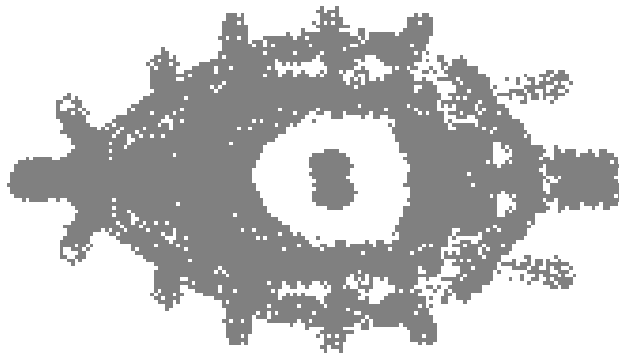


**VISION**

# Bulletin of the Applied Vision Association



Summer meetin round up  
Christmans meeting - annoucneht  
References on vision

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#### **AIM OF THE AVA**

**TO PROMOTE AND ADVANCE THE APPLICATION OF  
RESEARCH WORK IN ALL AREAS RELATED TO VISION**

## *Editorial*

This issue of the Bulletin contains the abstracts of the AVA Christmas meeting at Aston. It also contains a call for papers for the AVA annual meeting which once again will be held at the College of Optometrists in London. Professor Mark Georgeson will be giving the 2002 Geoffrey J. Burton memorial lecture. If you have any comments on the Bulletin of the AVA then do contact me: [mcase@dmu.ac.uk](mailto:mcase@dmu.ac.uk)

**Deadline for copy for the next Bulletin – 18<sup>th</sup> December 2002**

### **AVA and OPO Subscriptions**

Membership for 2002/2003 will be as follows: ordinary members £20, student members £10. It is now possible to pay by direct debit or credit card.

# News

Nicholas de Brunner, the Secretary of the Applied Vision Association will be retiring on 15 November 2002.

Nick has been with for the College of Optometrists for 8 years. He joined the College on 3 October 1994 as Assistant Secretary Academic soon rising to Deputy Secretary of the College, standing in for the College Secretary on many occasions.

His work for the Applied Vision Association included the application by the society for charitable status and he was closely involved in the subsequent process.

Before joining the College of Optometrists Nick was in the Navy for 29 years starting as a Marine Engineer Officer and rising to the rank of Captain.

Nick's main hobby is his Alvis car. Taking pride of place on his mantelpiece in his office at the College is a trophy he won with his wife, from the Optical Motoring Association, for 'Oldest car and crew combined age'!

The AVA will be very sad to see Nick leave. We are grateful for the work he has put into the association and wish him well in his retirement.

Mark Scase and Theresa Murtagh

# *Internet Resources*

## **AVA on the Internet**

The Applied Vision Association has its own world wide web pages at:

*<http://www.dmu.ac.uk/ava/>*

The pages contain details of who is on the committee, contact emails, latest details on forthcoming AVA meetings and links to other vision related pages. There are also archives of abstracts from previous AVA meetings.

There is also an AVA anonymous ftp site at: *<ftp://ftp.psy.dmu.ac.uk>*

This site contains:

- a hyperspectral data set of natural scenes produced by Gavin Brelstaff (see <http://www.crs4.it/~gjb/ftpJOSA.html>).
- David Foster's bootstrap program for estimating the accuracy of a statistical estimate derived from a set of experimental data (see <http://www.op.umist.ac.uk/bootstrap.html>).

If there is anything else you think this archive should contain then let us know.

# Geoffrey J. Burton Memorial Fund

The Geoffrey J Burton fund was established in 1986 with the aim of providing financial assistance to students (postgraduates studying for a higher degree or first-year postdoctoral junior scientists) based in the UK travelling to any conferences or meetings at which they will be presenting a paper or poster. The fund has been renamed to the Vision Scientists Memorial Fund but the AVA will continue to award an annual Geoffrey J. Burton Travel Award from this fund. Donations to the fund can be directed to the AVA secretariat and cheques etc. should be made payable to "The Vision Scientists Memorial Fund".

The maximum award to any one individual is £400.

The closing date for awards will be the last day in February each year and will be for conferences held from 1<sup>st</sup> March to the end of the following February (i.e. there will not be retrospective awards). Applicants do not have to be presenting at an AVA conference.

The next closing date for applications is:

28<sup>th</sup> February 2003

for conferences held between 1<sup>st</sup> March 2002 and 28<sup>th</sup> February 2003.

Applicants must

- Be AVA members
- have attended at least one AVA meeting in the last 18 months

To apply for an award you need to complete an application form which is available from:

The AVA Secretariat,  
College of Optometrists,  
42 Craven Street,  
London,  
WC2N 5NG.

A PDF format version of the application form is available on the AVA web site at:  
<http://www.dmu.ac.uk/ava/>



# Meeting Reports

There have been no AVA organised meetings since the July AVA/BCOVS meeting whose abstracts were printed in the previous issue of the bulletin. Future meetings to look forward to include the Christmas meeting to be held in Aston on Wednesday 18th December and the Annual meeting, to be held at the College of Optometrists on 19th March 2003 (more details on pages 9 and 10). It has however been a busy time for meetings in the last few months, and so I have taken the opportunity to report on some other meetings that have been held recently, concentrating specifically on what has been going on up here in Scotland.

The annual meeting of the Scottish Vision Group was held between the 30th of July and the 1st of August. The Scottish Vision Group is an organisation of researchers in vision, whose purpose is to foster interaction between different laboratories in and around Scotland. Messages can be sent to SVG members by emailing **svg@psy.gla.ac.uk**. Anyone wishing to join the SVG mailing list can do so by emailing Pascal Mammassian on **pascal@psy.gla.ac.uk**.

In the true spirit of devolution, Nick Wade kicked off the meeting with a fascinating account of a power struggle between Scotland and Westminster. Charles Wheatstone reported the design of his stereoscope to the Royal Society in 1838. However, David Brewster, here in St Andrews, supported a claim that a pair of line drawings, originating from Italy in the sixteenth century, were intended for viewing in a stereoscope. This would date the invention of this device two centuries prior to Wheatstone's design, and so fulfil Brewster's wish to deny Wheatstone's claim to be the inventor of the device. The dispute was finally resolved in Wheatstone's favour. The Scots may have invented raincoats, tarmac, television and penicillin, but the English seem safe to claim the stereoscope for their own.

The artistic theme was continued by Helen Ross, who discussed the moon illusion in art. Beyond this, there was a varied program, ranging from the effects of attention on neural encoding (Mike Oram), to a change blindness demonstration provided by Harry Orbach of how this might determine our ability to detect forged Scottish bank notes. One obvious feature of the presentations, even amongst this select gathering, was the variety of stimuli that are currently employed in vision research. There is clearly much still to be gained from the use of "traditional" stimuli such as random dot patterns and Gabor patches, which were put to good use in the studies presented by Martin Lages and David Simmons, for example. Equally evident however was the growing trend toward the use of more complex stimuli, including real world scenes in the presentations of Maxine McCotter and Scott MacDonald. Bernie Tiddeman gave an

accessible outline of how one such stimulus, the human face, can be manipulated using computer graphics techniques. Bernie provided some entertaining examples of how we might use this software to gauge the effects that a change of age, gender or species might have on our appearance. One sobering finding resulting from the use of this software by Tony Little is that we are all narcissists, finding attractive people who look not unlike ourselves.

The SVG meeting was held in the beautiful location of the Burn, an old manse house dedicated to hosting small academic get togethers of this type. One of my enduring memories of the meeting was an early morning stroll in the magnificent grounds of the Burn, overlooked by Mount Keen, and accompanied by the enchanting concertina playing of Helen Ross. It can be difficult to miss the joys of Waterloo station and the services of South West Trains sometimes.

The big event in Scotland over the summer was of course the twenty-fifth European Conference on Visual Perception, held in Glasgow. This again featured the musical talents of Helen Ross, as a reminder that, among his myriad contributions, Charles Wheatstone invented the concertina. The academic program of this year's ECVP was as varied and inspiring as ever. One presentation that particularly sticks in my mind is the "Rorschach inkblots for psychophysicists" demonstrations of Frederic Gosselin and Philippe Schyns. In these experiments, observers were presented with 20 000 samples of visual noise, and told to detect a letter S, which was never presented. Using a reverse correlation technique, they were able to determine the appearance (including the typeface!) of each individual's representation of an S. Not quite the measure of emotional and intellectual functioning and integration expected by psychiatrists on the basis of 10 stimulus presentations, but then psychophysicists have always had much humbler ambitions.

I will not attempt to discuss the academic program here, save to let those of you who could not attend know that the abstracts of the meeting are available online from the Perception website ([www.perceptionweb.com](http://www.perceptionweb.com)). Pascal Mamassian, David Simmons and the rest of the organisers this year put a huge effort into ensuring that the whole of the conference was much greater than the sum of these many excellent parts. This included the inspired idea of providing a bulletin board to allow discussion of the various symposia prior to the event itself. This had the effect that people were fully engaged with the conference by the time it kicked off, ensuring plenty of lively debate in the opening symposium evaluating Marr's impact on vision, twenty years after the publication of his book. Other innovations included *Presenting Perception*, a workshop for hands-on perception exhibits in museums, held in the Glasgow Science Centre; art exhibitions at the conference itself and at the Lighthouse art gallery, and a visual Olympics where delegates could pit their visual search ability against one another. The icing on the cake was that the Glasgow weather did not live up to its notorious reputation, making the conference umbrellas a redundant precaution.

Continuing the European theme, I would like to conclude my roundup of activities in Scotland by mentioning a British Psychological Society sponsored meeting organised by Martin Fisher at the University of Dundee. This meeting drew an audience from the breadth of the UK, from Aberdeen to Plymouth, as well as from across the rest of Europe, including Lille, Berlin and (of course) Maastricht. This was the first of a series of workshops on Perception and Action, exploring links between perceptual and response-related cognitive processes. Again, the abstracts of the presentations are available online ([www.dundee.ac.uk/psychology/info/bpsworkshop](http://www.dundee.ac.uk/psychology/info/bpsworkshop)), so I will not give full details here. However, one talk in particular, given by Yann Coello, may be of particular interest to members of the AVA, due to its direct applied value. With particular reference to video-controlled surgery, Yan explored the issues of spatial frames of reference when attempting to control action with visual feedback provided by a computer monitor. What was particularly striking from the video clips that were presented was the gulf between the painstaking attempts of novices and the effortless performance of the experienced surgeons. Apparently, the expert had learned the ability to select an appropriate spatial reference frame, and great plasticity in linking video feedback (coming from cameras viewing from various, changing locations) to their motor control.

A follow up meeting will be held in Plymouth, provisionally on the 4th July 2003; contact Rob Ellis ([R.Ellis@plymouth.ac.uk](mailto:R.Ellis@plymouth.ac.uk)) for more details.

There have been many more meetings across the UK in recent months, of course, but I thought it might be useful to give a snapshot of what has been happening of late in my immediate neighbourhood. As ever, one of the aims of the Bulletin will be to keep everyone informed of forthcoming meetings (both AVA and non-AVA organised). If you have a meeting coming up that you would like publicised, let us know. See you at Aston!

Paul Hibbard

# Future Meetings

## AVA Christmas Meeting:

**“Human vision – when it works and when it fails”**

Wednesday 18<sup>th</sup> December, 2002

Vision Sciences building, Aston University

### *Invited talks by:*

Pete Bex (University College London)

John Harris (University of Reading)

David Rose (University of Surrey)

Attendees **should** pay in advance.

Payment will be accepted on the door (no credit cards). We would be most grateful if you could give advance warning of your intention to attend.

Information on how to get to Aston University can be found at: [www.aston.ac.uk/contact/](http://www.aston.ac.uk/contact/)

If you intend to arrive drive to the meeting, inform us of your vehicle registration *in advance*. *You are likely to be wheel-clamped if you do not.*

### FEES

	Students	Others
AVA member	£10	£18
Non-member	£15	£28

Payments and notes of intention to attend the meeting should be sent to Vicky Heath ([v.e.heath@aston.ac.uk](mailto:v.e.heath@aston.ac.uk)) at the address below.

Vicky Heath  
Neurosciences Research Institute  
Aston University  
Aston Triangle  
Birmingham  
B4 7ET UK

## Meeting announcements

Recovery of sensory function following damage to the brain, 4th December 2002, City University, London ([www.city.ac.uk/avrc](http://www.city.ac.uk/avrc))

Perception and Action – a BPS supported workshop, 4th July 2003 (provisional date), University of Plymouth. For more details, contact Rob Ellis ([R.Ellis@plymouth.ac.uk](mailto:R.Ellis@plymouth.ac.uk))

10th International Conference on Vision In Vehicles, 6-10 September 2003, Granada, Spain (<http://ibs.derby.ac.uk/viv/viv10.html>)

Ergonomics Society Annual Conference 2003, 15-17 April 2003, Edinburgh Conference Centre, Heriot-Watt University, Edinburgh ([www.ergonomics.org.uk/events/AC2003.htm](http://www.ergonomics.org.uk/events/AC2003.htm))

AVA Annual Meeting, *Vision in a 3D world*,  
March 19th 2003 ([www.dmu.ac.uk/ava](http://www.dmu.ac.uk/ava))

# AVA books for sale

The AVA has a number of new books for sale from conferences that it has organised over the years.

Payment can be by credit cards cheque or postal order in UK pounds to “Applied Vision Association”. Send your payment with the order to:

AVA Secretariat,  
Applied Vision Association,  
College of Optometrists,  
42 Craven Street,  
London WC2N 5NG.

## Books available:

The cost for each book is £15 (including postage in the UK) for AVA members or £20 for non-AVA members. If you are outside the UK then add £5 per book to each of the prices above.

Gale, A.S., Astley, S.M., Dance, D.R. and Cairns, A.Y. (1994) **Digital Mammography**. Elsevier (424 pages).

Gale, A.S., Brown, I.D., Haslegrave, C.M., Kruysse, H.W. and Taylor, S.P. (1993) **Vision in Vehicles IV**. North Holland (355 pages).

Brogan, D., Gale, A. and Carr, K. (1993) **Visual Search 2**. Taylor and Francis (477 pages).

The cost of the Dalton conference book is £43 (including postage in the UK) for AVA members or £48 for non-AVA members. If you are outside the UK then add £5 per book.

Dickinson, C., Murray, I. and Carden, D. (1996) **John Dalton's Colour Vision Legacy**. Taylor and Francis (784 pages).

# Recent Findings

## Pick of the papers:

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## Useful resource:

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# Meetings Calendar

## 2002

December 4 Recovery of sensory function following damage to the brain, City University, London  
([www.city.ac.uk/avrc](http://www.city.ac.uk/avrc))

December 18 AVA Christmas meeting, Aston University, Birmingham ([v.e.heath@aston.ac.uk](mailto:v.e.heath@aston.ac.uk))

## 2003

January 8 Colour Group Vision Meeting  
([www.colour.org.uk](http://www.colour.org.uk))

March 19 AVA 2003, College of Optometrists, London  
([www.dmu.ac.uk/ava](http://www.dmu.ac.uk/ava))

April 15-17 Ergonomics Society Annual Conference, Heriot-Watt University, Edinburgh  
([www.ergonomics.org.uk](http://www.ergonomics.org.uk))

May 4-9 ARVO, FT Lauderdale, USA ([www.arvo.org](http://www.arvo.org))

May 9-14 Vision Sciences, Sarasota, USA ([www.vision-sciences.org](http://www.vision-sciences.org))

July 4 BPS Perception and Action Workshop, Plymouth  
([R.Ellis@plymouth.ac.uk](mailto:R.Ellis@plymouth.ac.uk))

September 6-10 Vision in Vehicles, Granada, Spain  
([ibs.derby.ac.uk/viv/viv10.html](http://ibs.derby.ac.uk/viv/viv10.html))