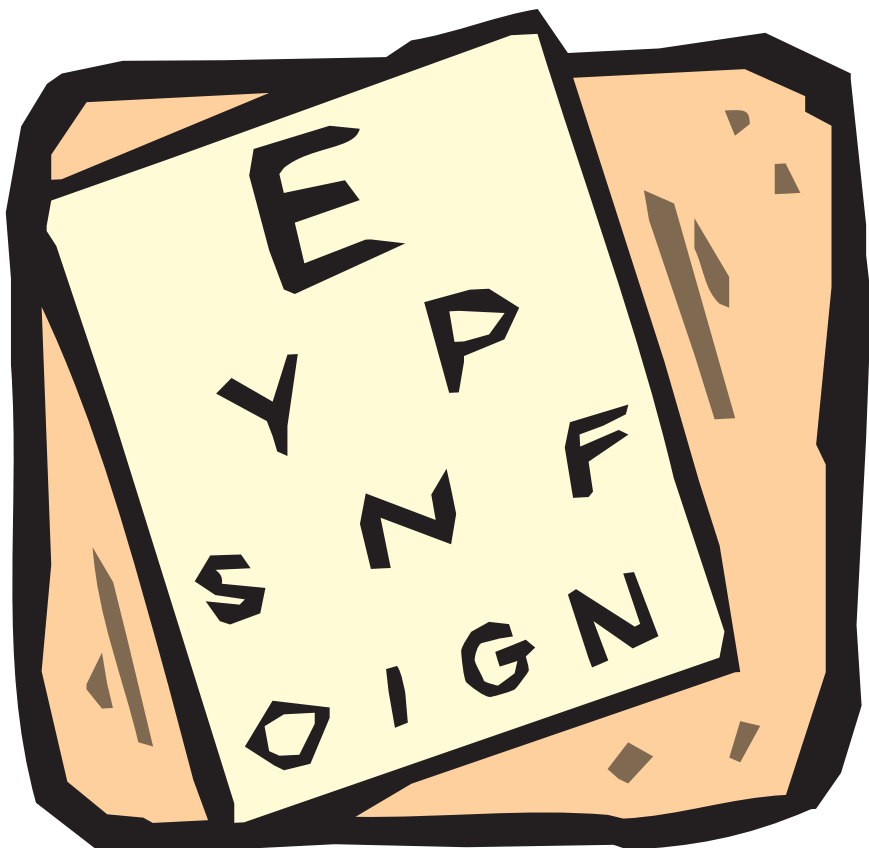


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*Bulletin of the
Applied Vision
Association*



AVA Christmas Meeting: Aston
Meeting Report: Depth Perception
Book review: Mai et al
References on Vision

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APPLIED VISION ASSOCIATION

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



Noticeboard



AVA on the World Wide Web

The Applied Vision Association now 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.

AVA and OPO Subscriptions

Membership for 1997/1998 will be the same price as last year (but is likely to increase in the following year. Those members who pay by standing order for the AVA and Ophthalmic and Physiological Optics please check that the correct amount is being paid to the AVA.

Editorial

Following the success of the AVA Christmas meeting last year at Aston, Tim Meese has agreed to organise another meeting this year. It will be held on 17th December and further details are in the Bulletin. The AVA also announces in this issue the winner of the latest round of Geoffrey Burton travel awards. This time it has been awarded to Nick Scott-Samuel from Royal Holloway. Finally we include a report of the AVA meeting at Surrey University on depth perception that was organised by Mark Bradshaw and Paul Hibbard.

If you have any comments on the Bulletin of the AVA then do contact me:
mscase@dmu.ac.uk

Deadline for copy for the next Bulletin - 12th December 1997

Geoffrey J. Burton Memorial Fund

The fund was established in 1986 with the aim of providing financial assistance to students (in non-established or fixed term posts) based in the UK travelling to any conferences or meetings at which they will be presenting a paper or poster. Donations to the fund can be directed to the AVA secretariat and cheques etc. should be made payable to "The Geoffrey J. Burton Memorial Fund".

The maximum award to any one individual is £200.

Awards can be made for any conference in the calendar year in which the award falls (1998 in this case). You do not have to be presenting at an AVA conference. The awards will be made twice a year.

The next closing dates for applications are:

28th February 1998

31st August 1998

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

The AVA Secretariat,
College of Optometrists,
10 Knaresborough Place,
London,
SW5 0TG.

The award for nominations closing on 31st August 1997 went to:

Nick Scott-Samuel, Royal Holloway

who was awarded £175 for his presentation entitled:

"Motion contrast: a new metric for direct discrimination"

that was presented at the ECVF in Finland in August 1997.

***Applied Vision Association
The Second
Christmas Meeting.***

THE VISUAL BRAIN

Wednesday 17th December
Aston University

INVITED TALKS

Oliver Braddick “Directionality, Asymmetry, and
Infancy”

David Foster “Multiple Orientation-Selective Mech-
anisms for Line-Target Detection”

John Daugman “The Quantized Degrees-of-Freedom in
Images and Visual Codes”

THE MEETING:

Following the success of last year’s Christmas Meeting on ‘Locus Questions in Vision’, The Applied Vision Association (AVA) will be holding a one-day meeting in the Division of Vision Sciences at Aston University on Wednesday 17th December. Abstracts will be refereed and published in “Perception”.

THE COST:

Once again, its cheap! The cost of registration will be *15 Pounds Sterling* (10 pounds for students), and cheques should be made payable to “Applied Vision Association”. Overseas visitors may delay payment for registration until the day of the meeting.

The registration fee will cover: tea/coffee, lunch-time buffet and fruit juice or wine in the early evening.

THE DEPARTMENT:

For information on the Department, the web address is:
<http://www.vs.aston.ac.uk/>

FURTHER DETAILS:

For further information please contact:
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AVA books for sale

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

Payment can be by cheque or postal order in UK pounds (sorry, no credit cards) to "Applied Vision Association". Send your payment with the order to:

AVA Secretariat,
Applied Vision Association,
College of Optometrists,
10 Knaresborough Place,
London SW5 OTG.

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., Freeman, M.H., Haslegrave, C.M., Smith, P. and Taylor, S.P. (1988) **Vision in Vehicles II**. North Holland (420 pages).

Gale, A.S., Brown, I.D., Haslegrave, C.M., Krusysse, 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).

Book Review

Atlas of the Human Brain

Jürgen K. Mai, Joseph Assheuer and George Paxinos

1997 Academic Press, San Diego

ISBN 012465360X £90.00 \$135.00 (hardback, 328pp)

0124653618 £60.00 \$89.95 (paperback, 328pp)

The aim of this book as stated by the authors was to transfer information from classical studies of brain anatomy to the cross-sectional brain *in situ* and to juxtapose this information with magnetic resonance images obtained from the same brain. In addition the authors aim was to provide a detailed myeloarchitectonic atlas of coronal sections of the brain that would be helpful to researchers using immunohistochemical and autoradiographic methods.

The book is divided into two parts. Part 1 is a topographic and topometric atlas and consists of serial sections of MRI-scanned human heads. *In situ* sections of the entire head are also shown together with labelled drawings of these sections. The main advantage of these sections is that no significant deformation of the brain occurred and they allow correlation to bones and blood vessels. The sections are cut at regular intervals and in horizontal, coronal and sagittal planes. MRI scans obtained *in vivo* are placed beside the *in vitro* images and correlations between *in vitro* and *in vivo* are included.

Part 2 of the book is over 150 pages long and contains 69 photographs of myelin-stained coronal sections of the brain. Pairs of pages follow the same format. The left-hand page is taken up with a photograph of the coronal section while the right-hand page is labelled drawing of the same size of that photograph. The brain was cut perpendicular to the intercommissural line and the plates show mainly subcortical structures. However, for sections of the anterior and posterior parts of the brain, the cortex is clearly shown.

I would think that the majority of readers of this review would be vision scientists and not anatomists. The relevance of this book to vision science is that the visual pathways are clearly shown from the optic chiasm,

through the optic tract to the LGN and then to the striate cortex. This book will be of use to vision scientists who are using functional imaging techniques (PET or fMRI) of the visual system and are trying to identify functional areas.

Unfortunately the price of the book (even the paperback version) probably puts it beyond the price range of students. However, I would think this book would be a definite purchase for Departmental and University Libraries. The quality of production and clarity of the book are outstanding and the book would be a valuable reference tool for vision scientists requiring precise anatomical identification of the visual pathway.

Mark Scase

Applied Vision Association Postgraduate Meeting.

***College of Optometrists,
London.***

Due to administration difficulties the AVA Postgraduate meeting due to be held at the College of Optometrists on 5th November 1997 has been postponed until early in 1998.

We will publish exact dates when they have been finalised.

For more information contact the AVA Secretariat on: 0171 373 7765

Applied Vision Association Meeting

4th September 1997

DEPTH PERCEPTION (Physiology and Psychophysics)

Meeting Report

The meeting saw the arrival of 64 delegates to the University of Surrey, Guildford. Interest was attracted from around the globe, with delegates arriving from Canada, the United States, Australia and Japan, in addition to those travelling from around the UK and the rest of Europe. In total, 16 papers and 18 posters were presented. These included keynote talks given by three invited speakers.

The first keynote speech was given by Barbara Gillam, from the University of New South Wales. Professor Gillam presented experiments in which she and collaborators had demonstrated the critical role of both visual references, and the presence of disparity discontinuities in the perception of surfaces presented stereoscopically.

The second keynote speech was given by Brian Rogers from the University of Oxford. Professor Rogers discussed the role of vertical disparities in depth perception. In the final keynote speech, Professor Andrew Parker, from the University of Oxford, addressed the question of how physiological experiments, using single cell recording techniques, may be related to our understanding of depth perception gained from behavioural and psychophysical studies.

The remaining talks and posters spanned a wide range of topics. These included the low level inputs to stereoscopic vision, the presentation of depth information in virtual worlds, and the role of disparity, motion and texture cues in the perception of depth. Other presentations considered some philosophical questions relating to binocular vision, and a possible link between dyslexia and impairments in stereopsis. One topic that

received particular interest was the issue of how estimates of depth are scaled for viewing distance. Presentations addressed the role of vertical disparities in this task, and differences in scaling when depth is defined by disparity or motion in isolation, or by both cues. Another important theme was the manner in which disparity estimates form the basis of the perception of depth, and the critical role played by surface configurations in this task.

The meeting concluded with an evening poster session, when discussion of the day's presentations continued over wine. The general impression was that the meeting had been a great success, both in terms of the high quality of the presentations, and the opportunity for informal discussion provided by the occasion.

Abstracts can be found at:

<http://www.surrey.ac.uk/Psychology/AVA/>

and are to be published in *Perception*.

A special issue of *Perception*, which will include papers presented at the meeting, is scheduled for publication in August 1998.

Paul Hibbard
University of Surrey

Editors note: Many thanks to Mark Bradshaw and Paul Hibbard for organising this very successful meeting.



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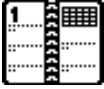
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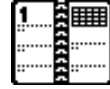
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References supplied (as usual!) by:

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Meetings Calendar



1997

November 19-20 Brain mechanisms of selective perception and action. The Royal Society, London.
<http://www.royalsoc.ac.uk/rs/>

December 17 AVA Christmas meeting at Aston University
Contact: Tim Meese t.s.meese@aston.ac.uk

1998

January 7 Colour Group Vision Meeting
Institute of Ophthalmology
<http://www.city.ac.uk/colourgroup/>

May 10-15 ARVO, Ft Lauderdale, USA
Abstract deadline: 5 December 1997
<http://www.faseb.org/arvo/>

August 24-28 ECVP98, Oxford
Contact: Brian Rogers bjr@psy.ox.ac.uk
<http://users.ox.ac.uk/~bjr/>

1999

August 10-14 23rd Pupil Colloquium, Nottingham
<http://www.mailbase.ac.uk/lists/pupil/files/>

May 9-14 ARVO, Ft Lauderdale, USA
<http://www.faseb.org/arvo/>