

BRITISH MICROMOUNT SOCIETY



NEWSLETTER NO. 33 OCTOBER 1992

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THE NEW CHAIRMAN : HIS FIRST THOUGHTS John Pearce

It's quite interesting to reflect on the nature of the BMS and its membership. It consists of a very friendly group of people, who are very open to sharing their knowledge and experiences and are keen to avoid formality and unnecessary bureaucracy. About half its members meet once a year at the Symposium, and in recent times the BMS has spawned three local groups which meet on a more regular basis.

Many of its members are also members of the Russell Society, historic mines associations and local mineralogical/geological groups. Additionally, since most members are amateur collectors, they also have much and varied expertise to offer from their vocational and professional lives. The potential of our national society is therefore considerable and I am pleased to be your chairman at a time when we can look forward to a period of further development.

Members' responses to Mick Wolfe's questionnaire (reported in the last Newsletter) indicated their general satisfaction with the way in which the Society is operating and where

they would like to see further developments. During Mick's chairmanship, the Society has not only consolidated its position, but it has also developed in a number of interesting ways. For example, the promotion of an issue of the *UK Journal of Mines and Minerals* to celebrate our tenth anniversary, was of benefit to both BMS members and the wider community of mineral collectors.

It's interesting to look back on the BMS' aims as stated in our 1984 constitution (I bet not many of you have read that recently, or can even find it). The main focus of these aims is to promote contact between micromounters in the UK and to encourage the development of micromounting as a branch of mineralogy, through the publication of a newsletter and occasional field meetings and symposia.

Now that the BMS is firmly established, perhaps we should add a further general aim:

- **promoting mineralogy in the UK.**

This aim could be achieved in a number of ways, for example:

1. Increased contact with other national mineral organisations such as:
 - national mineral museums,
 - the Russell Society,
 - journals such as the *UK Journal of Mines and Minerals* and the *Journal of the Russell Society* and
 - mineralogy/geology departments of UK universities.
2. Publication of some simple background, mineral-related papers to support our own members, but also making them available to other mineral collectors outside the BMS. Any publications would have to be realistic in terms of time, effort and cost.

I should like to develop this idea in the next Newsletter by providing some specific examples.

EDITORIAL

There have been plenty of people who light heartedly (I think), have informed me of the pitfalls of becoming editor of the BMS Newsletter. I have been warned that it's difficult to please everybody; that obtaining articles is like extracting blood from the proverbial stone, and that other members are inclined to flee in all directions whenever the editor approaches. In spite of these dire warnings, I enjoyed assisting Mick Cooper with compiling Newsletter 32, and I've also enjoyed Number 33 - my first solo attempt.

As a BMS member of only 18 months standing, I am particularly impressed with the sheer quality of our Society. The high attendances at the annual Symposia demonstrates the commitment of a large number of our members, and I will venture to suggest that their cumulative knowledge constitutes an unrivalled data bank in the field of contemporary British topographic mineralogy. It is an unfortunate fact of life that it would be difficult for so many of us to meet in one place more often than once a year, and for this reason I believe that the Newsletter is the Society's most vital organ of communication.

First and foremost, the Newsletter is precisely that - a newsletter! It should therefore include news of members, their interests and activities, so please let us know about your collecting trips, mounting methods, cataloguing systems etc. Many members have specific research interests; let us know if you are looking for any particular information or specimens - fellow members may be able to help. Contributions do not have to be written in jargonese and they need not be directly about microminerals. Also, if anyone would prefer to provide me with a set of rough notes, I will be more than happy to convert them into a complete article. In short - I believe that we should all be sharing our ideas and information - technical or non-technical - with one another, and there is no better way to do this than through the Newsletter.

Finally, I am sure that I speak for everyone in thanking Mick Cooper for his services as Newsletter editor over the past few years. Looking through the backnumbers kindly supplied to me by Messrs Cooper and Wolfe, all I can say is that I hope I am able to maintain his high standards in the future.

ELEVENTH BRITISH MICROMOUNT SYMPOSIUM - 19 & 20 September, 1992

Roy Starkey

This ever popular event got off to its usual enthusiastic start with doors opening to greet delegates at the earlier time of 9.00am. Each year it seems that members make even greater efforts to arrive early in pursuit of a "pole position" parking spot near the Geology Department entrance. I estimate that delegates travelled around 8,000 people miles to be at the Symposium - many making a very early start on the Saturday morning!

We had marginally more bench space to go round this year, with delegates numbering only 80 or so, but minerals and microscopes soon expanded to take up the available capacity in the lab. After unpacking and a cup of coffee, delegates gathered in the lecture theatre to hear chairman Mick Wolfe welcome old friends and new members to the eleventh Symposium. The formal proceedings commenced with a most interesting "Update on Zeolites", by Alan Dyer. Alan covered the paragenesis, composition and structure of zeolite group minerals. To illustrate the structure, he used a technique not seen previously at the Symposium - that of fluorescent molecular models floating in water (in a darkened lecture theatre). He then moved on to explain how zeolite properties are utilised in industrial applications such as soil beneficiation, nuclear waste recovery, and catalysis. Synthetic zeolites, manufactured in the laboratory, have subsequently been found as naturally occurring mineral species. It now seems that the definition of zeolites may have to be extended to embrace minerals with beryllium, phosphorus or cobalt in the tetrahedral position, as well as the traditional silicon and aluminium. Alan concluded by reviewing the relationship between malt whisky distilleries and Scottish zeolite localities - the main relationship being that mineral collectors prefer to go looking for zeolites near distilleries. Localities recommended on this basis include Touch Hills (mordenite), Earlsburn Reservoir (heulandite and stilbite), and the road junction near Talisker distillery (calcian analcime). Recent fieldwork has identified mordenite and stellerite occurring on the coast at Tod Head Point.

Doug Morgan provided a spectacularly illustrated account of the fascinating world of rock

thin sections. Doug's training as a metallurgist had brought him into contact with slag mineralogy (the silicates, not the supergenes) and this led to a life-long interest in optical mineralogy. The process of preparing rock thin sections using only the most basic of equipment was explained, and reference made to a fellow enthusiast in Scotland who has single-handedly produced over 5,000 sections using a hand-powered saw and grinder. Doug provided a number of delegates with materials to go away and make their own first sections - perhaps next year we shall see the results! To finish off the session, Doug showed us the beautiful interference colours obtained when viewing anisotropic minerals between crossed polars, building to a climax of "art-form quality" transparencies of cuspidine in phosphorus slag, azobenzene and barium platinocyanide. As is often observed, the resourcefulness of BMS members has to be seen to be believed (through a microscope of course).

Roy Starkey returned as a speaker to give a further installment of "More Mineralogical Rambles North of the Border", this being an account of fieldwork carried out in Scotland during 1991 and 1992. As usual, the itinerary was followed at break-neck speed, but a comprehensive hand-out was made available to members whose shorthand wasn't up to noting six figure grid references and Gaelic place names. Starting in the south at Coatsgate Quarry near Beattock, the route followed north via Mannoeh Hill, Sitean Sluagh and Glensanda Castle to Mull. Ben More provided some spectacular zeolites, and the Loch Scridain area gave good euhedral crystals of sapphire. Heading further north still, Glen Urquhart turned out to be a little disappointing, but Moniak Burn near South Clunes yielded interesting calcite crystals. The well known working quarries near Elgin - Gedloch and Netherglen - were visited for barite, pyrite and fluorite. The Aberdeen area (Pitscurries Quarry and Laverock Braes Farm) produced tourmaline pegmatite and manganese respectively. Sorties into the Cairngorms near Tomintoul and to the Head of Glen Isla were unsuccessful but Roy has vowed to return, armed with better information. Shierglas Quarry near Blair Atholl has yielded some very interesting material including nicely coloured fluorite, sphene and possible celestite. The tour ended at Goat Quarry, Aberdour where some excellent pyrite and nice amethyst were collected. The talk was supplemented with a benchtop display of hand specimens throughout the weekend.

After lunch, the now traditional practical workshop and mass-swap session got underway. As usual there was much to be seen and too few hours to cover the ground. The following selection of items is not exhaustive - so apologies to anyone who feels left out.

Kemp Meikle had a splendid fist-sized lump of rock from Gairnshiel Bridge covered in tan-coloured bi-pyramidal wulfenite crystals. Trevor Bridges had rare nickel minerals from Dow Scar High Level, Peter Mine. Neil Hubbard had several excellent phosgenites from Lossiemouth and Hilton Braithwaite, Mick Wolfe and others had collected nice yellow sphene from Loanhead Quarry. John Dickinson had his usual superb selection of mid-Wales and Caldbeck Fells supergenes. Also active in the Lake District, Mike Leppington had collected olivenite, agardite, adamite and phillipsburgite from Potts Gill. Beryl Taylor showed a splendid native copper and cuprite encrusted by other secondaries from Vaughan Mine, and Max Wirth and Mike Rothwell had eulytite from Buckbarrow Beck, Cumbria. As mentioned above, Alan Dyer and Oneta Wilson were exhibiting mordenite and stellerite from Tod Head Point. Richard Bell had a spectacular native silver from Red Gill, and this had grown spikey crystals of acanthite since being collected less than 12 months ago. The Wallace family team had chalcociderite from Stowe's shaft and ettringite in a concrete from

Cornwall. Once again, John Fisher had a few pyrrargyrite crystals from Herodsfoot, and Isabel Geldart had a fine native copper with associated secondaries from Eaglebrook Mine. David Whipp had some interesting material from Warden Point, Isle of Sheppey - when he finds out what it is perhaps he'll write a note for the Newsletter! Steve Rust had collected serpierite and ktenasite from Ystrad Einion, and Harry Day had nice carbonate-cyanotrichite and chalcoalumite from New East Wheal Russell, Tavistock. Perhaps the most striking specimen, however, was Harry Day's micro of a blade of wolframite pierced by transparent dark green tourmaline needles - again from New East Wheal Russell.

In the course of the afternoon, Peter Braithwaite ran a practical session on "How to Mount Micros Properly" - amidst a chorus of "where's your blu-tack?", and Mick Cooper offered a critical appraisal of members' photographic efforts, together with hints and tips on lighting, equipment etc. Our thanks go to both of them for taking the time to organise these sessions.

The afternoon ended with the Specimen Auction which as usual, provided humour and entertainment as well as raising £170 for Society funds. Perhaps the highlight was the point when, interrupting bidding, the auctioneer paused to remind the audience that a similar specimen had sold for £25 last year. He was promptly corrected by Richard Bell - apparently bidding £28! This misunderstanding was swifly resolved when Richard anxiously explained that he was merely providing a point of information.

An enjoyable evening was spent in the Barendon Room of the Charles Wilson Building with the Buffet reception followed by Ken Luff's quiz. The quiz proved to be quite taxing, and there was no doubt that the estwings were out for the "experts" table. In the event, the bottle of whisky was won by a consortium led by Mike Rothwell, David Green, Jean Spence and Co. Well done!

Sunday morning started with the AGM which was transacted in record time. Full details of the AGM are reported separately. The outgoing chairman, Mick Wolfe, reviewed the success of the Society during his office - the Reference Collection has passed the 1,200 mark; membership has increased by 20%; museum visits and visits to members' houses have been introduced, and the Collection Catalogue has been published. Society funds have grown from £900 to £2,500 and subscriptions have only increased by 50p to £4. With credentials like that one is tempted to nominate the man for Chancellor of the Exchequer, given the current economic difficulties!

Once again Peter Braithwaite organised a micromount competition but unfortunately the number of entries was again very low. The prize was won for the second year running by Ivan Peak. Mike Rothwell provided a light-hearted look at what was interesting at the Symposium, setting a new style by opening his address by telling part of a joke. He then changed the subject to minerals, and finally concluded the session by completing his joke. The technique works - people don't walk out during the talk - future speakers please note!

The afternoon was spent catching up on news, views and last exchanges before the long drive home, which for some of us started with a 40 minute traffic jam down the Narborough Road out to the M1/M69 junction. C'est la vie! (That's French by the way - for 1992, Maastricht and all that.) See you next year!

BRITISH MICROMOUNT SOCIETY
ANNUAL GENERAL MEETING
Leicester University, 10.00am. 20 September, 1992

59 members were present. The Chairman was Michael Wolfe.

1. Apologies for Absence

Apologies were received from Rex and Norma Bingham, William Bolton, Michael Cooper, David Green and John Houghton.

2. Minutes of the AGM of 22 September 1992

The minutes having been circulated in Newsletter number 31, the Chairman asked that they be taken as read. This was proposed by Martin Stolworthy, seconded by Harry Day and passed unanimously.

3. Matters Arising from the Minutes

No matters were raised.

4. Treasurer's Report

Sidney Freeman presented the Receipts and Payments account for the year ended 31 May 1992. He explained that the reduction in the final balances from '91 to '92 was due to a "one-off" grant to the *UK Journal of Mines and Minerals*, and to a pre-payment for the Symposium. The costs of the hall, lecture room and refreshment facilities have risen and an increase in the order of £2-3 per person in the charges for the next Symposium may become necessary. The mineral auction this year raised about £173 which will help to offset the deficit.

Sid thanked Mike Rothwell for his help with photocopying, which reduced the cost of producing the Newsletter.

Since the accounts were closed another Newsletter has been paid for, but subscriptions will be received soon and the finances of the Society are healthy.

- Dorothy Merritt queried the discrepancy in the subscription totals of '91 and '92. Sid explained that this was due to an overlap in the receipts from one year to another.
- Vicki Packard commented on the considerable reduction in postage costs compared with '91. The Treasurer said that the '91 figure included postage of the Directory and an additional issue of the Newsletter.

5. The Chairman's Report

The Chairman's report was deferred until later in the proceedings.

6. Election of Officers

The Secretary, Shirley Adrian, the Treasurer Sidney Freeman and the Membership Secretary Pearl Freeman had agreed to serve again. Their re-election was proposed by Peter Reynolds and seconded by Colin Horstman. Michael Wolfe was not seeking re-election and proposed John Pearce as Chairman. He was seconded by Shirley Adrian.

The vote for all four officials was unanimous.

- John Pearce spoke of his reactions on receiving the "Dear John" letter from Mick Wolfe in May. His first thought was "Why me?" - followed by many reasons for not accepting. However, he went on to think about how much he enjoyed his membership of the Society with its friendly atmosphere and sharing of knowledge and experiences, and realised that he wanted to be involved in the development of its potential. On behalf of the Society he thanked the retiring Chairman for all the work he had done. The period of Roy Starkey's chairmanship had been one of "initiation" and Mick Wolfe's one of "consolidation". We now have three local groups which should provide a strong basis for progress.

- Co-opted Members of the Committee

The Honorary Curator Max Wirth, the Archivist Muriel Swindell and the Auditor Michael Leppington had all agreed to continue in office. Malcolm Southwood will take over from Mick Cooper as Newsletter Editor. Ken Luff was unable to continue as Symposium Organiser and a replacement will be sought.

7. The Founder's Cup

This year the cup was presented to our sole member in Scotland - Kemp Meikle - in recognition of his contribution to the Society. He has provided well over 100 specimens for the Reference Collection, written articles for the Newsletter and the Russell Society's journal and is unfailingly helpful to mineral enthusiasts who visit the region.

- Kemp expressed his thanks and surprise and said he was always pleased to see visitors.

8. Chairman's Report

Mick Wolfe reported that membership stood at 174, an increase of 4 on the 1991 figure. New members have joined after each edition of the *UK Journal of Mines and Minerals*, in response to the Society's advertisement. He thanked the Journal's editorial board, who make no charge.

Mick said that the Symposium continued to be the highlight of the year. Its increased cost was due to having to deal with the main university instead of the Geology Department as previously. The auction raised £173 for Society funds and Mick thanked the auctioneer, the organisers and all who contributed items. The raffle brought in £63. Mick congratulated the winner, Kevin Johns, and thanked everyone who bought tickets. This was a successful new venture which will probably be repeated next year.

The Chairman expressed his regret on reporting the death of Bob Weatherall, a member for many years, and extended the sympathy of the Society to Bob's family and friends.

A letter had been received from Eric Otty, the original Newsletter Editor and a mineral collector for more than 25 years, resigning from the Society on account of his wife's and his own ill health. Mick had sent good wishes to them both, on the Society's behalf.

The Mineralogical Society had requested information about the BMS for publication in its bulletin, and Mick had submitted a brief history of the BMS.

1993 will see the publication of the 6th edition of the British Directory of Micromounters including, if possible, a group photo. Amendment slips for up-dating the Directory information will be sent out with the next Newsletter. It is hoped to distribute the Directory with the summer Newsletter.

Last year's questionnaire drew 40 replies, and the results were summarised in Newsletter 32. Some of the suggestions were incorporated in this year's Symposium (e.g. the photograph, the raffle and the workshops) and all have been directed to the relevant quarter. One suggestion called for a volunteer from each sub-group to report regularly to the Newsletter. Mick will do this for the Bircotes group, and asked for a member from the South-East group and the Warrington group to come forward after the AGM.

Mick closed his report with a review of the five years of his Chairmanship. Membership has increased each year and is now about 20% higher than in 1987. Activities such as the Symposium, Newsletter, Directory, Reference Collection and regional meetings were continued. Added to these were affiliation to the Geologist's Association, visits to museums and to members' collections, publication of the Catalogue of the Reference Collection which has grown from 600 to 1200 specimens, sponsorship of the *UK Journal of Mines and Minerals*, and an increase in funds from £900 to £2,500. Unfortunately subscriptions have also increased - by 50p. Mick said that he had received a lot of help, support and encouragement from all the officers and ex-officers of the Society, as well as many individual members. He thanked everyone for making his Chairmanship an enjoyable experience and extended his best wishes to John Pearce.

9. Any Other Business

- a. Mick Wolfe gave the date of next year's Symposium - September 18 and 19, 1993. He also asked members to try to support the forthcoming "Dudley Rock and Fossil Fair" on November 28 and 29, 1992. [Dudley Town Hall, St James Road, Dudley, 10.00am - 5.00pm] at which he will man a stand for the BMS.
- b. Mike Rothwell said that members who had not received their copy of the Reference Collection Catalogue should apply to the Membership Secretary or to him. The Catalogue is very useful for site references.

Mick Wolfe said that a new Catalogue might be produced when the Collection numbered 1500, funds permitting.

Geoff Deverell noted the absence of some minerals that are fairly common at various sites and requested members to check through the Catalogue to see whether they could fill any of the gaps.

Max Wirth, the Collection Curator, recorded his thanks to the Russell Society members who had donated material to the Collection, particularly Brian Young, Phil Jackman and Tim Neall. He also thanked BMS member George Ryback for sending corrections. Only 16.2% of the membership have borrowed from the collection. Max is now collecting references in mineral literature relating to minerals or sites represented in the Collection and would welcome contributions.

- c. The Archivist, Muriel Swindell, requested that members who had borrowed volumes of Goldschmidt should contact her.
- d. Eric Otty's resignation. It was agreed that Eric should continue to receive the Newsletter in recognition of his work for the Society.
- e. Jean Spence reminded northern members that the next Bircotes meeting will be on October 31. [As on page 16, this date has since been changed to November 21]

The meeting closed at 10.50 am.

WELSH MINING NEWS

Malcolm Southwood

The Gwynfynydd gold mine was first worked in 1863 and produced a total of 41,410 ounces of gold by 1914. The mine was closed in 1916 because no further payable ore could be found. Very little gold has been mined in Wales since that time. Attempts to re-open the Clogau St David's mine near Dolgellau in the 1970s and 1980s met with limited and short-lived success. Gwynfynydd produced a further 2,000 ounces of gold in the early 1980s when the very high price of gold led Sir Mark Weinberg, the City of London Financier, to embark upon a six year evaluation of the old mine at a cost of £2 million. In *The Independent* (Saturday June 6, 1992), it was reported that the Gwynfynydd mine has recently been bought by Nick Warrel, who intends to de-water the old workings, install new mining and milling equipment and bring the mine back into production. Warrel managed the Gwynfynydd operation for Sir Mark Weinberg in the 1980s and he believes that the mine contains extractable reserves with a potential value of £31 million.

Meanwhile in Anglesey, the recent mine development program at Parys Mountain has been halted and placed on care and maintenance. The new Morris Shaft has been allowed to flood and staff have been laid off. Attempts to raise money for the completion of the project were unsuccessful and many analysts believe that the project is not viable at current metal prices. I visited the site in May and found that ore and waste from the new workings have been dumped at several sites at the western end of the property (Morfa Du). Some attractive micro-crystals of quartz and ankerite were found, together with some interesting (but non-crystallised) specimens of the polymetallic sulphide ore. Unfortunately, this visit failed to produce any specimens of anglesite for which Parys Mountain is the type locality.

It has recently been announced (*Metal Bulletin*, August 13) that Anglesey Mining has succeeded in raising an additional £620,000 working capital which will secure the future of the company for at least three years. However, it is now seeking a joint venture partner in order to develop the mine at an estimated cost of £25 million.

EXETER SHOW

Colin Firkin

The first South-West Mineral and Fossil Show, organised and hosted by Paul Lowe Minerals of Truro, took place on July 19 at St Georges Hall in Exeter. Approximately 36 exhibitors offered a wide range of minerals, fossils and accessories. Many familiar faces attended and, not surprisingly, Cornish minerals were particularly abundant. From further north, there were plenty of good quality yellow fluorites from Weardale, while George Fletcher was offering an attractive new find of botryoidal goethite with barite from the Wapping Mine at Matlock. I particularly enjoyed Colin Fearson's exhibit of mineral illustrations and "The Rockbreaker Collection" - a selection of various size trimmers. I very much hope that this show will be repeated, as there are few such events in the South West, and it was encouraging to see such a lively show in our corner of the country.

THE SOUTH KENSINGTON COLUMN

Richard Herrington

This short column is intended to highlight some of the recent mineral acquisitions of the Natural History Museum, which continues to add to its collection of around 300,000 mineral specimens at a rate of about 300 to 500 new items annually. This first article describes a couple of items not normally encountered in micromount collections, namely a large crystalline gold specimen and the strange mineral ikaite - a hydrated calcium carbonate - which is unstable under normal display conditions.

One of the more spectacular of recent acquisitions is a specimen of native gold on quartz from the Eagle's Nest Mine, USA. The Eagle's Nest Mine is located in the Michigan Bluff district of the Mother Lode Belt, California, and since 1982 has been producing a series of beautiful lustrous, octahedral-dendritic crystalline gold specimens. The reader is directed to the *Mineralogical Record* vol. 13 no. 6 and *Mineralien Magazin Lapis*, June 1988 for more background details on the locality together with some fine photographs of specimens collected at the mine. The Natural History Museum's specimen, purchased in July 1991, comprises native crystalline gold as distorted cubic crystals and dendritic leaves on a matrix of quartz. The specimen measures 13.5 x 8.0 x 4.2 cm and weighs some 330g. Although not as heavy as the Museum's 700g Latrobe nugget the new specimen is bigger and considerably more striking. The intention is to exhibit the specimen as a "showpiece" item, possibly as part of a proposed "Treasures of the Museum" display.

The mineral ikaite ($\text{CaCO}_3 \cdot 6\text{H}_2\text{O}$) must rate as one of nature's most transient. Originally discovered by Pauly in the Ika Fjord, the mineral was shown to be a high-pressure mineral, unstable at normal pressures and temperatures, but apparently forming in near-zero °C, under-water conditions in the sea or cold-water lakes. Identification of the mineral was only

possible on samples preserved by refrigeration; samples left at room temperature quickly recrystallised to calcite, liberating water. Recent work has shown that the thinolites from the tufa mounds of the Lahontan and Mono Lake basins of the western USA (Shearman et al., 1989; *Geol. Soc. Am. Bull.*, 101, (7), p913-917) and "jarrowite" pseudomorphs (Shearman and Smith, 1985; *Proc. Geol. Assoc.* 96, (4), p305-314) are probably pseudomorphs after ikaite. The true ikaite pseudomorphs demonstrate its monoclinic symmetry (although the crystal forms seem to show almost tetragonal symmetry) and often form radial and branching clusters, particularly in the thinolite pseudomorphs. However, the prismatic forms of jarrowite are often encased in silty nodules. The Museum has recently acquired a jarrowite specimen, recovered from the type locality of the mud in the Jarrow docks, which shows both the nodular and individual crystalline pseudomorph forms and a specimen of radially aggregated crystal pseudomorphs probably collected from the estuarine muds of the Arctic coast of Alaska.

(Richard is not a member of the BMS (yet!), but he is a member of the Mineralogy Department staff at the Natural History Museum. This is the first in a series of occasional articles which he has very kindly agreed to contribute to the BMS Newsletter. He proposes to highlight not only spectacular acquisitions, but also unusual ones. We very much look forward to his column in future Newsletters.)

NORTHERN BRANCH MEETING - JULY 1992

Mike Rothwell

Thirteen members attended this meeting in the Bircotes Library and had an enjoyable afternoon looking at each others' recent acquisitions, exchanging information and generally having a good mineralogical gossip. We were pleased to welcome Nigel Hoppe, who we expect to become a regular now that he is living and working in the north of England, and Malcolm Southwood from Peterborough.

Amongst the minerals on display was a rich and varied lot from Loanhead Quarry, collected by Peter Braithwaite during a trip over the border at Whitsun. These included some very nice chalcocites. Peter's success stimulated plans for another visit to Loanhead which should result in more specimens to admire at the next meeting. Malcolm brought some interesting minerals from South Africa, where he worked until a couple of years ago. One or two of us therefore took the opportunity to acquire some species not found in this country in exchange for some British minerals that were new to Malcolm. The two Beryls (charming ladies!), having "done Scotland" have recently turned their attention to Wales. Their haul gave us the chance to try our hand at identification. Richard Bell and I had been to the Llyn Peninsula and Buckbarrow Beck, so were able to show phosgenite from Wales and russellite from Cumbria.

As usual, the time flew by, so after indulging in the customary feast provided by Jean, it was time to head back over the Pennines. Before reaching Merseyside however, Richard and I had the opportunity to look at some minerals through Nigel's new Leica M10 microscope. This is state-of-the-art stuff indeed; my specimens will never look the same again!

A PROBABLE OCCURRENCE OF CONNELLITE, AT THE GEUFRON MINE, LLANIDLOES, POWYS

Steve Rust

Very rare specimens of the uncommon mineral connellite ($\text{Cu}_{19}\text{Cl}_4(\text{SO}_4(\text{OH})_{32}\cdot 3\text{H}_2\text{O}$; visually identified) have recently been found by the author at the Geufron mine (SN 886.857). This long defunct copper mine is located some 7km WNW of Llanidloes.

The connellite occurs as typical, dark blue acicular crystals, arranged in radial groups to 0.75mm in diameter and aggregated into small crusts to 5mm². It is found on cuprite, and on thin, black, botryoidal, manganiferous crusts. Fibrous malachite is commonly associated with the cuprite. Other minerals found at Geufron (although not in association with connellite) include anglesite, brochantite, cerussite, linarite, pyromorphite and wulfenite.

The association of connellite with cuprite and malachite is a well-known paragenesis, but its occurrence in mid-Wales was unexpected. The origin of copper and sulphate ions is easy to explain, but the origin of the chlorine is less apparent. Small amounts of chlorine may be present in the groundwater. On the other hand, it is notable that pyromorphite ($\text{Pb}_5(\text{PO}_4)_3\text{Cl}$) is a common mineral in the supergene assemblage.

I estimate that the visual identification of the connellite is 85% reliable. There is, however, a remote chance that the mineral is buttgembachite, or possibly another complex copper salt.

KILLHOPE LEAD MINING CENTRE

Trevor Bridges

On the 5th-6th of September 1992, the Killhope Lead Mining Centre in Weardale decided to revive a Victorian tradition by holding a "Grand Mineralogical Exhibition". This took the form of a competition held on the top floor of the Field Centre at Killhope. Entries were invited in a range of categories from single minerals such as fluorite, galena etc to small displays of groups of minerals, all from the north Pennines.

There was a wide range of entries in most but not all of the classes and a wide range of interesting specimens was on display. There was plenty to interest the specialist as well as members of the general public. The competition was judged by Brian Young, and was won by Maurice Hall, a retired hard rock miner.

The event was so successful that an instant decision was made to hold a similar event early in September 1993, so watch this space for dates! Finally, I must say that security was excellent. Guards were on duty for the duration of the exhibition, including overnight, and visitors were not permitted to touch specimens. I shall certainly enter material next year.

MICROMOUNTS OR MICROMINERALS?

John Pearce

During Peter Braithwaite's summary of this year's micromount competition at the recent Symposium, it was agreed (in spite of only three entries) that the competition will be held again next year. However, if this event is to have a future, more entries are needed and it has been agreed that the competition will be promoted through the local BMS groups.

During the discussion it became obvious that a number of members are more interested in the micromineral itself than in its mounting and possibly a parallel competition or activity could be organised at the next Symposium to reflect this interest.

It may be that members want a competition, or possibly they are looking for a greater awareness of what micros other members have brought to the meeting. This would encourage people to look at other members' specimens and to comment on them. We promote this to some extent through the review of "highlights" during the Symposium; however, individual members may value an opportunity to highlight their own specialities at the beginning of the weekend.

If you are interested in such a parallel activity or a competition, please get in touch and let me have your ideas.

CORNISH HERITAGE

About £3 million has been budgeted by the National Trust to "revitalise" the Lizard and the West Penrith district in Cornwall, according to a recent article in *The Daily Telegraph*. In West Penrith, a six-mile strip of coast, centred on the former tin-mining area of St Just and Pendeen, is to become a national industrial heritage site. The objectives of this scheme are to preserve the flora and fauna, manage and maintain the prehistoric and modern archaeological sites, and to provide better public access. The Trust is negotiating to buy parts of the coastline through the Enterprise Neptune Appeal, in order to save important sites from the bulldozers.

The Levant Mine, already an EC heritage site, will become the focus of Cornwall's historic and modern industrial heritage area. What is allegedly Cornwall's oldest beam engine, saved from the scrap yard for £25 will become fully operational by next summer after a £128,000 restoration programme which commenced in 1984. Work on the Levant engine has been carried out by the "Greaser Gang", a group of volunteers from the Trevithick Society. The engine was originally built by Harvey & Co of Hayle. The restored engine consists almost entirely of the original components - only a few bearings and steam joints had to be replaced. The old boiler house is also being restored, although the original boilers were beyond repair. These boilers will be preserved and a compact, modern boiler will be erected behind them to provide power for the restored engine.

RECENT ADDITIONS (Nos. 1201-1250) TO THE BMS COLLECTION

Max Wirth

Several years ago, I collected a specimen from Strontian and labelled it as barite. However, the optical properties made it look like leadhillite, although a chemical test showed no sulphate and I sent it to Edinburgh and asked Alec Livingstone to confirm it as hydrocerussite. It turned out to be calcite (1201) - so much for my expertise! Never mind, the morphology is unusual. To make up for this I scanned some other old bits and pieces and found a nice octahedral green fluorite on calcite (1234) from Limelock Hill in Banff.

Our chairman (Mick Wolfe) gave us a clean smithsonite (1204) from Masson Hill with the usual rounded, vaguely hexagonal habit. I contributed a horribly small specimen of the rare bismuth tungstate, russellite from Corney Fell in Cumbria (1206). It looks a bit like a lichen growth of pale yellow circles on quartz. Tim Neall of Carlisle found other interesting and rare minerals from this site. He gave us eulytite (1243/4) - a bismuth silicate, and bismutite (1245) - the carbonate. Tim has a good eye for rarities and also gave us a well-crystallised spray of philpsburgite (1246) which he recently collected at Potts Gill. Apart from Tim and Mike Leppington, nobody seems to find anything there!

George Ryback presented a splendid beryl (1208) as well as a topaz (1209) from Diamond Rocks in Northern Ireland. Frank Ince entered two unusual wulfenites (1211/2) from the Ball Eye mines in Derbyshire. One of these (1212) has such small crystals that it takes a bit of imagination to spot them. Tony Lee found a textbook reticulated rutile (1216) at the Lanterdan Quarry in Cornwall. He also contributed epidote (1217) and a number of zeolites from Skye. The stilbite (1228) is particularly good. His phosgenite (1230) from Cudderbridge mine shows an unusual habit. Kemp Meikle received some material from the Dean Quarry and spotted gmelinite in it (1232). It is difficult to see but has the characteristic hexagonal lentil shape (my lentils are usually round!). I have labelled another piece from the same source as stilbite (1233), which occurs as tiny rectangular plates. Roy Starkey also called this stilbite, although Kemp disagrees. With two against one, let's call it stilbite for the time being.

Everyone seems to be turning over their old material at the moment and Geoff Deverell presented an interesting chenevixite (1235) from Wheal Gorland - interesting, but not beautiful! His malachite (1239) from Cannington Park is worth recording since it is curled and the site is now closed to collectors. Another unusual addition is the psilomelane (1240) from Dry Gill, a large, soot-black and corraloid specimen. This is rather fragile and, to quote "...found by a visitor to Dry Gill who had carted up a sledge hammer with which he belaboured a lump of white quartz approximately 3-feet cubed for about three quarters of an hour..." and this was the sole result. A further old specimen is phosphouranylite from Wheal Edward (1242).

Mike Rothwell found susannite (1250) at Frongoch Mine. It really looks just like "ordinary" leadhillite, but the BM confirmed it as susannite. I did not believe even this until I had checked the optical properties, but yes, it really is susannite. Finally, Dave Dabney of New Jersey sent me a much travelled specimen of gmelinite (1247) which he obtained from Harry Foy in Northern Ireland. It is the beautiful sceptre variety and I am quite happy to let it come to rest in our collection.

IN BRIEF.....

Mike Rothwell is interested in the crystalline growths that develop on some specimens after collection. Many members will have seen these growths on material from Red Gill. If anyone has similar growths on specimens from other sites, please will they let Mike know about them.

Society archivist **Muriel Swindell** would like to confirm the whereabouts of the Society's nine volumes of Goldschmidt's *Atlas Der Krystallformen* which are on loan to various members. She has a short waiting list of people who wish to consult some of these volumes, several of which have not been returned to her for some time. Please contact her if you are still in possession of one of them.

Kevin Johns is interested in the mines of his home county - Devonshire. He is trying to get hold of a copy of the Northern Mines Research Group's publication (British Mining No.15) entitled *The Teign Valley Silver-Lead Mines, 1806-1880*, by C.J.Schmitz. Can anyone help please? Kevin would also be interested in any information on the mines and minerals of east and south-east Dartmoor.

The next Northern Group (Bircotes) meeting will take place on Saturday, November 21. **Jean Spence** has the details.

Shirley Adrian has asked me to mention the F.L.A.G.S. show, due to be held in conjunction with the Geologist's Association annual reunion. The venue is University College London, and the date is Saturday November 7. (Unfortunately, this means that the event will probably have come and gone by the time you read this Newsletter. If this is the case, the message is that the BMS was one of several mineral societies to have a stand at the show.)

Although **Ken Luff** will not be organising next year's Symposium, he would like to remind members that a date has already been fixed. The twelfth BMS Symposium will be held over the weekend of September 18 & 19, 1993. Many thanks to Ken on behalf of all of us for his excellent organisation of recent Symposia.

The duties of Symposium organiser have now been assumed by a consortium of three members from Norwich - namely **Richard Belson**, **Kevin Johns** and **Martin Stolworthy**. All correspondence in respect of the Symposium is to be sent to Kevin's address. Rumours that next year's Symposium is to be held in the conveniently central location of Great Yarmouth are untrue!

As a result of members' responses at the Symposium, a number of visits to mineral museums have been (or are being) arranged. The dates are still to be confirmed unless stated below. The visits are:

Mineral Museum

Oxford University Museum (Oct. 31)
Russell Collection (BM - Natural History)
Manchester Museum
Hunterian Museum (Glasgow)

Organiser

Roy Starkey
Malcolm Southwood
David Green
Alan Dyer

There were insufficient responses for the other museum visits to proceed. If you did not sign up at the Symposium but are still interested in any of these trips, please make direct contact with the appropriate organiser.

Horst Windisch, chairman of the South African Micromount Society (SAMS), has asked me to draw BMS members' attention to an international body devoted to the study of **slag minerals**. *The International Association of Collectors of Slag Minerals* publishes a quarterly six page newsletter, encouraging the exchange of slag mineral micromounts. The association currently has 36 members in 10 countries. Membership costs \$5 per year and further details can be obtained from Horst at: P.O.Box 17273, Groenkloof 0027, South Africa.

Albert and Marianne Schrandt-Hettinga, of Villa Les Lys, Rue de Rossignol, 30120 Breau, France, are looking for good quality British micromounts in larger quantities. Please write and let them know what minerals you have available and at what price.

Finally, as this is the last Newsletter of 1992, let me wish all our members a very merry Christmas and a happy and successful new year. The deadline for contributions to Newsletter 34 will be February 12, 1993 - so why not wile away the festive holiday with writing an article or two? Many thanks to all the contributors in this issue.

NEW MEMBERS

New members are urged to inform the Newsletter editor should there be any errors in their particulars as noted below:

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