh, unfortunately for the collectors, on the underside of the boulder. Accordingly the collectors had to have dug a deep hole in the soil alongside the boulder to get at the cavity underneath it and were working 'heads-down' in the hole but gradually managing to extract an amount of prehnite.

After some time Peter Exton was given a small piece of prehnite from the boulder which along with a specimen of analcite both of which he had kept and had brought to the Symposium to display, were the only notable specimens which he obtained on his first visit to the quarry. Subsequently he was able to return on other occasions and was able to find a lot more prehnite, still mainly to use as polishing material.

At the conclusion of a very comprehensive Symposium and presentation of a large amount of information, personal experiences and anecdotes about the Prospect Quarry, its minerals and collecting there members were invited to examine the display of impressive specimens which had been brought in.

MEMBERS: Since the Symposium gathered together and presented so much information on Prospect it has been suggested that this should be collected together with the view to compiling an article to be published in the **Australian Journal of Mineralogy**. Accordingly any members with information already given to the Symposium or anyone with additional information or anecdotes are recommended to contact either John Smedley or any other Committee member to advise or discuss what they can contribute and to get the information recorded.

FORTHCOMING EVENTS

Update to the previous notice

SALE of the DOUG BALL MINERAL COLLECTION

In Deepwater on the New England Highway between Glenn Innes and Tenterfield.

Over Saturday and Sunday the 2nd and 3rd of July 2011

The following notice has been provided by Steve Dobos of the Queensland Mineralogical Society.

“As you may know, Doug Ball (*Mr Tumbles*) lost his battle with cancer earlier this year. Lesley Ball has decided to sell off the stock in the mineral section of their store at Deepwater, NSW, including specimen boxes, mineral stands, and other related sales and display supplies. In addition, Lesley will be selling off Doug's private mineral collection, on a specimen-by-specimen basis. These are all top-shelf specimens, Australian and International. Some of you may have seen parts of this collection, which were on display in their store in Brisbane some years ago. Sales will be strictly cash or credit card, but the price of some of the specimens may be negotiable.

Doug's collection will be on sale in the shop at the old Norco Building, in the heart of Deepwater, on the NE corner of the main crossroad (New England Highway and Young Street), opposite the Commercial Hotel/Motel. The sale will start at 10am, ending at 4pm, on both Saturday and Sunday, 2nd & 3rd of July and may continue for several days thereafter. The venue will be well signed.”

A detailed list of some 320 specimens for sale with sizes, sources and prices has been provided by Steve Dobos. The list can be provided to members electronically or hard copies can be printed by (the N.S.W. Secretary) George Laking and sent to anyone on request. In addition to the listed specimens there will be a variety of lower-priced items and other mineral-related materials.

Inquiries to Lesley Ball at the store, postal address : -
 ‘Mr Tumbles’, 34 Young Street, Deepwater, N.S.W. 2371
 telephone (02) 6734 5213, mobile 0417 077 842
 e-mail mr_tumbles@hotmail.com
 Further information also from the Website : - <http://www.mrtumbles.com/>

BLAXLAND GEM & MINERAL CLUB GEM SHOW

Saturday & Sunday, August 20th and 21st 2011

Displays of lapidary work and gem, mineral and crystal sales.
 Refreshments available.

Glenbrook Community Hall
 Great Western Highway, Glenbrook, NSW
 (Next to Glenbrook Theatre) Just west of Information Centre.

<http://www.freewebs.com/blaxlandgemmineralclub/BGMCshow.htm>

8 am to 4 pm Daily
 Entry: Adults: \$3 Children \$1

CUMBERLAND GEM & MINERAL SHOW

Over Saturday and Sunday the 27th and 28th of August 2011
 in the Roselea Community Centre, Pennant Hills Road, Carlingford.

SALES of jewellery, gemstones, beads, opals, mineral specimens from all over the world,
 tools and equipment for lapidary and beading work, metaphysical and healing crystals.
 Displays of mineral specimens, cut & polished stones, carvings & gemstones.

GEMKHANA 2011

The NSW State Gem, Jewellery & Mineral Show

To be held at Cessnock over 1st - 3rd Oct 2011 in the
Cessnock Indoor Sports Centre, Mount View Road, Cessnock
Saturday and Sunday, 10.00 a.m. to 5.00 p.m., Monday 9.00 a.m. to Noon.

Featuring displays of gemstones stones, jewellery, carving, enameling, minerals & fossils.
Dealers. Tailgaters. Displays. Demonstrations. Field trips.

Inquiries to Doug Endersby on telephone (02) 4990 3837
or e-mail d.endersby@bigpond.com.au
or to Arthur Roffey on telephone (02) 4572 5812

GEMBOREE 2012

AUSTRALIA'S 48TH NATIONAL GEM AND MINERAL SHOW

Easter 2012 from the 6th to 9th of April 2012.

In the Bundaberg Showground, Burrum Street, Bundaberg, Queensland.
Hosted by the Bundaberg Gem & Mineral Society Inc on behalf of the
Queensland Gem Clubs Association and AFLACA.
Lapidary traders, tailgating stalls, entertainment, refreshments,
working demonstrations, displays, lectures, tours.

Everyone Welcome

Camping available on site. Booking enquiries to P.O.Box 5886 West Bundaberg 4670
or e-mail bundyemboree@yahoo.com.au
