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## Microscope Slide Mountants, 2nd May 1996 Natural History Museum, London

This one-day meeting, organised by the staff of the Entomology Department of the Natural History Museum, London, was one in their series with the overall title 'Collection Views'. The sponsors were the Museum, who provided the venue and facilities, and Merck who provided the refreshments. The meeting attracted a wide range of disciplines, including staff from the Institute of Archaeology, and museum professionals from as far away as Bolton.

One of the organisers, Paul Brown, gave two talks, one of which, was the opener for the day. He explained that he had no formal training in biochemistry or histology and preservation/conservation when he became custodian of the largest discrete microscope slide collection (of aphids) in the Museum. This collection forms a solid 12 cubic metres of glass on the top (!) floor of the Entomology building. It also showed itself to be the biggest conservation problem for the department. when Paul conducted a Museum-wide survey of microscope holding as part of his master's degree in Museum Studies. He found that the most widely-used mountants throughout the Museum were Canada Balsam and Euparal. These products have good track records, having been used from the 1830's and 1940's respectively. In his own area crystallisation and blackening of Berlese gum chloral were major problems and many slides have been re-mounted in Canada Balsam. However, Paul's findings suggest that there was no perfect mountant on the market and that proper preparation and ringing would ensure better long-term results. He also reminded us that, when making or re-mounting slides, we must write the mountant used and date of preparation on the label.

Mary Spencer-Jones (NHM) asked us to ask ourselves why we were making the slides and to fit the mountant to the job. A batch of slides for teaching purposes could be mounted in a product designed for a short life span whilst Museum collections need to remain in optimum condition indefinitely. She urged the use of Canada Balsam ringed with shellac and a note of the technique used written on the label. One tip for removing cover-slips on slides that need repairing is to flick them off after deep-freezing. She also advocated the use of wet/jelly mounts for cavity/deep-cell preparation of small delicate specimens.

Chris Jones (NHM) showed the (mainly) life sciences audience something very different - the techniques used for mounting thin sections of minerals so that they can be examined in cross-polarised light to assist in their identification and classification. Small fossils, resin-mounted, produced very beautiful images when viewed microscopically with polarisers both above and below the subject. In the past, with the larger range of mountants used, all presented some problems but, now, many of these have been solved with the advent of U.V. cure resins and epoxy resins. One that is used was originally designed to bond the layers of laminated windscreens.

The workshops too were of a high standard but unfortunately were not organised in Peter York (NHM) showed the equipment and techniques used for all aspects of photomicrography - and the resulting photographs. He uses video, cine, 35mm, plate and has set up a time-lapse system that he has set up, controlled by computer. More recent advances such as laser confocal scanning, magnifying up to 30 000 times, were explained, but he reminded us that optics may still be better in equipment that is 100 years old!

Simon Moore (Hampshire Museums Service) described the restoration of the Quekett slide collection at the Royal College of Surgeons. These 150-year old slides were of anatomical and plant material mounted in Canada Balsam and as glass cells of fluid. About 10% of the collection was cleaned, re-mounted and the labels touched-up over the period allocated; many slides presented new challenges so that the method for dealing with the problems evolved during the course of the work. An account of the techniques used was published in *Microscopy*, vol.33: 489-494, 1979.

Around the room were displays by Bigneat (ductless fume hoods), Merck (mountants and accessories and Zeiss (microscopes) as well as an explanation of the method used for preparing and mounting diatoms by Karen Webb (NHM) and posters detailing some of the work of staff in the NHM Entomology department.

The day ended with a lively general discussion, which included comments on the pros and cons of Euparal and slide storage - horizontal versus vertical. It was a well-organised and useful meeting and the organisers and sponsors are to be congratulated. May this series of one-day meetings on specialist topics continue and develop.

Jenny Moore, October 1996.

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## The SPNHC Conference, 1996 Academy of Natural Sciences, Philadelphia

This year's SPNHC (Society for the Preservation of Natural History Collections) conference was held at the Academy of Natural Sciences in Philadelphia, USA. The conference had a central theme based on 'Historic Natural History Collections', and a workshop on the 'Valuation and Insurance of Natural History Collections'. Fewer Brits made it to this year's conference than last year's at Toronto, probably reflecting on both tighter budgets and the Cambridge WCCR to be held in August.

The talks occurred over two days and were then followed by the workshop. The whole event was surrounded with organised tours of other institutions and the Academy's collections. A particularly interesting tour was held at the end of the first day's talks. Called the 'Historic Museum Round Robin Tour' it took in two museums. The first was the 'Wagner Free Science Institute' which is set in one of Philadelphia's less salubrious neighbourhoods. The natural history museum part of the Institute is remarkable in that it