

BRITISH MICROMOUNT SOCIETY



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www.micromounters.org.uk

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JOHN DICKINSON 1923 – 2004
Richard Bell

John was born on 29 July 1923 at Great Altcar in Lancashire and died of lymphoma on the 11 December 2004. He had been ill for a while.

John had been trained as an Industrial Engineer and began his career at Unilever in 1952. He was immediately sent to Norfolk to help set up the Birds Eye factory there. In 1958 a similar assignment in New Zealand followed for four years and then on to Aberdeen in Scotland in 1962 for another four years. Two more years at headquarters in London followed before John finished his career with Unilever in Port Sunlight and retired in 1982.

John was a keen amateur geologist and attended courses at Night School. He was also a very keen gardener. He became a member of The British Micromount Society in 1982 and attended virtually all of the Symposia between then and 2002. John really enjoyed the Symposia and always had time to talk to people. Even when out on field trips John would always try to explain to sometimes sceptical landowners exactly what it was he was looking for, even to the point of lending them his eyeglass.

John was regarded by all his friends as a real gentleman, he even acquired the nickname “Lord John of Wirral”, given to him by his friends in the Norfolk Branch of the BMS which was a source of great amusement to him.

John will be greatly missed by all his mineral collecting friends.

Our condolences go to his wife Pauline, to his sons Roger and Ian, and to his daughters Chrissie and Claire.

ANOTHER SAD FAREWELL - MILTON L. SPECKELS
Quintin Wight

In another crushing blow to the micromounting community, Milton Louis Speckels, author of the little pink book we all know so well, died of a massive heart attack on Saturday, May 15th, 2004. Milton, better known as "Speck" by his friends, was born on 13 May, 1911, in Coupland, Texas, and died just two days after his 93rd birthday. Holding a Bachelor of Science Degree in engineering administration from Texas A & M, Milton worked for the U.S. Bureau of Reclamation as a materials engineer on major dam sites in Texas and Arizona. Called up under an R.O.T.C. commission in 1942, he attained the rank of major with U. S. Army before his discharge in 1946. In 1954, he took up an engineering position at the Naval Weapons Center at China Lake, California, and retired there in 1975.

Milton attended the very first Baltimore Micromount Symposium. He was the first Micromount Chairman (1960-63) for the California Federation of Mineralogical Societies. At that time he reinstated the micro-mounters' trading list and started writing the column “Micro News” in Gems and Minerals magazine. This column became the basic source of information for his book, The Complete Guide to Micromounts (1965), that quickly became a standard for the hobby. Because

his publisher limited him to 100 pages, including the covers, Milton was forced to condense his writing. In doing so, he squeezed an enormous amount of information into one small volume. He had it reprinted in 1993, enjoying a similar success at that time.

In 1966, he received the American Federation of Mineralogical Societies' National Trophy for Micromounts. Milton was a charter member of the Southern California Micromineralogists, and was Program Chairman for their first three Annual Conferences. He was also a member of the Northern California Micromounters Association, and the Northwest Micro Mineral Study Group in the State of Washington, and was a Life Member of the Mineralogical Society of America.

Once his interest in mineralogy began, Milton took ore courses in mineralogy and crystallography, and turned to the scanning electron microscope (SEM), discovering new crystallographic data. He had a wide interest in minerals, but specialized in the zeolites, publishing many locality discoveries. One of his last articles was "Microminerals at Rock Island Dam, Douglas County, Washington" in the May/June 1991 issue of Rocks & Minerals. Most of his large micromount collection (5,200 cataloged specimens) originated in the western states. The collection was put up for sale before he moved to a retirement residence. Sales at Tucson and other shows have since spread them across large parts of the world. An accomplished 35-mm photographer, he presented slide shows of his minerals at club meetings museums, mineralogical shows, and symposia. His book, his columns, and a large volume of correspondence brought him recognition throughout the world as a master micromounter. For his efforts, he was inducted into the Micromounters Hall of Fame in 1991.

Above all, Milton was a friendly man. While on a visit to the Naval Weapons Center in 1974, my wife and I dropped by his home in Ridgecrest, California. We were complete strangers to him at that time, but he invited us in for tea, showed us slides and micromounts, and showered us with specimens to take home. His book is a standard, and so was he. He will be missed.

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BMS DIRECTORY OF MICROMOUNTERS - NEW EDITION

Mick Wolfe

With this Newsletter you should receive a new issue of our Directory of Micromounters. This is our 10th edition and, along with the name and address listing, is as current as I can make it what with members moving house and changing their email addresses, computer problems etc., etc. It's a bit like trying to nail down jelly at times.

Firstly I would like to thank those of you who took the time to send me their entry for the Directory. I hope I have included all your amendments and brand new entries correctly. Any corrections should be advised to me and I will include them in the next Directory (probably 2008). Corrections to the name, address, telephone number and email address listing however should be directed to Pearl Freeman to achieve a faster response through the Newsletter.

Secondly I would like to thank Mike Dannatt and Pearl Freeman for their efforts in organising the printing, duplication and distribution.

IMPRESSIONS OF 23RD BMS SYMPOSIUM

David Cox

These are the impressions of a "new boy" to the Symposium but who is in fact a long standing member of the BMS. I see that the earliest copy of my collection of BMS Newsletters is number 12 dated November 1984!

So, you may well ask, where have I been all that time? Difficult to give a good reason for my non-participation, some diffidence in the early days, no one in my vicinity to compare notes or standards of specimens with and a hesitance to 'take the plunge' and attend a Symposium. So I stayed in the background, content to receive the Newsletter, read other publications and collect micros as a sideline to my main interest in larger specimens. I was also involved with geology on a wider scale and this took up a lot of my spare time, and I was still working then.

This passive membership would have probably continued had I not read an appeal from Chris Jewson asking if there were members in the south west who would like to meet on an informal basis to share our common interest. I responded favourably and thus we started meeting in Liskeard, everyone was friendly, helpful and enthusiastic and this awakened a new enthusiasm in me along with the realisation that some of my material was as new to the others as theirs was to me. So micros took over!

I retired at about the same time as these meetings started so I had no excuse to neglect my collection and started to sort it out. However it still took several years to organise myself and book my place at a Symposium but this year I finally made it!

How was it for me at my first event? Not really knowing what to expect I was taken aback by the sight of row upon row of benches each with a full complement of microscopes, and a sea of unfamiliar faces. However Chris spotted me, called me over, and found me a space in on his bench so I was quickly absorbed into proceedings.

There was so much to do, trays and trays of micro's to be sampled, purchased or swapped, many and varied microscopes lined up to marvel at and of course talks to go to. These proved interesting especially the one on digital photography using Combine Z4 to overcome the problems of depth of field at high magnifications. Not that I aspire to doing it but just seeing the results projected onto a screen was quite inspiring. To turn an overworked phrase around, "Size Matters", the smaller the better and the more perfect in the world of crystals! So many things to remember, the Auction, the AGM, the Dinner that I had not booked to attend, expecting to be visiting family but when this fell through I was welcomed into the post-meal activities and was part of the runners up team in the Quiz.

I had put two entries into the micromineral competition, no I didn't win anything, I didn't expect to, but I learned a lot. While looking at the entries I joined in a discussion of the relative merits of the various entries compared with the winners and learned a lot, many thanks to those who patiently explained what should be aimed for when choosing a specimen for entry.

Yes I had a great time and it was clear that the organising trio had put a lot of effort and, no doubt, previous experience into making it a success. Will I do it again? Yes definitely, after all I have a lot of catching up to do!

CALDBECK COMMONS - MINERALS WORKING GROUP UPDATE

Roy Starkey

The following notes provide a summary of the discussion which took place at this meeting held at the Blencathra Centre, Threlkeld, Cumbria on 19th November 2004.

Attendees:

John Hodgson - LDNPA - Senior Archaeologist (Chairman)
Graham Standing - LDNPA - Ranger (North)
Brian Young - BGS
Hannah Townley – Geologist, English Nature
Jonathan Larwood – Geologist, English Nature
Jean Johnston – Local Environmental Officer English Nature
Anne Freeland - Cumbria RIGS
David Green - Manchester Museum
Mike Leppington - Amateur Collector
Richard Belson - Norfolk Mineral and Lapidary Society
Martin Stolworthy - Norfolk Mineral and Lapidary Society
Trevor Bridges - The Russell Society
Roy Starkey - British Micromount Society

John Hodgson welcomed the attendees to the meeting and briefly summarised the history of the Minerals Policy. He introduced the Discussion Paper “Reviewing the Permit System” which had been largely prepared by Hannah Townley, with Archaeological input from John himself. Three meetings had been held between English Nature and the LDNPA over the past year, and literature had been reviewed and several site visits made.

LDNPA recognise that the Policy had been fairly restrictive, and that large areas of exclusion had been created on a fairly ad-hoc basis. Some localities within the area had statutory protection and there were also three ancient monuments (Holcleugh Smelter, Carrock End and Carrock Mine). The Authority has to strike a balance between total restriction and a “free for all”. Focus had centred on GCR sites initially, but it should be noted that the entire area is an SSSI, and is thus subject to the Countryside and Rights of Way Act (CROW). The LDNPA Code of Conduct has been developed to provide a framework and there is a question as to whether this should apply more widely than to just the Caldbeck Commons.

Any change to the Permit System will have to be approved by the Committee of the National Park Authority, and will require the consent of English Nature under the CROW Act. Some sites will require authorisation from English Heritage e.g. Carrock Mine. English Heritage are not necessarily opposed to collecting, so long as it does not upset the historical integrity of a site. A draft map had been prepared showing green, amber and red zones, and new application forms had also been drafted for green and amber.

The basis for Amber applications would be for some “research” requirement, Green zones would be relatively easy to gain permission for.

Each site covered by the GCR reviews was briefly reviewed in turn:-

Burdell Gill – it is considered that collecting here is “almost to be encouraged” – but please tell someone what you find !

Carrock Mine and Brandy Gill – difficult area because of Scheduled status.

Dry Gill – no comments.

Red Gill – a site with very strong archaeological interest due to Elizabethan workings. There had been unauthorised mine exploration activities.

Roughtongill – a lot of mining interest, but the question is what is recognisable on the ground. Within the Amber area there could be flexibility in the types of permit issued e.g. for an educational visit, but the key issue is that there should be clearly defined areas capable of recognition in the field / on the ground.

Wet Swine Gill – no archaeological interest but significant mineralogical interest. It is probably not the finest example of an antimony vein in the Lake District – Brian Young offered to provide some amendments to the write-up, and also to contribute some items to the reference list.

A **Code of Conduct** has been drawn up, and in general the collector representatives were happy with the style and content of the document. There were however a number of points for discussion. Briefly, these included – digging depth, awareness of potential damage to artefacts in spoil tips, notification of sites to be visited, accuracy of recording locations – agreed that six figure grid reference is an absolute minimum, and preferably 8 figures, specimen ownership (intended to prevent commercial collecting), recording of finds and notification, applications / permits to apply for a calendar year.

Proposed Colour Zoning (This what the LDNPA hope to implement but it requires ratification by the Park Committee).

Green Zone applications will not require a referee, or specific reason for collecting beyond what's where, and applications will probably be accepted at any time year. There is no requirement to formally report, but people will be asked to write in and let the LDNPA know what they think they have found.

Amber Zone applications will require a “reason for collecting” rather than a “research requirement”, school groups might be offered a local collector a guide / escort, guidance notes will be prepared, timetable / dates for visits will be approximate and can be “firmed-up” nearer the time of the visit. Amber permits will be granted for only one site at a time. The requirement for a referee, who should have some relevant academic standing remains, and instead of a requirement for “analysis, storage and publication” it is proposed simply to use “identification and storage”. (Areas in this category are principally the Dale Beck Valley, Dry Gill, Brandy Gill and Carrock Mine).

Red Zone areas are envisaged as “no collecting”, but potentially, exceptional permission may be granted for collecting in Red Zones. Any such digs may require joint archaeological and geological representation. Further discussions are planned between English Nature and LDNPA to clarify the management of Red Zone areas. (Areas in this category are principally Red Gill, Silver Gill, and Roughtongill, where there are 16th Century workings.)

With regard to signs / information boards it is hoped to include the logos of some societies as endorsement / support for the scheme. Those present were very much in support of this proposal.

The appearance of bogus signs continues to be a problem and the LDNPA are studying the situation closely. The LDNPA would be very pleased to hear from anyone able to provide information on the people responsible for these signs.

The LDNPA have now purchased a set of 1:10,000 geological maps of the Caldbeck area and these are available for public inspection at the Blencathra Centre. (They cost £75 per sheet, and cannot be copied !).

Brian Young on behalf of BGS asked if people thought there would be demand for a 1:25,000 Geological Special Sheet covering the Caldbeck – those present thought this would be an excellent idea.

It was suggested that possibly next year a public workshop might be held in September to allow the collecting community to show what they had been up to.

Conclusion

This was an overwhelmingly positive meeting and bodes well for the future. There will be opportunities for collectors to cooperate with and support the LDNPA in its endeavours and we must all do whatever we can to further this process of collaboration and development.

Editor: Mike Leppington has written to say that if any members do apply for a limited application he will, if not baby-sitting, be pleased to accompany them on their visit and that if he is not able to accompany them he will still be pleased to see them in the evening if they can make it to Cockermouth. Mike says that he believes he has the definitive micromount collection from that area.

WEB WATCH

Roy Starkey

I am sure that most members are considerably more computer literate than the Chairman, but I thought some of you might be interested to learn of a few interesting and worth while Sites I have come across in the past few months.

A good place to start if you are planning a field trip in the mountains of the UK is the updated Metcheck pages:-

<http://www.metcheck.com/>

If you go to the “jump to” tab and select “mountain” you get a comprehensive list of UK mountain areas e.g. Northern Snowdonia, and you can choose from various locations within that area and get up to the minute data at any altitude of your choice – amazing for a free service. There are lots of weather services on the Web, but this is one of the best I have come across.

Another “dodge” I have started using is to hunt down useful Webcams – e.g. in the Lakes or North Wales, Scotland. Here, you can actually see in real time (during daylight hours obviously) what the weather is doing in your chosen location – really handy if you are planning on going dump collecting on the surface and there are three feet of snow on the mountainside!

Try:-

Snowdon - <http://www.4wales.com/>

Cairngorms - <http://www.cairngormmountain.com/webcams.htm>

Fair Isle - <http://www.northisles-weather.co.uk/>

Ben Nevis - <http://www.lochaberinternet.co.uk/webcams/northface.asp>

Borrowdale - <http://www.thelangstrath.com/webcam.htm>

Skiddaw and Keswick - http://www.dokeswick.com/webcams/webcam_fishers.htm

If you are planning a trip to Scotland, this Site can help you research land ownership:-

<http://www.whoownsscotland.org.uk/about.htm>

The BGS Web Site <http://www.bgs.ac.uk/> gives access to a huge resource of information, and the Minerals Home Page <http://www.bgs.ac.uk/mineralsuk/home.html> has a host of interesting and useful information and links.

You can also get a lot of interesting stuff as free downloads – for example:-

Mineral Planning Factsheets

Kaolin (1.3Mb)

Ball clay (1.3Mb)

Fuller's earth (1.1Mb)

Gypsum (1.2Mb)

Salt (1.1Mb)

Potash (1.1Mb)

Industrial limestone (1.6Mb)

Industrial dolomite (1Mb)

Cement raw materials (2Mb)

Silica sand (1.6Mb)

Fluorspar (2.2Mb)

Barytes (760Kb)

Calcite (792Kb)

Miscellaneous minerals (836Kb)

Commodity Profiles:

Platinum Group Elements (99Kb)

Magnesium (119Kb)

Zinc (190Kb)

Coal (1.2Mb) NEW

Fluorspar (1.7Mb) NEW

Barytes (1.2Mb) NEW

United Kingdom Minerals Yearbook 2003 Contents Minerals in Britain — Past Production, Future Potential

Baryte (410Kb)

Lead and Zinc (503Kb)

Nickel and Platinum (421Kb)

Copper (511Kb)

Gold (1Mb)
Gemstones (520Kb)

Exploration for Metalliferous and Related Minerals in Britain: A Guide
Download (4.8Mb)

A particularly excellent portion of the BGS resource is the National Photographic Archive of geological photographs – you can find this at -

<http://www.bgs.ac.uk/scripts/photoarchive/check.cfm>

The Earth Lab facility at the Natural History Museum in London is now accessible on line – whilst perhaps a bit limited for our membership it is a laudable effort and illustrates what can be done “on-line” to take mineralogy to the masses -

<http://www.nhm.ac.uk/museum/earthlab/indexdatasite.html>

The Edinburgh Geological Society has a page dedicated to Matthew Forster Heddle -

http://www.edinburghgeolsoc.org/z_39_02.html

Perhaps one of the most impressive geographic information sites is MAGIC – a governmental resource which is so vast you will marvel at the scale and breadth of the data it gives access to – including SSSI’s - <http://www.magic.gov.uk/>

The following text is reproduced from the Project Summary page – “MAGIC is the first web-based interactive map to bring together information on key environmental schemes and designations in one place. MAGIC is a partnership project involving seven government organisations who have responsibilities for rural policy-making and management, and although it has been designed to meet the needs of the partner organisations, the facility is available to anyone over the Internet.

The MAGIC partners are:

- a.. DEFRA (Department for Environment, Food and Rural Affairs)
- b.. Countryside Agency
- c.. English Heritage
- d.. English Nature
- e.. Environment Agency
- f.. Forestry Commission
- g.. ODPM (Office of the Deputy Prime Minister)

MAGIC makes use of standard GIS tools to allow people to view and query the available data. Users do not require specialist software and can access maps using a standard web browser. MAGIC also provides links to other sources in order to make best use of the wide range of information available on different websites and Internet portals. This varies from simple hotlinks to web pages containing supporting information to more complex searches between different websites or applications, where data searches can be sent from one website to another. Some links have already been established, but MAGIC continues to explore the possibilities of new links with other organisations and facilities. Summary data is also made available to the public via the Countryside Information System. “

If you have come across a really good/useful web site why not share it with the membership – just e-mail Mike with the link and he will do the rest!

FROM THE CHAIRMAN
Roy Starkey

It is that time of year again where we all ponder on what we did not get done last year, and how we are really going to “do it” in the coming months. Typically these thoughts range from sites we did not quite manage to get to, or specimens we meant to get checked out but did not, to the cataloguing backlog which could be cleared...if only we could get straight run at it, and so on. More likely, you are sitting in your work room gazing blankly at the wall and trying to summon up some motivation to get on with it. Well, now is an excellent time to have a clear out, pass on some spare material to friends and colleagues and tidy up the work bench. Those bits which might come in useful one day should either be curated or consigned to the scrap bin, grab yourself an Ordnance Survey map and start planning some definite days out for when the brighter days come.

As many of you will know I have a strong interest in the literature of mineralogy, and one of my interesting old books is “Journal of a tour through North Wales and part of Shropshire with Observations in Mineralogy, and Other Branches of Natural History” by Arthur Aikin, published in 1797. In his Preface, Aikin writes “The tour, an account of which is now presented to the public, was made during the summer of the year 1796, partly for amusement, but principally as a supplement to the mineralogical studies of the author. From the perusal of books, and the examination of cabinet specimens, I wished to proceed to the investigation not of minute detached fragments, but of masses of rock in their native beds; to observe with my own eyes the position and extent of the several strata, the order observed by nature in their arrangement, and the gradual or more abrupt transitions of one species of rock into another. To see the whole process, also, of mining, and manufacturing was one of my chief agenda..... He goes on to say that with regard to mineralogy.... Mineralogy being one of the chief objects of this tour, it was necessary to perform it on foot; and from experience of its advantages over any other mode of traveling in this mountainous country, I would warmly recommend it to all whose strength will allow them to make use of it. On foot a man feels perfectly at ease and independent; he may deviate from the road to climb any mountain, or descend any torrent that attracts his notice; whereas on horseback in many cases this is impossible, and several of the most striking scenes can only be visited on foot.

So, the message is clear – leave your horses at home and get out there in the Field and see what you can find!

I have made clear my desire to stand down from the position of Chairman at the next AGM, and feel strongly that it is in the best interests of the Society that I should do so. The BMS has a wealth of talent amongst its members, and a huge diversity of interests and knowledge. I have now been Chairman (second time around) – for five years, and it is not healthy for the Society to stagnate. I hope that we can move forward in a positive manner, with a new Chairman, and would really like to achieve this via a willing volunteer who would like to take the helm and steer our path for the next few years. If anyone would like to discuss the role, do please give me a call – I look forward to hearing from you. Have a great 2005!

NOTES ON DIGITAL PHOTOGRAPHY THROUGH THE MICROSCOPE

David Green

To get the best out of your microscope with a digital camera, it is important you understand how it works and what its limitations are. The two most important quantities as far as photography is concerned are the resolution and depth of field.

RESOLUTION

The capacity of a microscope to produce an image of the fine structural details present on a specimen is governed by a parameter known as its resolving power. This quantity which is typically measured in micrometres (μm) determines the smallest details that the instrument can see. The resolving power of any microscope is ultimately determined by the wave nature of light, through the phenomenon of diffraction. It is also influenced by the microscope's lens design via a quantity known as the numerical aperture.

A simple equation, $R = 0.6\lambda/\text{NA}$, is used to calculate the resolving power. In this expression, the wavelength of light, λ , is normally taken to be $0.55 \mu\text{m}$. The numerical aperture, NA, is a geometrical quantity which measures the angle over which the microscope lens system can accept light. Its value depends on the design of the microscope objective. The numerical aperture can vary up to a theoretical maximum of value 1. The higher the value, the better the resolving power. For a typical stereomicroscope the maximum numerical aperture is likely to be around 0.08 and the maximum resolving power around $4 \mu\text{m}$.

The discussion of resolution in stereomicroscopes is further complicated since the numerical aperture and hence the resolving power of a microscope which has a zoom magnification changer (almost all microscopes on the market today) varies with the zoom position which is set. It also varies depending on the particular objective which is in use and any supplementary lenses that are present. To give an example, the Zeiss SV 8, a typical high quality modern instrument with a zoom ratio of 8, has a resolving power of $12.5 \mu\text{m}$ at its lowest zoom position, which increases to $4 \mu\text{m}$ at its highest zoom position. These values are typical of other good quality standard instruments made by manufacturers such as Leitz, Nikon and Meiji.

[It may be worth mentioning here that the eyepieces used on a stereomicroscope have no effect on the resolution, for most of us the high magnification eyepieces sold by microscope manufacturers are worse than useless. For a microscope with a $4 \mu\text{m}$ resolution at its highest zoom position it is only necessary to magnify the image by 37.5x so that $4 \mu\text{m}$ looks to be $150 \mu\text{m}$ across in the image. $150 \mu\text{m}$ is about the resolution of the average human eye, any further magnification of the image is of no value].

DEPTH OF FIELD

The depth of field is the perpendicular distance between the nearest part of the object that is in acceptably sharp focus and the furthest part. Anyone who has used a stereomicroscope to photograph mineral specimens will be aware that the depth of field perceived by the observer is larger than that which is recorded on film. For the would be photographer, this can be very disappointing. The equation used to calculate the photographic depth of field is $D = 1/[1.5(\text{NA})^2]$, where D is the depth of field in micrometres and NA is the numerical aperture. This can easily be rearranged to produce an equation for the depth of field as a function of resolving power: $D = 6R^2$. For a typical zoom stereomicroscope this equation means that there is a rapid decrease in the depth of field with increasing magnification.

AN EXAMPLE

What does this mean? Consider someone using a Zeiss Stemi microscope (4 μm resolution at maximum magnification; 12.5 μm resolution at minimum magnification) and a Nikon Coolpix Digital camera (2300 x 1700 pixel sensor). The resolution of the microscope at the highest zoom position is 4 μm . If, being of a generous disposition, we use 2 x 2 pixels to record each 4 μm x 4 μm area on the specimen, the minimum area that can usefully be photographed is 3.4 x 4.6 mm. At the lowest zoom position, the resolution is 12.5 μm so the minimum area that can usefully be photographed is about 10 x 14 mm. Intermediate zoom positions will have intermediate minimum areas for photography. The values for the Stemi are typical of the instruments used by most BMS members.

Now look at the depth of field. At the highest zoom position, with a 4 μm resolution it is $D = 6 \times 4 \times 4 = 96 \mu\text{m}$. At the lowest zoom position it is $D = 6 \times 12.5 \times 12.5 = 937.5 \mu\text{m}$ or about 1 mm. This means it is impossible to get a decent photo of a specimen deeper than 0.1 mm at the highest zoom position and 1 mm at the lowest zoom position.

The depth of field can be increased enormously by introducing a pinhole into a microscope system. However, this improvement in depth of field comes at a high price: the resolution is impaired and the small details on a specimen become blurred and finally invisible. This leaves the would-be photographer with the frustrating problem of trading resolution for depth of field when photographing three dimensional crystalline material at high magnification.

There is really no way around the resolution problem. What it means is that the values for the minimum areas to be photographed given above, which are typical for most microscopes, should not be exceeded. Many of us are trying to take pictures of far too small an area. As a practical guide, for those of us with Coolpix cameras, the camera zoom should be set as far towards wide angle as is practical without introducing distortion.

There is, however a way around the depth of field problem. The specimen is set up under the microscope with the camera properly adjusted. Beginning with the uppermost crystals in focus the photographer steps down through the specimen producing a stack of digital photos each with part of the specimen in focus. These are combined using image processing software to produce the final image. This technique will be the subject of a forthcoming article in the *UK Journal of Mines and Minerals*.

Finally, for anyone interested in getting to grips with the detail of the way their microscope works, Muchel (1984) provides an excellent discussion.

REFERENCE

Muchel, F.L. (1984) Essential optical features of stereomicroscopes demonstrated by a new instrument, the Zeiss SV 8. *Proceedings of the Royal Microscopical Society* **19**, 89-97.

SYMPOSIUM 2005

The BMS Symposium 2005 will be held at the University of Leicester over the weekend of 24-25th September. Further details will be published in the next Newsletter.

If you have any queries relating to this event or have ideas you would like to contribute, please contact either Martin Gale or Greg Towning.

FOR SALE

Dana's System of Mineralogy 7th (1962) Silica minerals. Second hand copy. Offers ~£50 - nearest offer.

Please ring John Betterton on 01344 771477 after 7pm.

BMS FIELD MEETING WEEKEND 30 APRIL – 2 MAY 2005

It is proposed to organise a Field Meeting to Mid-Wales / North Wales over the May Day Bank Holiday weekend, subject to there being sufficient interest, and obtaining the necessary permissions for access.

We will probably have to restrict numbers to 20 – 30, but will review this in the light of the level of response. The objective would be to try and re-establish the format which we enjoyed some years ago, with a base for the weekend, a communal social / pub evening on the Saturday and Sunday and a selection of field venues, through which we would aim to rotate the party in groups through the weekend.

If you are interested in participating, please get in touch with Roy Starkey immediately, preferably registering your interest by email.

BMS MEMBERSHIP CARD

Martin Gale

Some members have been having problems getting permission to gain access to certain sites. Specifically, they have needed to prove that they and others in their group were from the BMS and that they had adequate insurance cover.

After discussion, it was decided to design a card. The problem with any such card is how the landowner would know that the card belonged to the person in front of him. It was also felt to be a problem getting out so many cards - most to members who would probably never use them.

The proposal is that any member needing a card should apply to me with a passport type or a digital photograph of themselves and I will make a laminated card for them. It was also decided to charge a nominal fee for the card. The card would only be valid for one calendar year and the fee would be charged annually.

The card must be used only when the member is on an official BMS field trip organised at branch or society level, by a designated field trip leader. Any proposed BMS Field trip would need to be published/discussed at least at branch level. All field trips would have to be cleared with Shirley Adrian for insurance purposes. The card would not give any member the right to use the card to gain access to any site without the permission of the landowner. Any member mis-using the card would be liable to be expelled from the society.

Enclosed with this newsletter is an application form and members are invited to send applications to me if they need a card.

Draft card format:



(The actual card will differ slightly, in that it will have a photo of the member.)

FROM THE BRANCHES

Devon and Cornwall Group

The following meeting dates have been booked for 2005:

12th March
11th June
17th September
26th November

Meetings are held in the Long room at Liskeard Public Rooms, 3 West Street, Liskeard and start around 1:30pm; we aim to finish at about 5:00pm. A charge of £1.00 per person is made to cover the cost of room hire and refreshments.

MIDLANDS BRANCH MEETINGS 2005
Maria Justamond

Sunday 10th April: “Unknowns” (I’m sure everyone has plenty of these!!)

Sunday 16th October: “Somerset minerals” (Mendips / Clevedon Beach etc...)

Sunday 4th December: “Leadhills & Wanlockhead”

Meetings are held at: St Ninian’s Church Hall, Caldwell Grove, Solihull - from 2.00 to 4.30pm

For further info, members can contact me: Maria Justamond – tel: 01939 251474

Editor’s note to Branch secretaries:

Why not let me put details of YOUR branch programme in the newsletter and, after meetings, maybe a “What was on the tables” style report?

EDITORIAL

As members will note, this edition of *your* newsletter is not as bulky as I would wish – I am grateful to all who rallied around and produced contributions, some at short notice. THANK YOU! There are still one or two items in the pipeline, I am led to believe, but there is a tight deadline on this issue in order to give plenty of time for Roy to organize the proposed Field Meeting which, I am sure, will be well attended. So, to those with articles in preparation, please do let me have them for the next issue as soon as they are ready!

What you are missing in bulk with this newsletter, you are getting several times over with the list of members and the directory which Mick has prepared. Even Mick’s best efforts cannot conjure up entries in the Directory so that is why there are some names without any introductory notes. If your name is one of them, please let Mick have a suitable paragraph modeled on the lines of the other entries so that he is well prepared for the next issue.

I used the e-mail addresses from the list of members to send out an appeal for articles for issue 69. About a dozen or so were bounced, mostly because the addresses were out of date. Please check your full entry in the address list and let Pearl have any corrections. If those of you who are “on-line” prefer to e-mail me, I will get the message to Pearl.

MEMBERSHIP NEWS

PLEASE TAKE NOTE AND AMEND YOUR RECORDS ACCORDINGLY:

Changes of address, telephone or e-mail details:

Member	New or corrected details.
David Eden	7 Reynolds Street, Latchford, Warrington, Tel: 01925 639300
William Ford	Courtfield Lodge, E8, 81a Marians Drive, Ormskirk, L39 1LG
Mike Sweeney	Sonas, Kilgonbinet, Nr Dungarvan, Co Waterford, Ireland

New members

John and Jill Burgess	The Old School, 168 North Cray Road, Sidcup, Kent. DA14 5EL	020 8309 0367
Robert Reed	510 West Dyke Road, Redcar, Cleveland, TS10 4QL	01642 502498
Andy Thompson	19 Groveside, East Rudham, Kings Lynne, Norfolk, PE31 8RL	
Ulrich Wagner and Sigrid Teige	An der Sabdgrube 102, 46244 Bottrop – Kirchellen, Germany	0049 2045 411222 wagnerul@gmx.de

NEWSLETTER EDITOR

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The deadline for articles for Newsletter 70 will be 1st June 2005. Please let me have contributions as soon as possible. Articles or reports on PC disc are welcome - preferably saved in RTF - rich text format. Articles sent by E-mail can either be "attached" or be part of the body of the E-mail message. Clearly *printed* documents are acceptable and can be scanned and read into the PC. Hand-written items should be as clear as possible, please, paying particular attention to the spelling of site and mineral names.