

The x-change, Tuesday 9 September 2008

Speakers:

- **Maggie Aderin-Pocock**, science and society fellow, PPARC
- **Pete Vukusic**, University of Exeter
- **Matt Field**, University of Liverpool
- **Peter Naish**, Open University
- **Clifford Stott**, University of Liverpool
- **Ray Costello**, historian and genealogist



Host: **Sue Nelson**

The evening began on a high note with a wonderfully enthusiastic preview of Maggie Aderin's BA Isambard Kingdom Brunel Award Lecture. Maggie explained how studying space can help us to understand the Earth and climate change and concluded with a demonstration of the Doppler Effect. When Maggie rotated a hollow plastic tube around her head we observed the semi-tone shift in pitch when the open end of the tube (and source of the sound) moved from the front to the back of her head.

Next up was Pete Vukusic, who wowed us with his colourful specimens of beetles and butterflies. Pete explained that in nature colour is often generated not by pigmentation, but by the intricate structure of external surfaces which reflect light to create the appearance of colour. The audience were impressed by the commercial applications of structural colour, and were quite taken with its use in car paintwork. As Pete pointed out, when asked by a policeman "What colour is your car?" one could legitimately answer "it depends where you're standing"!

The irony was not lost on the audience (many of whom were sipping a well-earned pint after a hard day of science lectures) when Matt Field stood up to discuss the dangers of heavy drinking. Matt explained that heavy drinking was particularly dangerous to youths and adolescents, whose cortex is still developing. It was a sobering thought to realise that heavy drinking in the young could potentially lead to the irreversible damage of brain pathways.

Why do some people believe that they remember an event when it never actually happened? This is the subject of Peter Naish's work, and he outlined his experimental approach to studying the phenomenon. Peter and his colleagues talked to their subjects about an apparent operation the subjects had had as a child. Unbeknown to them, the techniques to perform the surgery did not exist when they were children. After some reflection, many subjects returned to say that they did in fact remember these fake events!

Clifford Stott almost started a riot when he suggested that a change in the approach to policing at football matches might help to reduce hooliganism. This was based on his own work and that of his colleagues, which shows that when people feel that they are being treated unjustly they are more likely to be incited by a violent minority. At football matches, he argued, police have sometimes used indiscriminate force to quell violence, and a more targeted approach would be appropriate. In fact, this approach was applied at Euro 2004 and contributed to the peaceful behaviour of the fans.

Liverpool has a long history of immigrant settlers. Ray Costello spoke passionately in favour of genealogy, and in doing so, provided a contrasting view to that presented by Steve Fuller the previous night. Ray used an old slave phrase to sum up his feelings when he said that if you don't understand your ancestry "you're up the swanny".

Once more we were entertained by the finalists in the *perspectives* competition, who gave slick overviews of their posters. Olga den Besten, Sarah Brown, Alison Graham, Ruby Raheem and Luc Rock had only two minutes to sum up their research in fields such as health education, DNA diagnostics, genome sequencing and fertility. Our host, Sue Nelson, was itching to blow her whistle when the allotted two minutes were up, but was prevented by the near-perfect timing of the *perspectives* finalists!

Angharad Kerr