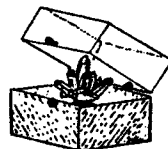


# BRITISH MICROMOUNT SOCIETY



NEWSLETTER NO. 19

MARCH 1987

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## EDITORIAL

Due to the extreme pressure of other projects your editor has not had much time to think of much to put up front of this newsletter (who cheered?). Instead I have borrowed a quote from an old American magazine, reproduced below as 'Thought for the day'. If any members ever find intriguing quotes in the literature - from the absurd to the serious - I'd be delighted to receive a copy; I collect them and good ones will be printed in the newsletter.

Thanks to everybody who made a written contribution to this newsletter and to Mick Wolfe and Roy Starkey who sent cuttings I have abstracted here and there.

## THOUGHT FOR THE DAY

The following is taken from an article on "Some mineral dealers" by Charles H Pennypacker and published in the, now classic, American journal "The Mineral Collector" in 1901:

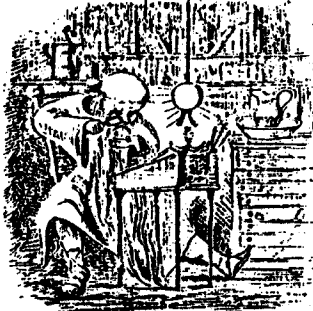
"Live a clean wholesome life in imitation of the divine master and exemplify the glory of God by the divinity of man. Fill you lungs with fresh air and your haversack with good minerals. If somebody asks you "What are you going to do with these things after you are dead" reply "God moves in a mysterious way his wonders to perform!" This answer will give such a questioner the sick headache.

If you are reflective and philosophical, consider the disappearance of minerals. Where do they go? What becomes of them?"

Makes you think dunnit?

## AN EARLY MICROMOUNTER

The illustration below comes from the preface to H W Bristow's "A Glossary of Mineralogy" published in 1861 and purports to show Theophrastus, well-known Greek mineralogist and author of "Peri lithon" ("about stones") written about 315 BC.



THEOPHRASTUS PERI LITHON

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### BMS NEWSLETTER - BACK COPIES

Several people have asked about obtaining back copies of the newsletter (including your editor). Even the Society archive does not contain a full set! In order to explore more completely the possibility of a reprint of certain copies will all interested parties write to me listing their requirement? We can then find what wants can be met from existing supplies (some issues are available from the archivist Muriel Tisington) and which require a re-run.

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### ANNUAL FIELD MEETING

Roy Starkey

Regrettably, due to the absence of volunteer leaders, there will be no organised Field Meeting over the May Day weekend this year. The Annual Field Meeting has been a popular and well supported event over the past five years, although it is now becoming more difficult to arrange a three-day itinerary for 50-60 people without repetition or access problems.

I would be pleased to hear from potential leaders for the 1988 Field Meeting, and would suggest that we require at least two geographically separated trips, both of which will require two leaders to organise. The essential tasks involved, having decided where to go, are to approach land-owners regarding access, establish car parking arrangements, plan the

daily itinerary, locate and book a pub for the Saturday evening, and draughting of a suitable reading list and hand-out covering the geology/mineralogy for the meeting. It has been the policy over the past few years to base the Field Meeting around a caravan site where vans can be rented for the three-day stay, and with adjacent hotel or B & B accommodation for those who require it.

None of this preparatory work is difficult, and there are many of you capable of doing a good job in organising a Field Meeting. Please give the matter some serious thought so that we be assured of a successful weekend in May 1988.

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### BRITISH MINERAL & GEM SHOW

This ever popular event will again take place at the Holiday Inn, Swiss Cottage, London on 11 and 12 April. Unfortunately due to lack of space it will not be possible for Societies and Clubs to stage displays this year, but it may be possible for us to arrange an informal 'gathering point' in the foyer area. Dave and Ivor are keen to see the clubs in attendance, and plans are in hand to make this possible for 1988. Hope to see you at the Show!

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### SOUTH EASTERN BRANCH

There have been two meetings since the last newsletter was published. On November 23rd, 28 members met together. The format of these meetings are usually informal - members are happy to meet, swap, discuss, view slides and on this occasion enjoy free refreshments in the Xmas spirit, plus the fun of a raffle.

The first meeting of 1987 saw 27 members gathering together, again enjoying the same informal but highly enthusiastic meeting. The South East meeting dates for the rest of the year are:- May 10th, August 16th and November 22nd, starting at 3pm and finishing approximately between 7-8pm. Members are welcome to join us. For details of the Venue etc. contact Elsie Hansford.

### NORTHERN BRANCH

Next meeting 28th March - Contact Jean Spence for information.

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### NEW FINDS

Chalcophyllite  $\text{Cu}_{18}\text{Al}_2(\text{AsO}_4)_3(\text{SO}_4)_3(\text{OH})_{27}\cdot 33\text{H}_2\text{O}$

Steve Rust

Dyfnwgwm mine, Powys, Wales.

As minute green crystals (to 0.2mm) associated with brochantite, linarite and langite.

Hydrocerussite  $\text{Pb}_3(\text{CO}_3)_2(\text{OH})_2$

Dyfnwgwm mine, Powys, Wales.

As prismatic 'triangular' crystals to 0.5mm.

Both species confirmed by the Department of Mineralogy, BM(NH).

Dundasite  $\text{PbAl}_2(\text{CO}_3(\text{OH})_4)\cdot\text{H}_2\text{O}$ .

Paul Wallace

Eaglebrook Mine, Dyfed, Wales.

As balls of radiating acicular crystals to about 0.5mm dia. The balls are very pale blue in the centre to white at the terminations and are associated with anglesite and linerite on a limonitic matrix. Two specimens only were found.

Confirmed by Department of Mineralogy, BM(NH). (Paul reports that this material was taken to the museum on Wednesday 17 October and he was given the result at 11.55 am at the BM(NH) Open Day on Saturday 19 October. Is this a record?)

On the same collecting trip, in addition to the usual Eaglebrook secondary sulphates and carbonates, Paul found the unusual pseudomorph of limonite after cuprite.

Diaboleite  $\text{Pb}_2\text{CuCl}_2(\text{OH})_4$

Roy Starkey

Cumengeite  $\text{Pb}_4\text{Cu}_4\text{Cl}_8(\text{OH})_8\cdot\text{H}_2\text{O}$

Daymer Bay, Polzeath, Cornwall.

The former occurs as blue bladed crystals to 5mm; the latter as excellent transparent blue octahedral crystals to 1mm across. The minerals occur in a vein outcrop in the bay. Confirmed by XRD at the BM(NH).

Xenotime  $\text{YPO}_4$

Hendre Quarry, Glynceirog, Clwyd, Wales.

As sharp tetragonal prisms to 1mm on albite. Confirmed by XRD at the BM(NH).

Johannite  $\text{Cu}(\text{UO}_2)_2(\text{SO}_4)_2(\text{OH})_2\cdot 8\text{H}_2\text{O}$

David P Clough

from the Peeth Lode, Level 17, Geevor Mine, Pendeen, Cornwall.

Occurs as apple-green to emerald-green prismatic and thick tabular crystals, to 3mm in size, commonly in radial or sub-parallel aggregates, on quartz vein material, associated with becquerelite.

Becquerelite  $\text{CaU}_6\text{O}_{19}\cdot 11\text{H}_2\text{O}$

from the Peeth Lode, Level 17, Geevor Mine, Pendeen, Cornwall.

Occurs as bright yellow spheres, to 2mm in diameter, and as drusy crusts, on quartz vein material, associated with johannite.

(Both species confirmed by the Department of Mineralogy, BM(NH).)

Anatase  $\text{TiO}_2$

from Wheal Concord, Skinners Bottom, Blackwater, Cornwall.

Occurs as very sharp, translucent to opaque, metallic, blue, thin to thick tabular crystals, to 1mm in size, on chlorite and quartz in cavities in chalcopyrite/sphalerite rich matrix.

(Visual identification.)

Botallackite  $\text{Cu}_2\text{Cl}(\text{OH})_3$

Michael P Cooper

Halkyn, Clwyd, Wales

As minute turquoise blue crystals and crystalline crusts with cuprite crystals (to 0.1mm) and several other unidentified species as natural weathering products on a vesicular grey slag. This appears to be the first record for botallackite in Wales. Specimens have been donated to the National Museum of Wales, Cardiff. They were collected in about 1965 from a since obliterated site. Thanks to David Green for identification by X-ray and microchemical tests.

Mottramite  $\text{PbCu}(\text{VO}_4)(\text{OH})$

David P Clough

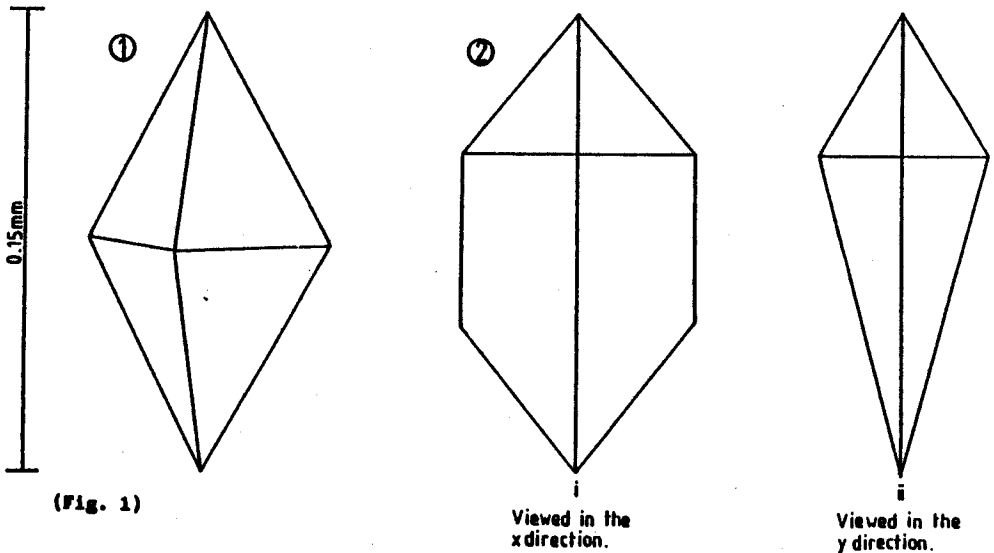
from the Penberthy Croft Mine, St Hilary, Cornwall.

Occurs as minute, transparent, yellowish-brown, bipyramidal crystals, to 0.15mm along the c axis, either singly or in intergrown groups, on a dull grayish-black mammillated background (manganese oxides?), on quartz matrix and associated with mimetite and bayldonite. See fig. 1.

(Confirmed by the Department of Mineralogy, BM(NH).)

## MOTTRAMITE from the Penberthy Croft Mine.

Idealised sketches of two individual crystal specimens.



"The Magic of Minerals" by Olaf Medenbach and Harry Wilk. Published by Springer Verlag, 1986. Hardback 11 x 12", 204 pages. £35.00.

This is an English edition (translated by John Sampson White) of the 1977 German book "Zauberwelt der Mineralien". Despite the substantial amount of text explaining the structure, form, occurrence, and taxonomy of minerals this is essentially a picture book in the coffee-table mould (and size). Olaf Medenbach is a photographic editor of the Mineralogical Record, amongst other things, and is one of the world's foremost mineral photographers. Readers of the Record will be familiar with many of the pictures in this book which has been a rich source of cover photographs for that, and other, journals. The photographs, 110 of them, are nearly all reproduced full-page or larger, alongside an explanatory caption and running text on general mineralogical subjects. This layout, coupled with the way the pictures 'bleed' off the edges of the page, give the book a rather inessy look on occasions. A margin around each shot would help one focus in on the image. And these pictures are worth looking at! Despite the less than world beating quality of some of the specimens (only partly disguised by some rather clever lighting) there are enough memorably beautiful shots here to satisfy anyone. It's a pity about the nice Egremont calcite of plate 55 captioned "Egremont, Cornwall, but the cuprite-mimetite photograph of plate 27 (splashed across the front and back pages of the special *Taunus* issue of 'Lapis') is almost worth the cost of the book by itself.

A pretty and stimulating picture book then, but the ultimate mineralogical coffee-table is yet to be published.

"Larousse des Mineraux" by Henri-Jean Schubnel with Jean-Francois Poullen and Jaques Skrok. Librairie Larousse, 1981. Hardback 8½ x 10½", 364 pages. Cost about 200-250 FF.

I first saw this book on holiday in Paris a few years ago and, with the memory of the incredible mineral specimens I'd seen in Parisian museums still fresh in my mind (many of which are illustrated in this book), I was tempted to buy it. I was persuaded not to by the state of my pocket after a visit to a leading French mineral dealer... Recently, feeling that my memory of those beautiful specimens needed reviving I decided to try ordering this book via inter-library loan from the British Library, on the off-chance they had a copy. They didn't. But, the British Library don't like to see a disappointed reader so they went out and bought a copy. (The BL really is a remarkable establishment, and I owe them a large vote of thanks, and not just for this. Incidentally they also have a copy of the original German edition of the Medenbach book reviewed above for those interested in seeing the pictures but not willing to fork out £35.) However, back to the review: This is the type of book with which many of you will already be familiar. It contains a general introduction to mineralogy, pitched at a level a rung or two above Sinkankas' well known 'Mineralogy for amateurs' (as far as my French will divine these things!), followed by an alphabetically arranged section describing some 2,500 species. Very rare species are given a cursory treatment (formula, crystal system, major locality and a few words of description); those more common, or more well-known as collector species, are given a fuller treatment. What sets this book apart from similar ones available in English is the quality of its production (quite simply it is a very nice BOOK) and the quality of the superbly photographed specimens. No typical collector's pieces these; many are 'best of species' and the remainder are merely superb. Nice also to see so many unusual species illustrated, and mostly in well-formed crystals: caesalite, a 2cm caledonite crystal, davidite, dyscrasite, fluckite etc. etc. Many classic European localities are represented, including British ones. There is the usual problem (see above) with wandering Cumbrian localities: an excellent Roughton Gill plumbogummite captioned "Roughton Hill, Cornwall". Even if you don't read French this book is well worth a look, the caption information can easily be translated and the photographs are very instructive as regards the illustrated species and as aesthetic standards in specimens and photographs. But don't rush to your library and order it straight away - I've got it on long loan provided no-one else asks for it! Get my drift?

This monumental work, first published in the years 1913-1923, has been reprinted by the Rochester Academy of Science, New York, in an affordable paperback edition (originals are worth nearly £2,000). The BMS decided at the Leicester AGM to use some of its surplus funds to buy a set for use by members. We can expect delivery of the first two volumes in May this year and the remaining seven will be forwarded as they are printed. For those not familiar with this important work a brief description will be useful. The original consists of 9 large-format volumes of figures and 9 complementary volumes of text. The former contain crystal drawings of hundreds of species arranged alphabetically by the German name current in 1913-1923. Within each species the drawings are arranged by habit. The number of drawings per species is very variable; rarities may be shown by just a few, others by several hundred: for instance there are 460 anglesite drawings in volume 1, and volume 2 is nearly all calcite! Each drawing is complete with its index letters or numbers but there is no other information. Most of the drawings are taken from the literature and a reference to the original paper(s) is given in the corresponding text volume along with the locality of the figured crystal. Tables are also given to show the correlation between the different methods of crystallographic notation used in the figures. There is, unfortunately, no locality index so finding illustrations of species from a given location can be a laborious process. (The Mineralogical Record tried to make such an index but the result was so inconsistent that they feel unable to publish it as it is and have no facility to upgrade it.) The new reprint will be complete in nine volumes of combined atlas and text.

Independent representations to the Birmingham City Library and to the British Document Supply Centre at Boston Spa (by Roy Starkey and myself respectively) have resulted in these two organisations also buying sets of this new reprint. So there should be ample opportunity for readers to see copies of this unique and fascinating work.

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UK JOURNAL OF MINES AND MINERALS

The second issue of this 'new' magazine, otherwise known as "Rockbottom 2", is just off the press. Yes, off the press and not out of the photocopier: the latest copy has been properly typeset and printed on coated paper, and looks most professional. Prominent among the dozen or so articles is one by BMS member David Green detailing his researches into the slag minerals of the Meadowfoot smelter, Wanlockhead. The many exotic species that occur (all identified by XRD) are fully described with many SEM photographs. Copies will be available at the London Show or direct from BMS member Jean Spence, price £3.00 plus 50p P&P.

JOURNAL OF THE RUSSELL SOCIETY

Vol. 1 No. 4 is now available. This issue is dominated by Bob King's continuing study of the care of minerals which is rapidly becoming the standard work in the field. This article pays special attention to the storage and cataloguing of collections and the particular problems of toxic and radioactive species of which a full (and frightening!) list is given. Every collector should be aware of the guidelines in this article. Several other contributions cover new finds and research in various British localities. For copies contact: Dr R J King, National Museum of Wales, Cathays Park, Cardiff CF1 3NP.

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BRITISH MICRO LOCALITIES NO. 16

David Green

Rhuba a' Mhill, Islay

Rhuba a' Mhill is a small headland jutting into the sound of Islay near the distillery village of

Bunnaheahainn, Argyllshire, Scotland. 30 Yards south of the headland, (Grid Ref. NR424 731), an area of limestone stained conspicuously green by copper minerals is exposed. Below this, vuggy metamorphosed limestone outcrops sporadically. A trawler, grounded by the strong currents in the sound provides a conspicuous nearby landmark. A variety of minerals can be collected from the exposure and from boulders on the surrounding beach. Perhaps the most interesting of these is the rare copper chloride paratacamite.

### Minerals

Aragonite	A recent formation found as acicular crystals coating paratacamite or as coralloidal growths.
Barite	Occurs infrequently in the vuggy limestone as platy crystals associated with quartz calcite and dolomite.
Calcite	Found as orange or white scalenohedral crystals to 10mm, these are usually translucent and occasionally double terminated. Some crystals are coated with a stepped overgrowth of second generation calcite. Tourmaline inclusions are common.
Chalcopyrite	The only primary ore mineral, occurring in steeply dipping veins with calcite.
Copper	Very rare, almost all the copper having oxidised to cuprite, found as minute malleable masses.
Cuprite	Occurs in cavities on the jointing planes, as typical wine red octahedral crystals.
Dolomite	Orange/brown dolomite crystals coat many of the limestone vughs.
Goethite	Found occasionally as black stalactitic growths on dolomite. (Limonitic encrustation is also often present.)
Malachite	Much the most common copper secondary mineral, staining large areas of matrix green. Botryoidal crusts occur within the chalcopyrite veins.
Paratacamite	Uncommon, found as dark emerald green sharp pseudo-octahedral crystals to 0.3mm dispersed on dolomite; in the chalcopyrite veins; and on joint planes in the rock. One of the last minerals to crystallize, probably formed by the action of seawater on the chalcopyrite. (Identification by X-ray diffraction.)
Pyrite	Very rare, as small cubo-octahedral crystals.
Quartz	Found commonly as smokey or clear crystals to 10mm. The pyramid faces are usually well developed with prisms small or absent bipyramidal (double terminated) forms are common. Calcite and dolomite are common associates as is included tourmaline.
Tourmaline	Occurs as minute black acicular crystals in cavities in the vuggy limestone. Usually included in quartz calcite or dolomite. An early mineral in the paragenesis.

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### BRITISH MICRO LOCALITIES NO. 17

David P Clough

#### Little Duke Mine

Tavistock Hamlets, Devon  
O.S. Sheet 201 SX 471 695

This old mine is situated within Blackmoorham Wood, on the west bank of the River Tavy and opposite the Virtuous Lady Mine, approximately 3 kilometres north-east of Bere Alston.



Records of production (Dines, 1956) show that the mine produced 40 tons of copper ore in the year 1824, and 166 tons of arsenopyrite in the years 1907 and 1908.

There appear to be no open shafts and the only accessible workings are an isolated area, probably part of, or just above, the 10 fathom level adit, and the 20 fathom level adit, the latter currently dewatering.

The area of particular interest, on the crest of the valley slope, approximately 100 metres east of the disused railway cutting, and at the grid reference given, is the 10 fathom level adit, of which all that is visible today is a large channeled depression (possibly resulting from the collapse of the back of the adit level or of a stope) leading to the present entrance at the top of a large slope, composed of earth and decomposing leaves, leading down into the workings. Inside this entrance, and at the bottom of the slope, are two very short drives of only a few metres length, sited one above the other.

The lode exposed in each drive is composed principally of massive arsenopyrite with sporadic areas of other associated sulphides, including pyrite, chalcopyrite and bornite. In places, where the lode and wall rocks become vughy, well developed crystals of arsenopyrite and pyrite can be collected.

The two most interesting mineral species occurring within this area are as follows:

**Anatase  $\text{TiO}_2$**  Occurs as sharp, translucent to opaque, metallic, blue, thin to thick tabular and bipyramidal crystals, up to (but rarely reaching) 2mm in size, usually associated with chlorite and strings of arsenopyrite and other sulphides.

**Cassiterite  $\text{SnO}_2$**  Occurs as rare, transparent to opaque, yellowish-brown to brown, prismatic and pyramidal crystals, with adamantine or resinous lustre, up to 0.15mm in size, in a similar association to the above.

The anatase has been observed in both drives, but occurs more frequently and well crystallised in the hanging wall of the lode exposed in the lower drive. The cassiterite has only been observed well crystallised in the lower drive, but might be expected to occur more widely.

The anatase, cassiterite and chlorite have been confirmed using microprobe and X-ray diffraction techniques. All other species mentioned have been visually identified only.

#### Reference

Dines, H.G., 1956, 'The Metalliferous Mining Region of South-West England', Vol. II, p.679-680.

#### Further Information

Collins, J.H., 1892, 'A Handbook to the Mineralogy of Cornwall and Devon', plate III, figs. 72,73.

#### Special Thanks

G Jenkin, Department of Geology, Glasgow University.

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BRITISH MICRO LOCALITIES NO. 18

David P Clough

#### Wheal Rose

Porthleven, Helston, Cornwall.  
O.S. Sheet 203 SW 638 249

This very old mine is situated approximately 1400 metres south-east of Porthleven. Remains of the mine workings can still be seen on both sides of the rough track leading from Porthleven to Loe Bar, including the sites of a number of shafts and several extremely overgrown dumps.

The area of particular interest, and which forms the basis of this note, is the small, very overgrown dump surrounding North Shaft, situated towards the top of the field at the grid reference given (indicated on O.S. Pathfinder Series 1:25000 maps).

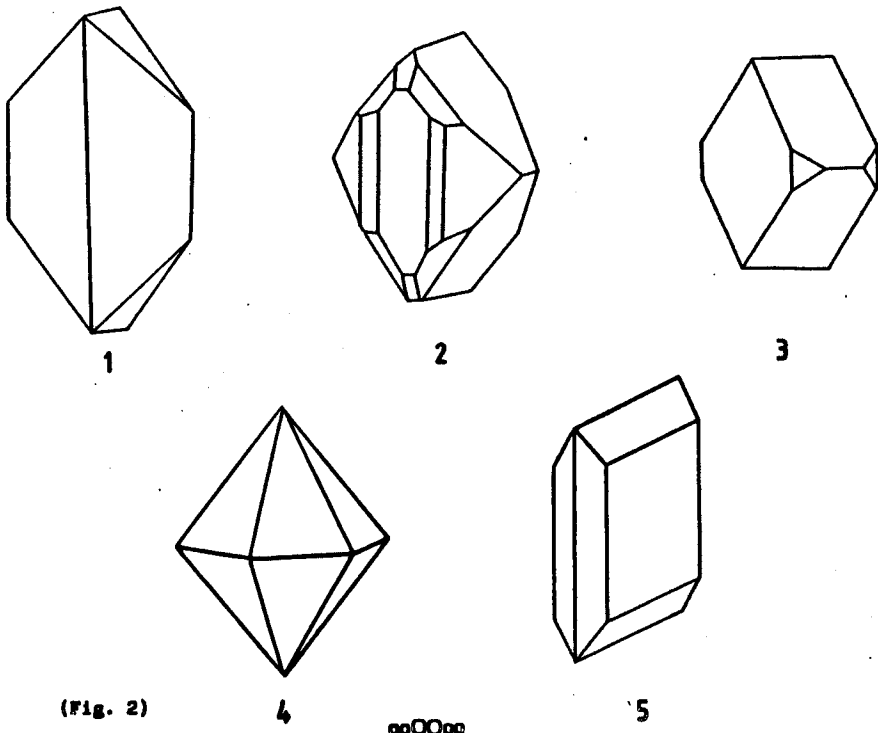
Mineral species present on the dump include galena, pyrite, chalcopyrite, siderite, goethite, limonite, pyromorphite and most interestingly cerussite and anglesite, occurring in quartz/siderite and quartz/ironstone matrix. The latter matrix occurs as geodes up to 15cm maximum dimension and lined with velvety black mammillary limonite/goethite(?).

All species mentioned have been visually identified only, the cerussite and anglesite in particular by their crystal morphology.

Original permission to collect from the site was obtained from Mr Lane, the farm owner, on condition that the dump material be kept out of the field. Any members wishing to visit the site should seek permission from him at Higher Penrose Farm.

Anglesite  $PbSO_4$  Occurs as colourless to white, transparent to opaque, prismatic and tabular crystals to 10mm. (See fig. 2, sketches 1, 2 and 3.)

Cerussite  $PbCO_3$  Occurs as colourless to white, transparent to opaque, prismatic, tabular, acicular and less commonly bipyramidal crystals to 10mm, exhibiting numerous fine examples of twinning and polysynthetic growth. (See fig. 2, sketches 4 and 5.)



(Fig. 2)

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## OVERSEAS NEWS

Greece D G Minatidis writes to us from Piraeus to announce a new mineral newsletter and the first Greek mineral show. The former is called "ORYKLOLOGIKA NEA - NEWS ON MINERALS", is bilingual (Greek-English), and was due to start publication in January 1987. Six issues a year are planned and UK subscription rate (air mail delivery) is £25 per year. The mineral show is to be a three-day event (exact dates and location to be announced) in end September - early October. Anyone interested in either of these items should contact Mr Minatidis at 70 Queen Sophia Avenue, Piraeus 185 32, Greece, tel. 4171-680.

Tasmania A short report in the South African Micromount Society's January 1987 newsletter records that the Red Lead mine at Dundas, Tasmania has recently run out of crocoite and there are doubts as to whether there will be any more found. Pessimistic reports of this kind surface from many of the world's great specimen localities from time to time and Tasmanian crocoite has been off and on the market several times in the last 20 years. Perhaps there, as here, output is defined by the determination (or recklessness?) of each generation of collectors?

California By the time you read this it will be too late to attend the Southern California Micro-mineralogists 22nd Pacific Micromount Conference (Feb 6-8) but not too late to ponder over an entry in the listing of motels convenient to the conference site: The Saga Motor Hotel, Pasadena offers, for \$65 plus tax, a "suite with king size bed for 3 persons".

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## IRISH ZINC

A large deposit of high grade zinc ore has been discovered in Ireland at Galmoy, Co. Kilkenny. A report in the Sunday Times (30.11.1986) is strong on the financial and organisational consequences of the find but gives no details of the micromount potential of the deposit, which is said to be "300 feet under a wind-swept hillside". Test drilling is still taking place but the prospectors and other interested parties (who include RTZ and Outokumpu) are optimistic about the outcome.

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## CORNISH TIN

Reports that Geevor had closed (see last newsletter) were apparently premature: the mine is still open and has been raising some ore from previously broken ground. Wheal Jane and South Crofty are still undergoing belt-tightening operations and have cut production costs considerably in the past year. Metals other than tin - especially in the Wheal Jane deposit - have become more attractive and may buffer costs against the poor price of tin.

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## SLAG MINERALS

MP Cooper

Whatever ethical misgivings one may have about slag minerals one cannot deny that they are flavour of the month among many amateur collectors and that slags may contain many rare and unusual species. The exotic minerals found in the Laurium slags (strangely enough the only slag locality almost universally approved - though why it is different from any other in principal is beyond the writer) have excited both amateur and professional mineralogists for many years. A concerted effort is now underway on slags from other sites and several new species have been described from slag parageneses in recent years.

As an aid to those interested in this field I am compiling a bibliography of slag mineralogy which I hope to include in the next newsletter (July/August). Please send me your suggestions for references to include.

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### CHEMICAL HINTS

Max Wirth

Mimetite and pyromorphite are usually indistinguishable at a glance. The same applies to quite a few arsenates and phosphates, particularly those from Cornwall.

Fortunately there is a very easy and sensitive chemical test which depends on the fact that arsenic acid is an oxidising agent.

A very small sample, maybe just visible to the naked eye, is placed on a microscope slide and treated with a drop of hydrochloric acid (50/50 water and conc. acid). Most phosphates and arsenates will dissolve fairly readily even at room temperature.

Potassium iodide solution (freshly prepared from a minute amount of solid KI dissolved in water) is spotted onto filter paper (or any absorbent paper) and the solution to be tested is spotted on the edge of the KI spot. If arsenate is present it will immediately turn dark brown or pale brown if only a trace of arsenate is present. Don't forget that the solid solution series pyromorphite-mimetite is almost complete, and a positive arsenate test will not distinguish between mimetite and highly arsenian pyromorphite.

It is important not to use an oxidising acid like nitric. The test is obviously of no use for arsenides or arsenites. It has been tested with pyromorphite/mimetite, with pharmacosiderite, with what is believed to be cornwallite and with bayldonite.

Potassium iodide is not classed as a poison and should be available from chemists. One gramme would last a long time.

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### NATIONAL REFERENCE COLLECTION

New rules for the acquisition and use of specimens for the BMS National Reference Collection have been drawn up and approved. They are published below. The Curator, Max Wirth, reports that almost all of the collection is now properly mounted and "very nice it looks too". Thanks are due to Peter Braithwaite for his help in mounting.

The purpose of the collection is to allow members of the British Micromount Society to study the specimens and learn from them for the benefit of themselves and others.

#### RULES

1. The collection will consist only of specimens from Great Britain and Ireland.
2. The use of the material from the collection is open to any fully paid-up member of the Society.
3. The information about locations, provided on the accompanying index slips, is CONFIDENTIAL to members only.
4. Specimens will be mounted on a card bearing the mineral name, a short location name and the accession number. The specimen will fit into a standard 2.5 x 2.5 x 2.0cm box.

## CONDITIONS

1. Specimens submitted must be of clean, well crystallised and high quality material. Exceptionally, rare minerals not normally occurring as distinct crystals will be accepted.
2. Specimens must be supplied ready trimmed but NOT mounted and no box is required as this will be provided by the curator.
3. Each specimen must be accompanied by a fully completed standard index slip (blanks may be obtained from the curator).
4. Unless there is no doubt about the identity of a mineral, its name should be followed by (?).
5. Specimens should be posted to the curator at the address given below.
6. The curator may, at his discretion, have an identity checked with minimum damage to the specimen.
7. Requests for specimens should be made in writing to the curator, stating the accession number and the mineral name. The current postage cost (55p) should be included, preferably in the form of stamps.
8. Ten, twenty or thirty specimens may be requested at one time and the loan period of one month can only be extended for valid reasons and by written request.
9. Specimens must not be removed from their mount and should be returned in their original packing.

## GUIDLINES

1. The grid reference of a location should be given to the nearest 100m, that is e.g. for Wheal Unity, St Day, Cornwall as SW 733 428; the eastings first, read from the top or bottom of the map, followed by the northings read from the sides. Don't forget to record the grid letters and to leave spaces between the two sets of figures.
2. Photography of specimens is encouraged and copies of transparencies would be welcomed for donation to the Society library. In the event of publication of photographs, acknowledgement should be made to the British Micromount Society National Reference Collection.
3. It would be appreciated if a 'payment in kind' of two new specimens for the collection were to be returned if possible after each loan.
4. Before sending in specimens, it is generally a good idea to rinse them thoroughly in water with a little detergent added, to remove dust.
5. If a donor knows of a literature reference to the site, this should be indicated on the reverse of the index slip, together with any other information.

Max M Wirth  
5 Ferney Green Drive  
Bowness on Windermere  
Cumbria LA23 3HS

PLEASE NOTE NEW ADDRESS

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## MINERAL ANALYSIS

Society member Gary Nichols writes to us on behalf of his company Micro-Analysis Consultants Ltd (Unit 3, Edison Road, St Ives Industrial Estate, St Ives, Cambs., PE17 4LF) offering a very competitively priced speedy analytical service for mineral collectors. His letter is reproduced below. Quoted rates are "considerably less than would be charged to an industrial customer".

"Micro-Analysis Consultants Ltd can offer you a fast mineral identification service at a price to suit your pocket. We are very aware that most mineral collectors do it as a hobby and so cannot justify spending a lot of money on having their samples identified or authenticated.

Our mineral identification service using X-ray powder diffraction offers you the following:

- RAPID SERVICE - usually 1 to 3 days
- REASONABLE COST - £6.50 per sample (with minimum of two samples). For six or more samples submitted on one occasion, the cost is £5.50 per sample. These prices do not include VAT.
- CERTIFIED RESULTS - a certificate giving the analytical results will be supplied for each specimen.

Should a qualitative chemical analysis for the major and minor elements in a specimen be required, we can do this using our scanning electron microscope which is equipped with an energy dispersive X-ray microanalysis system. The charge for this service is £5 plus VAT.

Now that you've decided to send some samples for analysis, what do we want?

- (i) each sample must be clearly labelled so that you can match the results with your original specimens.
- (ii) if possible, just send a representative sub-sample of the mineral in question e.g. a few crystals or a fragment. If the entire original specimen is to be sent please ensure that we know which mineral phase is to be analysed and allow sufficient postage so that we can return the specimen.

If you have any enquiries regarding this service, please contact GARY NICHOLS at Micro-Analysis Consultants Ltd."

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#### COLLECTING HOLIDAYS

Micromounter Sheila Harper (who claims to have more unmounted micros than anyone else) is also co-proprietor of the Chichester Guest House (14 Bay View Terrace, Newquay, Cornwall, TR7 2LR). They offer a range of "Interest Holidays" from March to October covering various aspects of natural history, archaeology, Cornish gardens, and, of course, mineral collecting. Courses run for one week and cost £94 for adults, £64 for children. The review of 1986 season in the Chichester's 1987 newsletter suggests a good deal of enthusiasm, and a good time had by all. Contact Sheila or Steve Hebdige at the above address or phone 0637-874216.

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#### SUBSCRIPTIONS 1987

Subscriptions for 1987 were due on January 1st, being £3.50 single members and £5.00 family membership. It is in your own interests to pay promptly as this will be your last Newsletter and your membership will lapse if your subscription has not been received by June 1st, 1987.

Please send your subscription to Neil Hubbard, the Membership Secretary (NOT to the Treasurer) whose address is on the front of this Newsletter.

E HANSFORD  
Secretary

ooOOoo

CHANGE OF ADDRESS

Michael Jackson, 26E Shotesham Road, Poringland, Norwich, Norfolk NR14 7LN, Tel. No. 050-86-4790

Mike Leppington, 1 Harrot Hill, Cockermonth, Cumbria CA13 0BL, Tel. No. 0900-823441.

Barrie Macdonald, 49 Kirkland Road, Leicester, LE3 2JQ, Tel. No. 0533-827106.

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NEW MEMBERS

Kenneth Savage  
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David Roe  
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Worcester  
WR1 3JJ  
Tel. No. 0905-612239

Gill Weightman  
c/o Earth Science Section  
Leicestershire Museums  
96 New Walk  
Leicester LE1 6TD  
Tel. No. 0533-554100

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ADVANCE DATES TO NOTE IN YOUR DIARIES

- |                                  |  |
|----------------------------------|--|
| Saturday June 20th               | MEDWAY GEM & MINERAL FAIR 10am - 6pm<br>Hempstead Valley Shopping Centre<br>(M2 Motorway - Junction 4)   |
| Saturday/Sunday<br>October 3/4th | BRITISH MICROMOUNT SOCIETY'S SYMPOSIUM<br>Leicester University   |
| Saturday November 7th            | GEOLOGICAL ASSOCIATION RE-UNION AND<br>FEDERATION OF LAPIDARY AND GEOLOGICAL<br>SOCIETIES EXHIBITION - London University Buildings,<br>Gower Street, London WC2. |
| Saturday December 5th            | AMATEUR GEOLOGICAL SOCIETY'S BAZAAR<br>Golders Green (Nr Underground Station), London NW11.  |

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BRITISH MICROMOUNT SOCIETY

NEWSLETTER EDITOR

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

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