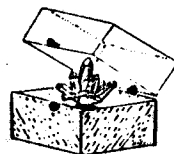


# BRITISH MICROMOUNT SOCIETY



NEWSLETTER NO. 18

NOVEMBER 1986

CHAIRMAN

Roy Starkey 29 Painswick Close, Oakenshaw, Redditch,  
Worcs. B98 7XU

SECRETARY

Elsie Hansford 46 Wydeville Manor Road, Grove Park,  
London SE12 0EW

MEMBERSHIP SECRETARY

Neil Hubbard 122 Cordery Road, Evington, Leicester LE5  
6DF

TREASURER

Sidney Freeman 12A Allingham Court, Haverstock Hill,  
London NW3 2AH

EDITORIAL

Eric Otty resigned the post of newsletter editor at the AGM held during the Leicester symposium (the full minutes of this meeting are published in this newsletter). His place has been taken by myself: my name is Michael Cooper and my first official duty is to thank Eric for a job well done. My address is at the end of this newsletter and I expect this to be of immediate use to all those members who have been promising themselves to write up something for the newsletter 'someday'. For those with writer's block bear in mind that a contribution need not be a completed article; cuttings, quotes, and references to other publications may be equally useful. Just send them to me and I will abstract them as necessary. Don't delay! I love getting letters...

The mineralogical calendar has been a very full one since the last newsletter. The Harrogate and other smaller shows and the summer collecting season should have expanded collections - you now have the winter to catch up on your cataloguing and indexing. Hundreds of people visited the British Museum (Nat. Hist.) and the British Geological Survey (at Keyworth, Notts.) on their respective Open Days. These events were very well organised and fascinating insights into the world of professional earth sciences. Both are reviewed below. Interesting as these occasions were the high point for many was still the BMS symposium at Leicester. This was of especial interest to me as a new member since it was my first - and a demonstration of the democratic structure of the BMS: you join; they make you editor.

On the debit side stands the tragic sudden death of John Fuller of the mineralogy department of the BM(NH). He was a courteous and knowledgeable man, a great believer in the value of the amateur collector. His death is a great loss to all who knew him and to the mineralogical community in general.

Once again the weather smiled on the 86 members making their way to Leicester University in good time for the 10 o'clock start. In what seemed no time at all microscopes, specimens, etc, were unpacked and old acquaintances renewed. Mary Starkey improvising magnificently was soon able to provide hot water for the welcome cup of coffee.

Following short opening remarks from Roy Starkey and Mike Rothwell including a special welcome to the 9 members attending for the first time and good news of Trevor Bridges' goldfish the proceedings got under way. Before the first talk Roy announced that following the tragic death of Norman King earlier this year his widow Shirley donated his micro collection to the Society and Hampshire Micro, courtesy of Michael Edwards, has purchased the very fine wooden cabinets that house the collection for the Society.

The first talk was by Nigel Hoppe who spoke on Cornish Secondary Copper Minerals. We were shown some excellent slides of very colourful minerals, sites, and some remarkable underground shots, one at least depicting a scene of an athletic ascent of a single rope. At the conclusion of his talk Nigel handed out a list of copper containing minerals found in the west country. The writer now appreciates what an unrepresentative collection he possesses. Has anyone got any spare vandenbrandeite?

Nigel was followed by David Ifold who described recent successful visits to High Down quarry at Filleigh in Devon where lovely pale green variscite crystals can be found as an alteration product of wavellite. David also mentioned other sites in the south west where it is still possible to find pyromorphite, anatase, connellite and ceruleite. The highlight of David's address was however his description of the beryl and topaz to be found in old granite quarries on Lundy Island, the Lundy Ferry may well have a few more passengers next year.

The final session on Saturday morning was taken by John Hall who demonstrated how with a little thought and improvisation we can add the professional touch to our macro and micro photography. John's simple tips on lighting and pictorial composition will be invaluable to those of us interested in this part of our hobby.

Following lunch we were treated to a stunning slide show of minerals of the Caldbeck Fells taken by Mick Cooper. As well as photographing his own best pieces Mick has travelled the country taking pictures of the best specimens from this area in both public and private collections. A selection of these slides will be used to illustrate a forthcoming article by Mick and Chris Stanley, of the BMNH, on the mines and minerals of the area to be published in the Mineralogical Record.

The workshop session on Saturday afternoon included the opportunity to learn how to do simple analytical tests for minerals demonstrated by Collin Horstman, to view the Society's reference collection brought by the curator Max Wirth and to ask Michael Edwards and his wife Maureen all the questions about microscopes. We were pleased to see them both at the symposium. They are very busy at present and it was most kind of them to give so generously of their time.

The annual photographic competition attracted rather fewer entries this year, 21 in all. Both 1st and 2nd prizes were won by Mick Cooper with superb slides of tetrahedrite from Herodsfoot and mimetite from Dry Gill. 3rd prize was taken by Elsie Hansford with a picture of goethite on quartz from Wheal Cock. As usual the competition was excellently organised by Doug Morgan.

This year for the first time use was made of the University Catering Service for a buffet meal and bar in the nearby Charles Wilson building. The buffet was followed by the Mineral Specimen Auction whereby the generosity of all the people who brought specimens for sale and those who bid for them led to the Society's funds benefiting to the tune of over £140,00. Grateful thanks to John and Pam Pearce, Daphne Hall, Neil Hubbard and the Auctioneer Roy Starkey.

Sunday morning started at 9.45 am with the Society's AGM. Clearly everyone had woken up for the lively debate on a wide range of issues led to the remaining formal programme running late. We just had time before a late lunch for David Middleton to let everyone know what was on show and to implore us not to miss Elsie Hansford's three dimensional photography and for Frank Ince to explain the reasons for colour in minerals. Frank described the two different groups of processes by which light interacts with minerals to produce colour, the physical processes and the chemical processes. He concentrated on the second of these and described elegantly how colour can be explained using Crystal Field theory, Molecular Orbital theory, and Band theory.

In the final formal session on Sunday afternoon Roy Starkey described some of his recent collecting experiences in Cornwall illustrated to his usual high standards with slides of such minerals as phosgenite and cumengeite. Roy certainly convinced us that the sun has by no means set on collecting in Cornwall.

What little time remained was then spent on more exchanging, conversation, arranging of joint field trips etc. and promises to meet again in Leicester in 1987.

The symposium organiser would like to thank everyone who contributed to making the weekend a success. In addition to those mentioned above he would also like to thank Peter Braithwaite for the picture which adorned the cover of the proceedings booklet, Mary Starkey who kept us all supplied with coffee, tea and biscuits, John Faithfull who looked after us and kept the floods at bay and Elsie Hansford for all the hard work she put into typing all the literature and distributing it.

#### BMS SYMPOSIUM 1987

The 6th annual symposium will be held at Leicester University on the <sup>3rd</sup> 4th and <sup>4th</sup> 5th of October 1987. See you there!

For those with a knowledge of French (just remember to pronounce the ending of mineral names "eet" instead of "ite" and you can't go far wrong...) the Association Francaise de Micromineralogie is holding its symposium in Macon, Soane et Loire, on 29-30th November 1986.

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#### BRITISH MUSEUM (NATURAL HISTORY) - DEPARTMENT OF MINERALOGY Roy Starkey OPEN DAY - 18 OCTOBER 1986

In March 1985 I was talking to John Fuller about the possibility of holding an Open Day at the Department of Mineralogy - specifically aimed at the enthusiastic amateur mineralogist. In November 1985, after much further work, John confirmed that his planned event would in fact take place. Most recently, I visited John in London on 25th September and final preparations were underway for the Open Day. He spoke enthusiastically of the importance of the event in forging stronger links with the amateur and said how much he was looking forward to it with something like 350 visitors expected.

Two weeks later, on Saturday 11 October John died of a sudden heart attack. His death deprives the mineralogy community of one of its great characters - the 'front man' for the B. M. Nat. Hist. Mineralogy Department. John was a familiar and popular figure at the British Mineral and Gem show each year and took a keen interest in amateur collectors and 'specimen mineralogy'. I have lost a good friend and we have all lost a helpful knowledgeable contact at the B.M. (N.H.) - he will be difficult to replace, and sadly missed by all who knew him.

In spite of this sad loss John's colleagues at the B.M. decided that 'the show must go on' and we were treated to a most interesting and enjoyable day. To many of those present it was a

first opportunity to look 'behind the scenes' at research facilities such as X-ray diffraction equipment, scanning electron microscopes and the electron microprobe, as well as the chance to meet the faces behind some of the names of the mineral world.

We continued our tour with a look in some of the 4000 drawers in the cabinets below the display cases in the mineral gallery, and were privileged to be shown a specially assembled collection of light-sensitive specimens including what is probably the world's best proustite crystal specimen, and a quite stunning amber-coloured topaz.

Upstairs Andrew Clark delighted in opening drawers in the 'Russell Room' where we drooled over the superlative specimens amassed by Sir Arthur - the copper arsenate drawers were probably the most frequently requested, but with 14,000 specimens to choose from who can say?

An interesting photographic display of new British minerals included shots of Pam Pearce's elyite and Steve Rust's sweetitie and ashoverite, real evidence of the value of the amateur mineralogist.

Peter Tandy, Registrar, gave a short introductory chat on the Museums' acquisition and cataloguing system and explained the daunting task of integrating the Geological Museum collections with those of the B.M. (N.H.), and hence why the possibility of computerisation is being investigated.

During the course of the day Bob Symes gave two popular lectures - Minerals of the Mendips and Aspects of Mineralisation in Wales.

As well as the more technical aspects of the day we enjoyed the hospitality of light refreshments prepared by Ruth Bradford-Harris and her helpers, including at times some very distinguished mineralogists indeed!

When the day came to a close it was clear that everyone had enjoyed themselves, a lot of new friends had been made and many old acquaintances renewed. The only question is 'when's the next one?'.

Remember - if you enjoyed the day, please write to Dr A C Bishop, Head of Department of Mineralogy, British Museum (Natural History), Cromwell Road, London SW7 5BD, and tell him. You would like to go again wouldn't you?

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BRITISH GEOLOGICAL SURVEY - KEYWORTH OPEN DAY  
19 OCTOBER 1986

Roy Starkey

The new BGS headquarters at Keyworth near Nottingham opened its doors to the public, quite literally, and we wandered almost at will around the extensive 27 acre site.

Many special displays had been prepared and suitable signposting erected to guide the visitor around.

Advanced electronic equipment is much in evidence in the various labs at Keyworth, and the geologist is clearly forsaking his simple hammer for much more sophisticated tools of the trade.

'State of the art' computer-aided cartographic techniques were particularly impressive and visitors were treated to a half-hour run through the systems capabilities. Ultimately it is hoped to digitise all survey information so that manipulation and data handling can be streamlined.

The BGS core-store houses drill cores from some 4500 boreholes in an automated narrow-aisle high stack warehouse system. In addition to cores, the store contains 56,000 specimen boxes about 18" by 12", and has room for a further 24,000. (I wish my garage had the same scope for expansion.)

Research staff at Keyworth are heavily involved in studying fluid processes in relation to reservoir rocks for the oil industry, mineralisation, and the potential for waste disposal underground.

Practical exhibits included rock preparation laboratories, engineering geology test rigs and a drilling rig sinking a borehole in the main yard!

A programme of BGS films ran throughout the day, and a wide range of maps and other publications was available for consultation and purchase.

Perhaps the highlight of the visit for me was a trip around the library, which must rate as one of the best places in the UK to go and study geological journals and maps - [It is! Apart from all BGS publications the library has copies of thousands of books, journals and reprints on geology, mineralogy, mining history etc. etc. covering world-wide localities, all comprehensively indexed and cross-referenced. Ed.] It is open to the public on weekdays only (by appointment) what a shame we can't get there on Saturdays!

All in all it was a most interesting day, and if you didn't make it this time watch out for the next one!

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## BRANCH MEETINGS

### SOUTH EAST BRANCH

Elsie Hansford

The 12th quarterly meeting was held on Sunday June 1st 1986. This, the first Sunday meeting, pursued a Cornish theme and was attended by 26 members. Displays included posters from the Camborne School of Mines, a large reproduction map of Cornwall in 1865 on which Steve Dyson and Debra Wain had indicated all the active mines. Hand specimens on display included pink quartz from Rostowrack (Peter Wallace), apatite and fluorite from Gunheath Pit and malachite from Greystones Quarry (Martin Pruden), olivenite from Wheal Phoenix, chalcocite from Geevor, francolite and apatite from Holmbush and rashleightite from Gunheath (Steve Dyson), tourmaline and blue apatite from Megilligar Rocks (Bob Snowball). Roy Thomas brought two old-time specimens of chalcotrichite and liroconite from Wheal Gorland and refused all offers to reduce them to micros!

Michael Jackson showed several attractive quartz clusters collected on a BMS meet at Manod Quarry (Wales). These were very dirty when found but had cleaned up beautifully in Richard Belson's ultra-sonic cleaner.

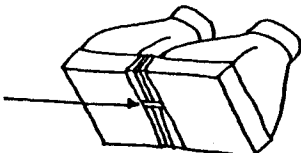
Steve and Debra also demonstrated some purpose-made 2-drawer filing cabinets for micros. The units are stackable and each will hold 96 1" x 1" micro boxes (not the hinged kind). They cost just over £6 and were obtained in Holland. It might be viable to import them if there was sufficient demand. Another useful device, a rock-splitter, was shown by Ken Luff. This was made by his son. Contact Ken if you are interested in one of these.

Our slide show this time was provided by Steve Dyson's shots of Cornish minerals and Peter Wallace's Cornish sites, including a dramatic sequence of sunset over St Agnes engine house.

The August 17th meeting was attended by 23 members and 3 guests. On this occasion Elsie Hansford's stereo slides were shown with the expert help of Les Wibraham and his stereo projector. Seeing photographs in this way is not only exciting in itself but can show aspects of a specimen that may be missed when examining it through the microscope. As with 2D slides the projector shows up all the defects of the image and a great deal of care is required to produce 3D images suitable for projection. A stereo hand-viewer is a less

exact way of viewing such slides and can easily be made by butting together two 'daylight' slide viewers as shown below.

1/4" thickness of  
double-sided stick pads



Using double-sided stick tabs in this way allows some movement to accommodate different eye spacings.

The next meeting is on Sunday, 23 November at 3 p.m. Provisional dates for 1987 meets are: February 15th - May 10th - August 16th - November 22nd.

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#### WARRINGTON BRANCH

Isabel Geldart

Meetings continue to be held on the first Tuesday of each month. We have nine regular attenders. All are extremely enthusiastic and never seem to want to go home even although up to 40 miles distance has to be travelled afterwards.

We have no set programme but all bring microscopes and specimens for viewing, discussions and swapping. We are fortunate in that there is a rock trimmer and saw in the room. We take turns to provide tea, coffee and biscuits.

We have had two outings to Thurston Beach and Fallgate Quarry. We also had a weekend trip with the Warrington Society to Taffs Well and Wyndham Mine in South Wales at the end of May. At the latter site some beautiful millerite was found, both golden and bright green. (See separate article.)

John Houghton has now joined the B.M.S. and is a very enthusiastic member. Eight of our group went on the South Scotland field trip and John went to Wales. We all enjoyed ourselves despite the weather and found some nice micro specimens.

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#### NORTHERN BRANCH

Jean Spence

Although our meetings are only attended by a faithful few, the group has enthusiasm, expertise and there is an opportunity to discuss and explore one subject at a time. At the July meeting much of the afternoon was taken up admiring and discussing another superb show of slides by Mick Cooper. There was tetrahedrite from Herodsfoot, stolzite from Brandy Gill, lavendulan from Dalbeattie, and plumbogummite/mimetite from Caldbeck Fells. Then there was a crop of some of the world's best examples from overseas. It was almost like turning the pages of "Mineralogical Record" only better because they were projected on the big screen. The varieties of wulfenite seemed endless and there is no wonder that it is a favourite mineral among many collectors.

At the September meeting I reported on my recent trip to the USA and showed some of the slides I had taken of British sites recently visited. These had been of much interest as American collectors do not have similar opportunities to collect underground or even examine minerals in situ. David Green brought along his collection of Wanlockhead slag minerals which had been analysed by XRD and members enjoyed examining these correctly labelled specimens; and no doubt went off to put new labels on their own!

The 1 November meeting attracted a record attendance of 15 members and friends, and turned out to be most enjoyable and instructive. A large amount of material was freely made available which will provide considerable microscope activity during the winter months. David Green showed more of his superb slides of Wanlockhead slag minerals and patiently helped with his expertise on this group. As a result many members are now much more confident about identifying specimens. An interesting home-made unit for illuminating specimens for photography was demonstrated by Max Freier of the Doncaster Mines Research Group. It comprised a lighting arrangement using quartz-halogen lamp and condenser through twin fibre optics directed onto the stage with the specimen. This was used as a modelling light and when the best position was obtained, the lamp was swivelled out of line to make way for an electronic flash unit used to take the photograph. Initial results were very good but it was thought that improvements could be made with experience. Thanks were expressed to Jean Spence and Muriel Tissington for arranging use of the library and providing refreshments. Meetings in 1987 will be held on 11 April, 4 July, 12 September and 31 October at Bircotes library commencing 2 p.m. There is accommodation for more members who will be welcomed. Anyone wanting directions please contact Jean Spence.

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#### WEST MIDLANDS BRANCH

Roy Starkey

Another successful meeting of this small select band took place on Sunday 14 September at 2 Speedwell Road, Birmingham - courtesy of Mike Bayley. Topics of discussion included the recent finds of vanadium minerals at Juckins Quarry Nuneaton - specimens of which were displayed at the symposium, and zeolite minerals from the Isle of Skye.

The next meeting is scheduled for Sunday 30 November at 2.15 for 2.30 p.m. at 3 Mitchell Road, High Acres, Kingswinford, West Midlands. Please telephone Ron Weaver in advance if you intend to come - 0384-79105. We would be pleased to see some new faces at the meetings so if you live within travelling distance of Birmingham please get in touch. The theme for the November meeting will be Minerals of Cwmystwyth and Eaglebrook Mines so there should be lots of interesting material on show.

#### Congratulations

We offer our sincere congratulations and very best wishes to John and Cath Faithful on the occasion of their wedding which was held in Clevedon on the 25th October. Keep him hard at the minerals Cath!

#### Over the Sea to Skye...

Donald Barratt writes to invite members to join him on a cruise around the coast of the Isle of Skye with the express purpose of going ashore at inaccessible points to collect zeolites and other minerals. The suggestion is to charter an 80 foot yacht which sleeps 12, for a fortnight, including all food and the services of captain and crew. Ballpark cost is in the region of £400, and the preferred time is the last 2 weeks of May 1987. Anyone interested is asked to contact Donald directly -68 Janes Lane, Burgess Hill, W. Sussex, RH15 0GR.

## OVERSEAS NEWS

Hugh Heron of the South African Micromount Society has written to ask for details of British slag minerals and localities. Hugh is a regular contributor to the SAMS newsletter and would be pleased to hear from any of you budding slag addicts. Write to: P.O. Box 39042, Queensburgh, 4070, South Africa.

The latest issues of Micro News and Views from the SAMS contain interesting articles on Cornetite from the African copper belt.

Simkev Minerals (942 Chevrolet St, Oshawa, Ontario, Canada, L1G 4H8) recently issued a special list detailing a wide variety of German minerals. This included a locality map and an extensive set of different mineral suites from selected localities. Part two of this listing will be available later in the autumn. Simkev's November list is a special discount offering, including many very rare species at cost price or less. If you would like copies please contact Rod Lee at the above address.

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## PROSPECTING: HIGH AND LOW TECHNOLOGY

Mick Cooper

The latest advances in radar and laser ranging allow satellites to measure heights on the earth's surface to an accuracy of a few centimeters. According to a report in the Sunday Times (28 September 1986) such measurements can be used to detect salt pans by showing up the settling of the pans as they dry out. The valuable salts in the pans, particularly those in the Chilean Andes, can then be mined. Compare this product of a remarkably sophisticated science with the latest claims by well-known spoon bender Yuri Geller, who, in an interview on 'P.M.' on Radio 4 (30 September 1986), revealed that he can detect mineral deposits using his psychic powers. First he studies a map of the region and then flies over it (presumably in an aeroplane...) to refine his first feelings. "Most of the time I get it wrong" he says "but when I get it right it's big!". Just how big he didn't say, nor did he divulge any details of particular strikes. But before you ask him to point out just where lindgrenite can be found in Brandy Gill check your bank balance: Mr Geller charges £1 million prospecting fee plus a percentage of the profits.

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## BRITISH MICRO LOCALITIES

No. 14

Isabel Geldart

Wyndham Mine (SS 940 925)  
Nanty Moel  
Mid Glamorgan

This mine is situated about 10 miles north of Bridgend, on the A4061 which, continuing northward, joins the A465 6 miles west of Merthyr Tydfil. Dumps extend on both sides of the road and there is ample car parking space. The following minerals were found in ironstone nodules:-

- |            |   |
|------------|---|
| Millerite  | - both golden and coated green, on west side of road opposite cottages. |
| Quartz     | - crystals  |
| Siderite   | - sharp terminations  |
| Pyrite     | - tiny crystals embedded in calcite                                     |
| Sphalerite | - tiny clear orange crystals  |
| unknown    | - tiny orange globules  |



Bwlchreinaid Mine or Level Newydd (SN 706 823)

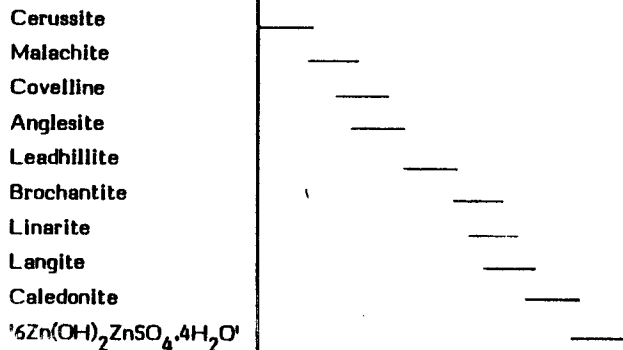
Goginan  
Tjrymynach  
Wales

The following minerals have been found on the dump. Most of the basic sulphate minerals are rare to extremely rare here. Visual identification only.

- Anglesite - colourless to white intergrown blades.
- Cerussite - very common, in various habits to 5 mm.
- Brochantite - rare, minutely drusy mats with linarite and malachite.
- Caledonite - on one specimen in small vughs as light-blue acicular-prismatic divergent crystal masses, with cerussite, malachite, brochantite, linarite, leadhillite and ' $6Zn(OH)_2ZnSO_4 \cdot 4H_2O$ '.
- Hemimorphite - an easily overlooked whitish crystalline crust on cellular veinstone.
- Langite - very rare minute crystals with brochantite.
- Leadhillite - pseudo-hexagonal intergrown colourless crystals with caledonite.
- Linarite - rare euhedral crystals on malachite; more common as a crystalline crust.
- Malachite - not uncommon as an encrustation on veinstone, and as botryoidal-crystalline lining small vughs with cerussite. Sometimes as acicular crystals covering cerussite.
- ' $6Zn(OH)_2ZnSO_4 \cdot 4H_2O$ ' - extremely rare pale blue triangular cone-like crystals as encrustations and as scattered single crystals. With caledonite, linarite, malachite and leadhillite. Visually identical to analysed material from the Dyfnogwm Mine.

Primary mineralisation consists of galena, chalcopyrite, sphalerite and quartz.

Paragenesis of Secondary Minerals from the Bwlchreinaid Mine



A mineral similar in appearance to the basic zinc sulphate noted above also occurs at Esgair Hir, where it forms elongated triangular cone-like crystals, colourless to transparent pale greenish-blue. It occurs on a quartz-marcasite veinstone which also contains linarite and leadhillite.

For details of the mine see:-

Foster-Smith, J. R., The Mines of Cardiganshire. British Mining No. 12

Bick, David E., The Old Metal Mines of Mid-Wales. Part 2

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### WULFENITE

Steve Rust reports yellow to caramel-coloured acute dipyrmidal crystals of wulfenite from the Aberdaunant Mine (SN 908 866).

For those with a taste for the exotic Dave Shannon (1727 W. Drake Circle, Mesa, Arizona 85202) is still selling wonderful quartz and vanadinite pseudomorphs after wulfenite from various Arizona localities. Your editor (a confirmed wulfenitophile) has recently received a further lot of these and they are truly remarkable specimens: hollow transparent micro drusy quartz epimorphs of tabular wulfenite scattered with micro vanadinite showing 1st, 2nd and 3rd order dipyramids from the D H Claim, as David says: neat!

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### DURANGITE

Mick Cooper

An isolated locality in the Thomas Mountains, Utah has recently yielded fine specimens of the rare arsenate durangite  $\text{NaAlF(AsO}_4\text{)}$ . The mineral is known from only a few localities and the Thomas Mts. material is the best yet found. Two specimens from this find are illustrated in colour in the latest Mineralogical Record to reach me (Vol. 17, p. 342). Pearl Freeman was recently visited in London by the co-discoverer of this site, David Richerson, who obtained her address from the International Directory of Micromounters (so it does pay to advertise!). He is selling micros of this species, plus others, from what appears to be a unique occurrence. Other minerals include cassiterite, hematite, topaz and tridymite, in a bewildering range of habits: for instance cassiterite occurs as 'wood tin', as pseudos after hematite, and as transparent red acicular crystals! If interested contact David W. Richerson at 2093 E. Delmont Drive, Salt Lake City, Utah 84117.

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### CHEMICAL HINTS

Max Wirth

Distinguishing between certain micro-minerals visually can be quite difficult. Furthermore the amount available for tests may be very small, e.g. in the case of slag minerals.

There is a very easy and sensitive test for sulphate, which is useful for the following pairs:-

caledonite from hemimorphite (which can be blue!)  
brochantite from malachite  
serpierite from aurichalcite

Whilst carbonates will effervesce with acids, this is not always evident on very small samples, in addition to which slight contamination by calcite will produce an ambiguous result.

The quantity required for a sulphate test is minute, e.g. a single blade of serpierite 0.2 mm long. The test is best carried out on a microscope slide and viewed through a stereo-microscope.

The small fragment, which can be extracted from the specimen with a needle point, is placed on the slide. The smallest possible drop of hydrochloric acid (concentrated acid diluted with an equal part of distilled water) is added to dissolve the fragment. Then a similar drop of barium chloride solution is added from the side, to merge with the first drop. If sulphate is present, there will be an immediate precipitate of very fine barium sulphate (looking like table salt at X40). After a while, due to evaporation, excess barium chloride will crystallise as large platy crystals, however the original sulphate precipitate is unmistakable.

It may be difficult to obtain barium chloride since it is classed as a poison. It is a simple matter to prepare a little solution by dissolving witherite in hydrochloric acid.

Using this test, it has been established that the aurichalcite reported in Wanlockhead slags is probably serpierite. The same is true of some suggested aurichalcite from Penberthy Crofts, which also gives a positive test for sulphate by this method.

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#### MINERAL ROBBERY

Eric Otty

The following letter by Dr R J King, Department of Geology, National Museum of Wales, appeared in the June 1986 issue of "Museums Bulletin":-

"It has been brought to my attention that a refined form of robbery is being perpetrated on museum-based mineral collections. The robber is an amateur collector possessing a high level of mineralogical expertise and a plausible manner. His targets are those mineral collections which have been "lost" to the mineral world and in the care of curators with little knowledge of mineralogy or even geology. His technique is to offer aesthetically pleasing but common material suitable for display in exchange for dull-looking but rare material which "may have an interest when closely examined". In this way the real value of the collection has been lost.

May I impress on any curator who is so approached that he or she contact a professional mineralogical curator in order that the value of any contract made may be established in the museums favour?"

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#### NATIONAL REFERENCE COLLECTION

Max Wirth

Our collection has been augmented by a further 120 specimens given at the recent Leicester meeting. Most of these have now been mounted and catalogued. List Nos. 10, 11 and 12 updated to No. 500 are enclosed with this issue of the Newsletter.

With 540 specimens in the collection, it will now be possible to request 10, 20 or 30 at one time. This will make little difference to the cost of postage and should encourage the use of

the collection. Listings, 50 per page in the standard format or 40 per page with the curator's comments, are available on request at a provisional price of 15p per page.

Specimens from the fine Norman King collection will not be available for the time being. This collection of about 1000 specimens of which half are foreign is currently being listed as a separate entity.

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### CORNISH TIN

In August this year the Government announced a £25 million package of loans and guarantees to the giant multi-national Rio Tinto Zinc in a bid to keep open Wheal Jane and South Crofty. The mines were just ten days from closure when the rescue was granted. The Government had already turned down a request for similar aid from Geevor mine and shortly before the Jane-Crofty package was announced a further request for £150,000 towards care and maintenance in Geevor was also refused. Conducted tours of the mine workings (£10 for a 2 hour trip) have been contributing to the £3,000 per week pumping costs, however latest news to reach me suggests these efforts have all been in vain and the mine is now closed.

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### CUMBRIAN IRON

The old and unique Florence mine at Egremont is to be turned into a tourist attraction. Materials and expertise from British Coal and the Chatterley Whitfield Mining Museum at Stoke-on-Trent will be used to drive a new drift which will allow tourists to walk into the mine. After a tour of the workings visitors will be wound out using the existing shaft.

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### MINERALS WANTED

Ed Rowan (31 Cloverhill Avenue, Lisburn, Co. Antrim, N. Ireland) is anxious to obtain specimens of plumbogummite from Cumbria and phosgenite from Cornwall (who isn't?). He is willing to exchange, on a 3:1 basis, minerals from Ireland, even the rarest ones. He has lists available.

Harry Foy (THE N. Ireland member of the BMS), who forwarded Ed's request, is also looking for exchanges with collectors this side of the Irish Sea. His exchange list carries an impressive number of exotic zeolites including the vanishingly rare new mineral gobbinsite; unusual habits of gmelinite; type locality garronite; paranatrolite; and stellerite as well as more common species. Apologies to Harry for moving him to the Isle of Man on the geographical breakdown of BMS members on the back page of the last newsletter...

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### FORTHCOMING EVENTS

6 December 1986. Amateur Geological Society Annual Bazaar. St Alban's Church Hall, West Heath Drive, Golders Green, London. From 11.15 to 3.30 p.m.

Essex Rock and Mineral Society - Annual Bazaar will be held on Saturday 21st February 1987 10.00 a.m. to 4 p.m. at the North Romford Community Centre, Clockhouse Lane, Collier Row, Romford, Essex. Admission 20p

7th British Mineral and Gem Show - April 11th and 12th Holiday Inn Hotel, Swiss Cottage, London, NW3.

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### FIELD MEETINGS 1987

We would still be pleased to hear from members willing to organise and lead field meetings for the May Day weekend next year. You don't have to be an expert - just interested, and with some ideas on where we should go. The prime requirement is that access permission is formally obtained in advance for the party - finding mineral specimens is the individual's pigeon! If you have any views or ideas please contact Roy Starkey without delay. No leaders = no field meeting!

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### Changes of Address

Stephen and Debra Dyson  
52 Chapel Wood  
New Ash Green  
Kent DA3 8RB

Tel: 0474-874885

Trevor Wolloxall  
25 Condor Grove  
Falcon Heights  
Heath Hayes  
Cannock  
Staffs WS12 5YB

James Wooldridge  
20 Firtree Road  
Fernhill Heath  
Worcester WR3 8RE

Tel: 0905-52544

### New Members

Simon Dominy  
2 Cranleigh Road  
Merton Park  
London SW19 3LU  
Tel: 01-540-5400

Alan Dyer  
4 Park Road  
Manchester M8 6HU

Tel: 061-7958-728

John Harris  
17 Laurel Drive  
Thornton  
Blackpool  
Lancashire FY5 5EX

Roger Powell  
"Coolgardie"  
Mylords Road  
Fraddon  
Cornwall TR9 6LX

Tel: 0726-860642

Tim Riley  
Principal Keeper  
(Natural Sciences)  
Sheffield City Museum  
Weston Park  
Sheffield S10 2TP  
Tel: 0742-27226

Nick Zachariades  
34 Fairlie Park  
Ringwood  
Hampshire BH24 1TU

Tel: 0425-479795

### BRITISH MICROMOUNT SOCIETY NEWSLETTER EDITOR

Michael P Cooper  
41 Albany Road  
Sherwood Rise  
Nottingham  
NG7 7LX

Minutes of the 3rd Annual General Meeting held at Leicester University on Sunday 28th September 1986 at 9.45 am attended by 80 members.

1. MINUTES:

The minutes which were previously circulated were taken as read. Beverley Yates pointed out that the 2 visitors from Holland had not attended as stated. This was noted and the minutes were then signed as a true record.

2. MATTERS ARISING:

2.1 Membership Fees: The Chairman proposed no increase in the membership fees and this was agreed unanimously.

2.2 National Micromount Reference Collection: It seemed members were happy with the organisation of the collection but the Hon. Curator said that only 10 enquiries had been received in the last year. Many more members indicated they would be using the facility. It was voiced that the borrowing period of 4 weeks was too short but it was agreed that extension of the borrowing period should be left to the discretion of the Hon. Curator providing he was informed by phone or letter that an extension was required.

It was announced that Mrs Shirley King had kindly donated Norman's collection of micromounts to the BMS Reference Collection. This was housed in two splendid wooden cabinets which had been bought from Mrs King by Michael Edwards and donated to the BMS Reference Collection by Michael. A vote of thanks was given to Mrs King and Michael for their generous gesture.

It was decided that it would be left to the Hon. Curator whether foreign minerals would be collated into the Collection.

Means of mounting the specimens were discussed. It was agreed that permanent mounting was desirable but no agreement was reached regarding the best method. Peter Braithwaite volunteered to mount 100 of the Reference Collection Specimens.

2.3 Field Meeting: Members were asked to suggest venues for 1987. Mid-Wales was suggested, discussed and abandoned. West Cornwall was preferred but no volunteer(s) could be found to organise the 1987 field trip(s).

2.4 Directory of Micromounters: The Chairman reminded members that some had not returned their information forms and to do so immediately or be left out of the Directory which was nearing completion.

3. OFFICERS REPORTS:

3.1 Membership Secretary/Treasurer: Neil Hubbard reported that membership now stood at 136. 14 new applicants had been taken into membership and 10 memberships had lapsed since last reporting the situation.

He then reported that there was £1023.22 in the bank as at December 31st 1985. 1986 finances would be concluded on December 31st 1986 and reported to the A.G.M. in 1987.

Roy Starkey then suggested that some of the Society's funds should be used to purchase Goldschmidt's "Atlas der Krystallformen" which is to be re-published in 9 vols. at a cost of \$300/£200. After discussion Sidney Freeman proposed the purchase of Goldschmidt for the BMS. Max Wirth seconded the proposal. A vote was taken - 49 for, 3 against and 6 abstentions.

Jean Spence proposed that some of the Society's money should be used to finance the purchase of micromount boxes which Richard Belson kindly supplied for benefit of members and a sum of £500 was suggested. After discussion it was thought this was too much of the Society's funds to be tied up in this way and a sum of £200 was suggested. It was agreed that a sum of £200 would be placed at Richard Belson's disposal if requested.

- 3.2 **Chairman's Report:** Roy Starkey reported that it had been a good year for the Society with very successful field meetings to Scotland and North Wales in May. The Society had also won for the 2nd year running the Roger S Haiker Shield for the best Club/Society stand at the London Show. However, due to lack of space at the 1987 show we may not be offered the facility to have a stand (we have yet to hear) and therefore the focal point for members visiting the show would be lost.

Roy also reported that the British Museum were in financial difficulties. He urged members to read the Museum's publication 'Corporate Plan' and asked that members should write personally to the Museum's Open Day organisers afterwards in appreciation.

#### 4. ELECTION OF OFFICERS:

There were 35 nominations for the existing Committee and none for any other. Therefore the Committee were re-elected unopposed.

It was proposed that a new Independent post of Treasurer be formed. Sidney Freeman volunteered and was elected unopposed to the position.

The Committee therefore is now as follows:-

Chairman	: Roy Starkey
Secretary	: Elsie Hansford
Treasurer	: Sidney Freeman
Membership Secretary	: Neil Hubbard

Due to the retirement of Eric Otty as Newsletter Editor it was proposed by Neil Hubbard that Michael Cooper be the new Newsletter Editor. Peter Reynolds seconded the proposal and Michael Cooper was appointed unanimously. A vote of thanks was given to Eric for the excellent way he had performed his task.

Michael Rothwell stated he was willing to continue as Symposium Organiser for 1987.

Max Wirth as Hon. Curator was willing to retain his post.

It was seen that there is now a need for an Archivist to the Society. Muriel Tissington was happy to become the Society's Archivist and was appointed to the position. The Archives will contain past correspondence to, and publications of the Society - together with books belonging to the Society and available on postal loan together with a copy of all future papers of the Society.

#### 5. ANY OTHER BUSINESS:

- 5.1 Roy had received a letter from Don Burtonshaw of the North West Lapidary Society who was carrying out a survey of Clubs in the U.K. together with a Questionnaire. As this clashed with the survey that the Federation of Lapidary

and Geological Societies was currently carrying out it was felt that we should fill in and return their questionnaire but that we should not get involved.

5.2 Roy announced that we had affiliated to the Federation of Lapidary and Geological Societies and asked Sidney Freeman, F.L.A.G.S. Secretary to outline the aims of the federation, for members benefit.

5.3 Constitutional Amendments: It was proposed by the Chairman that the posts of Officers of the Society (Chairman, Secretary and Membership Secretary) should be held for a fixed term of 3 years. Sidney Freeman stated that he saw no advantage to forcing people out of office. If officers wanted to retire then other nominees would have to be sought. There was general agreement on this point. Oneta Wilson thought that the organisation of the Society prevented ordinary members gaining experience of these posts before volunteering themselves. After considerable debate the amendment was rejected.

5.4 Comments on the Symposium:

Photographic Competition: There was a proposal by Richard Belson that the photographic competition entries should be of self-collected British minerals. It was seconded by Kemp Meikle. Vote - 49 for, 9 against and 10 abstentions.

Elsie Hansford then proposed that the competition be divided into 2 categories. Category 1 for photos taken through the microscope. Category 2 for photos by any other means. A problem was recognised in that the number of entries had fallen and it had become a competition between experts in which other members found it hard to compete. It had therefore moved away from its original objective to encourage an interest in photography of minerals amongst members. Mary Starkey then suggested that it should become an exhibition of photography and not a competition. This was generally agreed and the form of the exhibition for 1987 will be decided upon by the organisers.

Auction: Michael Rothwell suggested the Auction of minerals should be dropped from the Symposium. There was a general protest and it was agreed to hold the Auction again next year.

Peter Reynolds requested a micromount competition and whilst seen as desirable - the Symposium Organiser could not see a practical way of running it.

Peter Braithwaite proposed a vote of thanks to all Officers and co-opted Officers for their work for the Society.

There being no other business the meeting closed at 11.45 am.

The next Annual General Meeting will take place at the 1987 Symposium.