

## Citation for the 2005 AIC Deane B. Judd Award

**P. Green-Armytage**

*Department of Design, Curtin University of Technology  
Perth 6000 (AUSTRALIA)*

The AIC Deane B. Judd Award was established in 1975 to honour the memory of Deane B. Judd; it is the highest honour that can be bestowed by the international colour community. The Award recognizes work of international importance in the fields of colour perception, colour measurement, or colour technology. Previous winners have been: In 1975 Dorothy Nickerson; 1977 William David Wright; 1979 Gunter Wyszecki; 1981 Manfred Richter; 1983 David L. MacAdam; 1985 Leo M. Hurvich and Dorothea Jameson; 1987 Robert W.G. Hunt; 1989 Tarow Indow; 1991 Hans Vos and Pieter Walraven; 1993 Yoshinobu Nayatani; 1995 Heinz Terstiege; 1997 Anders Hård, Lars Sivik and Gunnar Tonnquist; 1999 Fred W. Billmeyer Jr.; 2001 Roberto Daniel Lozano; and in 2003 Mitsuo Ikeda. It is now with very great pleasure that I announce the winner of the AIC Deane B. Judd Award for 2005: John Hutchings

### **JOHN HUTCHINGS: WINNER OF THE 2005 AIC DEANE B. JUDD AWARD**

John Hutchings is a particularly fitting recipient of the Award since he represents what is, for me at least, the most precious aspect of the AIC: its role as a meeting place for people from different disciplines. John Hutchings is a physicist, but his work in the food industry has taken him outside the discipline of physics and led him to look at the way that colour works in the wider world, in nature and culture.

John Hutchings is the author of the definitive book *Food Colour and Appearance* and is acknowledged as a leading authority in the field of food science and technology. But he is also recognised as a world authority on colour in folklore and on the role of colour in the natural world. In addition, John Hutchings's involvement in the processing and preservation of food has brought him into contact with those who are concerned with the distribution and marketing of food, including the designers who are responsible for packaging and for the interiors and exteriors of shops, restaurants and pubs.

John Hutchings recognised early on that colour measurement does not tell the whole story and that other aspects of appearance, especially texture, gloss and translucency, play a critical role in determining the acceptability of food. Perhaps his most valuable contribution is his concept of Total Appearance and the way he has elaborated this concept into an information transfer process. Links are made between the physics of a situation, basic perceptions of appearance characteristics such as colour and texture, and what John Hutchings calls 'derived perceptions or visual expectations'. Our expectation that a plate of food will taste good and contribute to our health derives from the total appearance of the food and the environment in which it is presented which, in turn, is determined by the physics of the situation. John Hutchings developed his technique of Appearance Profile Analysis into a tool which can be used to examine these variables in detail and identify the ways in which they are linked.

Total Appearance has two major elements which John Hutchings identifies as 'scene properties and viewer properties'. Scene properties can be pinned down by physics but, for a full understanding of viewer properties, John Hutchings recognised the need to understand the combined influence of our biological and cultural inheritance. This implies wide ranging study and John Hutchings has published his findings about the way that colour vision contributes to our biological survival and to the ways in which we have exploited our colour vision in the social and cultural spheres.

For most of his career John Hutchings worked for Unilever, first as a Research Technician, then as a Production Auditor, and finally as a Research Scientist. He was responsible for teams working on the psychophysics of colour and other aspects of appearance. Materials studied included paints and cosmetics, but most attention was paid to food. In John Hutchings's words; 'These studies required determination of relationships between formulation, production, structure, expert sensory

studies and consumer opinion of colour and appearance as required by different parts of the Unilever business.'

Since his retirement from Unilever John Hutchings has worked as a consultant, writer, lecturer and educator. In 1997 he was the keynote speaker at the biennial conference of the Colour Society of Australia where he was uniquely qualified to address our theme of 'Colour for Life'. A highlight of our conference was the two-part Eating Seminar which John Hutchings conducted. He also presented a lecture on 'The Customer's View of Design' at Curtin University of Technology which was subsequently published by the School of Design in our series of Occasional Papers. His most recent book, *Expectations and the Food Industry*, is addressed to a very wide audience which includes scientists, technologists, architects, designers, marketers and those who work in hospitality as well as their customers. John Hutchings is currently a Visiting Research Fellow at the University of Leeds where he is collaborating with Professor Ronnier Luo.

John Hutchings has been a Fellow of the Institute of Physics since 1985 and a Fellow of the Institute of Food Science and Technology since 1987. He has been a member of the Folklore Society since 1984, serving as Honorary Treasurer between 1986 and 1998. He has been a member of the Colour Group (Great Britain) since 1968, was Honorary Treasurer between 1975 and 1979 and Chairman between 1979 and 1981. He was made an Honorary Member in 2000 and was the Newton Medallist in 2001. He has also been a member of the Inter Society Color Council (USA) since 1984 and was made an Honorary Member of the Grupo Argentino del Color in 2002.

John Hutchings is a longstanding member of the AIC community. He served on the Executive Committee between 1985 and 1989 and has been Honorary Auditor since 1989. He is one of the very few who has attended every AIC Congress since the inaugural Congress in Stockholm in 1969. His contributions are being acknowledged here in Granada in the best way we know. This may be a high point in the career of John Hutchings but we are not satisfied! We want more from him and we are looking forward to welcoming him in Australia at the next AIC Congress in 2009.

## **PUBLICATIONS:**

### **1969**

An objective colour method for the determination of tomato maturity, *J Food Tech* 4 45-49 (with F W Wood, R Young)

Tristimulus colour measurement in the food industry, in *Proc of First International Colour Association (AIC) Congress*, Stockholm, 581-589

### **1977**

The importance of visual appearance of foods to the food processor and the consumer, in *Sensory properties of foods*, eds G G Birch, J G Brennan, K J Parker, London, Applied Science Publishers, 45-57

At the request of the journal editor this paper was reprinted in *J Food Qual* 1 267-278

Colour and translucency as food attributes, in *Proc of Third AIC Congress*, Rensselaer, eds Fred W Billmeyer Jr and Gunter Wyszecki, Bristol, Adam Hilger, 467-470 (with J J Scott)

### **1978**

Psychophysics of colour and appearance in product development, in *Proc of Food Colour and Appearance Symposium*, University of Surrey, Colour Group (GB), 46-55

### **1981**

Translucency specification and its application to a model food system, *Proc of Fourth AIC Congress*, West Berlin, ed Manfred Richter, 2, C4 (with C J Gordon)

Transreflectance properties of lightly tinted ancient glass, *Proc of Fourth AIC Congress*, West Berlin, ed Manfred Richter, 2, Po3, 1981 (with D C W Sanderson)

### **1986**

Colour and appearance in nature, part 1, photosynthetic organisms, *Color Res and Appl* 11 107-111

Colour and appearance in nature, part II, colour and appearance of flowering plants and animals, *Color Res and Appl* 11 112-118

Colour and appearance in nature, part III, colour and appearance of homo sapiens, *Color Res and Appl* 11 119-124

**1987**

The origins and measurement of colour in archaeological glasses, *Glass Technology* 28 99-105 (with D C W Sanderson)

**1988**

The relevance of colour and folklore to the practice of modern architecture, *Proc of the AIC Colour in Environmental Design Symposium*, Winterthur, 28.1-28.5

**1989**

Colour in folklore, superstition and legend, *Proc Sixth AIC Congress*, Buenos Aires, ed Grupo Argentino del Color, 2, 54

**1991**

A survey of the use of colour in folklore - a status report, in eds John Hutchings, Juliette Wood, *Colour and Appearance in Folklore*, London: The Folklore Society 56-60

*Colour and Appearance in Folklore*, London: The Folklore Society (editor with Juliette Wood)

**1993**

Colour specification in archaeology, in *Colour in Archaeology Day School Handbook*, Colour Group (GB), Institute of Archaeology, London

The concept and philosophy of Total Appearance, in *Proc of Seventh AIC Congress*, Budapest, 187-188

International survey on colour in folklore, belief and tradition - a progress report, *Proceedings of Seventh AIC Congress*, Budapest, 263

**1994**

*Food colour and appearance*, Glasgow, Blackie

The concept and philosophy of Total Appearance, *Die Farbe* 40 65-69

**1995**

The continuity of colour, design, art and science - Part 1, the philosophy of the Total Appearance Concept and image measurement, *Color Res and Appl* 20 296-306

The continuity of colour, design, art and science - Part 2, Application of the Total Appearance Concept to image creation, *Color Res and Appl* 20 307-312

Colour measurement, in *Encyclopaedia of Analytical Science*, London, Academic Press, 794-803

**1996**

Colour me beautiful, *World of Food Ingredients*, Jan-Feb 28-29

*Colour in Folklore with particular reference to Japan, Britain and Rice*, London, The Folklore Society (with Munehira Akita, Noriko Yoshida, Geraldine Twilley)

**1997**

Colour in folklore, in *Colour and psychology*, Proc of AIC interim meeting, Göteborg 1996, Stockholm, Scandinavian Colour Institute, 182-186

Color in anthropology and folklore, in *Color for science, art and technology*, ed Kurt Nassau, Amsterdam, Elsevier, 196-208

Living colour - appearance in nature, in *Color for science, art and technology*, ed Kurt Nassau, Amsterdam, Elsevier, 222-246

Folklore and symbolism of green, *Folklore* 108 55-63

Building visual attraction into food products, *World of Ingredients*, Feb 27-28

Purple and privileged, letter to the editor of the *Independent*, published 23<sup>rd</sup> April 1997, 19

Image creation - the role of the designer. Invited lecture to the Symposium Color Design 21 - The Role of Colour in the 21<sup>st</sup> Century, in *Proc of Eighth AIC Congress*, Kyoto, 1, 90-93

Japan and Britain - a comparative colour folklore, in *Proc of the Eighth AIC Congress*, Kyoto, 2, 775-778

The relevance of colour and the Total Appearance concept in food product development, in *Cereals '97, Proceedings of the 47<sup>th</sup> Australian Cereal Chemistry Conference*, Perth, eds A W Tarr, A S Ross, C W Wrigley. Melbourne, Australia: Cereal Chemistry Division, Royal Australian Chemical Institute, 167-171

**1998**

Relevance of colour and the Total Appearance Concept to culinary arts and sciences, in *Proceedings of the International Conference on Culinary Arts and Sciences*, eds J S A Edwards, D Lee-Ross.

Bournemouth, Worshipful Company of Cooks Centre for Culinary Research at Bournemouth University, 199-206

Colour in oral tradition, in *Proc of conference Colour Between Art and Science*, ed Knut Blomstrom, Oslo National College of Arts, 23-31

**1999**

*Food colour and appearance*, 2<sup>nd</sup> edition, Gaithersburg, MD, Aspen

**2000**

The customer's view of design, *Curtin University of Technology, School of Design, Occasional Paper*, May 2000

**2001**

Colour as an everyday symbol, *ISCC News* May-June 8-9

**2002**

Conversations around archaeology and colour science, in eds Tom Lane, John Coles, *Through wet and dry, essays in honour of David Hall*, Lincolnshire Archaeology and Heritage Reports Series Number 5, 96-105

Colour and appearance in food and design, in *ArgenColor 2000 Actas*, eds José Luis Caivano, Rodrigo Hugo Amuchástegui, Buenos Aires, Grupo Argentino del Color, 333-338

Food colour and appearance measurement, specification and communication, can we do better? In *Proc of Ninth AIC Congress*, 2001 Rochester, Robert Chung, Allan Rodrigues editors, Washington, SPIE The International Society for Optical Engineering 674-677 (with Mark Singleton, Keith Plater, Benjamin Dias)

Calibrated colour imaging analysis of food, in *Colour in food, improving quality*, ed D B MacDougall, Cambridge, Woodhead Publishing, 352-366 (with Ronnier Luo, Wei Ji)

Perception of colour, in *Colour in food, improving quality*, ed D B MacDougall, Cambridge, Woodhead Publishing, 9-32

Colour contrasts in advertising – façade colours of food and drink consumption venues, In *Proceedings of Ninth AIC Congress*, 2001 Rochester, Robert Chung, Allan Rodrigues editors, Washington, SPIE The International Society for Optical Engineering 72-75

Expectations, food colorimetry and digital analysis, in VI Congreso Nacional de Color, Seville, ed Área de Nutrición y Bromatología, Universidad de Sevilla, 33-37

Medición, especificación y comunicación del color y la apariencia en alimentos, ¿podemos hacerlo mejor? *Grupo Argentino del Color revista* 5 14/15 7-11 (with Mark Singleton, Keith Plater, Benjamin Dias).

**2003**

*Expectations and the food industry - the impact of color and appearance*, New York, Kluwer/Plenum Publishers published in hard and soft back

Expectations and food appearance – sensory assessment and measurement, *Food Science and Technology* 17 (1) 23-25

**2004**

Colour in folklore and tradition – the principles, *Color Research and Application* 29 57-66

Colour measurement, in *Encyclopaedia of Analytical Science*, 2<sup>nd</sup> edition, London, Academic Press

**2005**

in preparation, papers on the *Ethics and the use of colour* and, with Ronnie Luo, on *Translucency its perception and measurement*.