# BRITISH DIRECTORY OF MICROMOUNTERS

NEWSLETTER No.1 - June 1981



This is the first newsletter to be produced in association with the British Directory of Micromounters, and as such represents something of a landmark in the development of Micromounting in the UK.

I first had the idea of producing a British Directory around Christmas time last year, and when Dave Neal of the Harlow Rock and Mineral Society invited me, and the West Midlands Mineral & Mining Society to put on a display at the British Mineral and Gemshow in Leicester my mind was made up. The Show, would surely be an ideal platform from which to launch such a venture. This indeed proved to be the case, and by the time the Show closed at 5.0pm on the Sunday, about 30 people had registered, and duly paid their 50p.

Since that time I have written to dealers, suppliers and Societies up and down the country, who were not able to attend the Leicester Show, and the total number of interested parties now stands at 38.

I firmly believe that the Directory will grow from strength to strength and will be well placed to play a useful role in furthering the study and promoting our mutual hobby of micromounting.

## FORMATION OF A NATIONAL ORGANISATION ?

The next obvious development from a listing of names and addresses would seem to be the establishment of a national club or society in some shape or form. The exact details and organisation of this would have to be sorted out over a period of time by all those involved. To this end, I enclose herewith a revised application/registration form which hopefully overcomes some of the ambiguities and failings of the original document which circulated at Leicester, and ask that you <u>DO PLEASE</u> complete and return it to me. I propose that we aim to produce a newsletter 3 times annually, or quarterly if there is sufficient material to justify it. The Directory will appear as a revised 2nd Edition next summer, and then probably bi-annually would be sufficient. To enable us to do this I suggest that we make an annual subscription charge of £1.00, this to be payable immediately for 1981, and thereafter on 1st January each year. Production and distribution of the Directory has slightly exceeded funds in terms of costs, but this can hopefully be recouped through everybody's £1.00 subscription payable now, when returning the completed registration form.

## NEWSLETTER MATERIAL

I hope that the newsletter will develop into a recognised publication in the Micromount field, and will contain articles (few words to a few paragraphs) by members, hints and tips on techniques e.g photography of micromounts, cleaning and specimen preparation, book reviews, and references to useful publications and papers etc. I hope also that it may be possible to produce a 'Bumper Swap List' Edition at Christmas each year, starting with the December 1981 edition. The idea of this being that everyone sends in a list of the spare/surplus material which they may have available for exchange, together with a 'Wants List' and that the two together will be reproduced and circulated to all members. Another useful feature would be a 'For Sale' and 'Wanted' column for microscopes and equipment/boxes etc. Any contributions for the next newsletter including entries for the 'Swap List' to my address please NOT LATER THAN 1st NOVEMBER 1981. Thankyou. R.S.

## BRITISH MINERAL & GEM SHOW 1982

There is space on the new registration forms to indicate whether you are interested in supporting a stand at the BM&GS 1982, and also a w/e Micromount Symposium. Please let me have your comments and ideas as soon as possible, because firm bookings for stand space must be made very shortly. The Show will provide a good 'shop window' for our newly formed National body, and may help to swell membership, and also entries for the 2nd Edition of the Directory - due out June 1982. R.S.

# INTRODUCTION TO MINERAL MICROMOUNTS - C.P.Horstman.

The technique of thin sectioning rocks and minerals for examination by polarised light is well-known to microscopists, but whilst this is of immense value in the laboratory, it is of little help in the field recognition of minerals. Universities and other institutions therefore keep extensive collections of hand specimens to aid in visual identification Quite apart from the fact that many minerals are not available in hand size specimens, the private individual rarely has the room to store, let alone display several thousand specimens. Advantage can however be taken of the fact that crystals scale perfectly, micro-specimens being perfect miniatures of large ones.

My interest in mineral micromounting was aroused when a visitor from the U.S.A. gave me a beautiful micromount of Azurite from Bisbee, in exchange for a local Celestite specimen. I did not then fully appreciate the merits of the system, but on a visit to Los Angeles in 1974, I went to an evening meeting of the Californian Micromineralogists. There were about 50 people present, nearly all with their own stereo binocular microscopes, and selections from their collections. The competition that night was on Uranium minerals. They had a beginners table and on this I was shown how to go about mounting, and sent off with a specimen and promise to start when I returned to Bath. I also visited several micromounters and their collections were around 2000-3000 each. Quite a highlight was a visit to the Geology Museum of the University of California where I was taken'behind the scenes' to see their micro collection. These visits brought home to me the prime merits of micromounting - compactness and portability. Three thousand will easily go into the drawers of an office desk and still leave room for kit!

The essence of micromounting is that the specimen is supported on a black stalk in a black-lined box with a transparent lid. In the U.S.A. the box is standardised at 24mm by 24mm by 19mm, and the level of the specimens inside the box is kept uniform so that collectors can exchange specimens rapidly and examine them without extensive re-focussing. The secret is in good lighting, and the matt black lined box permits a high level of illumination without glare. The specimen being uncovered only for viewing, keeps clean and undamaged. Dust is the micromounters worst enemy.

How does one go about micromounting ? It is easier to do than to explain but the outline is as follows... The boxes are prepared in bulk by cementing a disc of cork to the centre of the bottom inside, and painting the inside matt black. The stems of balsa wood are also prepared in advance by trimming the ends of pieces several inches long and blackening them with a spirit marker or black paint. A range of different sizes is kept to hand. The specimen is cleaned after trimming and placed face

- 2 -

down on a piece of soft sponge. A stem is selected and the tip trimmed to fit the mounting position on the specimen. A spot of adhesive is placed on the specimen and on the stem, then both are allowed to dry. A further trace of adhesive is applied to the stem to activate the surface and it is immediately brought into contact with the specimen. The whole can then be turned the right way up and adjusted before leaving to dry completely.

The adhesive should be assolvent type (Titebond RC4220, Bostik Clear etc.). Epoxy adhesives should not be used as it will be almost impossible to remove if accidental damage necessitates remounting. When quite dry the stem is held with 'Z' forceps just below the specimen and cut to length. It is cemented to the cork pad with the same adhesive. The box cover may be engraved and filled white, or lettered in white enamel or with white transfer lettering. The box itself should bear at least the standard label data (name,formula,locality,serial No.)

This description is necessarily brief, but the only book I am aware of on the subject : 'THE COMPLETE GUIDE TO MICROMOUNTS' by MILTON L.SPECKELS, is a mine of information. It is published by GEMBOOKS, MENTONE, CALIFORNIA, U.S.A.. It is not normally available from booksellers, but can usually be obtained from Tideswell Dale Rock Shop, Commercial Road, Tideswell, Derbyshire. Price about £1.50. C.P.H.

#### BOXES FOR SALE

Colin Horstman has a quantity of standard 24mm by 24mm by 19mm clear plastic micromount boxes for sale. These have clip-on, not hinged lids, and are the type used for standard competition work in the U.S.A. If anyone would like to obtain some of these boxes, please write direct to Colin - 80,Newbridge Road, BATH, Avon. BA1 3LA. Prices as follows:-20 boxes £4.40 inclusive of Post etc; 50 boxes £8.70 inclusive of Post etc; 100 boxes £14.90 inclusive of Post etc.

# CLEANING TIP No.1

'Napisan', 'Boots Nappy Cleanse' or equivalent is a very useful cleaning agent in the removal of thick plastic clay (as typically found underground in mine workings) from delicate crystals. A warm solution of the powder is prepared to roughly the strength indicated on the pack, and the specimen lowered gently into the solution. I have found that a soak of 1 - 2 hours is usually adequate, followed by a rinse in clean warm water. In cases of very heavy deposits of clay, a further immersion in clean 'Napisan' may be necessary. The beauty of this reagent is that no abrasion is required in the cleaning process. The clay particles just float off and fall to the bottom of the container. The solution appears to work particularly well on Pyromorphite crystals, which would otherwise be nearly impossible to clean. R.S.

## NEW REGISTRATION FORM

The new enlarged registration form covers several areas that were not included in the original document circulated at the Leicester show and it may be a good idea to explain why we have included these.

The two questions relating to length of time collecting avoid the ambiguity that resulted from the original single question, and will clearly specify how long an individual has been collecting micromounts, as opposed to general specimens.

Listing of microscope type may be of assistance to newer devotees, or members considering buying a new instrument. It should be possible to gain an objective, unbiased appraisal of any given microscope by a present owner/user.

- 3 -

Expertise in identification amongst the membership may be a valuable resource to the less experienced collector, or to anyone with a 'difficult' specimen. e.g. rarer secondary copper minerals. If you do feel able to assist in any way, please indicate on the registration form.

The general questions relating to 'interests' are largely self-explanatory, but it may be aswell to add a few notes.

Photography of micromounts is not any easy pastime, based on my own experience, but can be very rewarding. It would be interesting to learn of the different 'sealing wax & string'methods being employed by individuals. No doubt the photographers amongst the membership will be able to provide some transparencies for the first 'get-together' - hopefully at the British Mineral & Gemshow 1982.

Postal exchanges may be one of the direct results of the publication of the Directory, and the control of this must be left to individuals. Here again, any tips on light-weight protective packaging methods etc. would be of interest to the majority.

Annual Field Meeting - this may be possible to arrange, possibly as a camping weekend, or a day-trip. The venue may be problematic given the widespread nature of the membership. Any suggestions/observations would be appreciated. Judging from the map in the Directory, Mid-Wales is probably the most suitable area for a meet.

Weekend Micromount Symposium - here we had in mind a meeting, probably Sat./Sun., where undercover (from the weather) with powerpoints available, members could gather to exchange specimens, examine each others collections, and possibly put-on or listen to illustrated talks. As a first step, perhaps one day of the British Mineral & Gem Show 1982 might be set aside as a trial exercise.

# BUMPER NEWSLETTER EDITION - DECEMBER 1981.

As noted elsewhere in this newsletter we are hoping to produce a bumper edition for December, including listings of 'Swap-Lists' and 'Wants-Lists' for all members. If the response to this is good as we anticipate, a large amount of duplicating will be required, and in order to reduce the workload PLEASE NOTE THE FOLLOWING :-

1.Swap Lists should indicate Species & Locality(Approximate) e.g. Xtline Pyromorphite, Roughtongill Mine, Cumbria.

- 2.Wants Lists please don't list all the minerals you haven't got ! General requests only please e.g. Cornish secondary Copper minerals. Zeolites.
- 3.Both lists must be legible. Preferably they should be typed onto A4 size plain paper. If you can't get them typed - please <u>PRINT</u> clearly - again on PLAIN paper.

4.Please submit the lists as soon as possible.(Not later than 1.11.81

5.If we can't read it - we can't print it !

## BULK - PURCHASE OF MICROMOUNT BOXES

I have been investigating the possibility of bulk - buying micromount boxes direct from manufacturers in the U.S.A., and have received quotes from several suppliers. It does look as though savings could be made by groups of individuals'clubbing'together, but it is not yet clear how substantial the savings will be when carriage costs, both from the U.S.A. and within the U.K. are taken into account. I hope to produce a full

- 4 --

report in time for the December Newsletter. If you might be interested in participating in placing a bulk order, please indicate how many boxes you would be interested in purchasing, and approximately how much you want to spend (Total), on the reverse side of the registration form. Thankyou. R.S.

#### MICROMOUNTING ?

What do you mean by micromounting? Probably this is a silly question since we all know that micromounting is the preservation of small geological specimens in boxes and viewing them with the aid of magnification.

Or is it? Do we all have different ideas about micromounting? Here are some thoughts that might provoke discussion.

A specimen to be mounted should have certain qualities. It should have an aesthetic quality, in other words it should be good to look at. But would this always hold true? What about a rare mineral or a rare locality? Would it be right to add this to a collection even though it may not look good?

How far should a specimen be trimmed? Should it be trimmed so far that only single crystals are mounted? But what about more general information that can be obtained from the matrix? Maybe specimens should be mounted on matrix. Probably complex associations of minerals can be seen best on matrix. Is it worth the risk of removing most of the matrix? Often close trimming destroys a specimen.

Should a specimen be permanently mounted? How many specimens present the problem of which face should be destroyed by glue? How long will glues, pedestals, even boxes last? Will they last as long as a mineral specimen? Some collectors may prefer to use a putty like 'Blu Tak' for mounting. Is this a more flexible medium? It may allow for re-arrangement of a collection. However does it have the craft skill necessary to make a permanent mount?

Indeed is the idea of a permanent mount central to micromounting? Is the craft aspect important or is micromounting just about minerals? If it is just about minerals then it does not really matter how the mounting is done.

Whatever your views, one thing is certain, micromounting is an interesting and enjoyable way of collecting and preserving minerals. I think what I am saying is that micromounting is what each collector makes of it; everybody is entitled to their own opinions.

P.S. Why micromount only minerals? What about micro-fossils?

#### Paul K. Monk



Discovered in 1722, the mines were worked between 1724 and 1872. They produced about 3300 tons of lead ore which yielded approximately 2400 tons of lead and also 7400 ozs. of silver.

Very little remains of the mine buildings, only Bellsgrove Lodge which was the house of the mine manager.

#### Minerals

Galena, blende, barite, pyrite and quartz, all mainly massive. Strontianite - green - occurs in calcite in the Whitesmith mine. Harmotome - can usually be found on the tips below Grand level entrance opposite Bellesgrove Lodge.

Brewsterite - is abundant on the tips by Whitesmith Level. Calcite - some very interesting crystal forms can be found on Bellesgrove Lodge tips.

Mike Bayley.