

Obituary

Tom the European

Tom Troscianko died in his sleep during the night of Tuesday November 15th at the cruelly young age of 58. Thus vision science has been robbed of one of its real characters. Tom's working life began as a lab technician in the British Steel Corporation (1970–1971), analysing data on the effects of friction in steel rolling mills. This was quickly followed by a degree in Physics at the University of Manchester (1971–1974), after which he spent his formative years working for Kodak. This kindled an academic interest in colour vision, so he returned to university life to develop his ideas and complete a PhD under the supervision of Charles Pagham at City University (1975–1978). In 1978 he moved to Bristol as an assistant to Richard Gregory, from whom he may have learned three key rules: never “think within the box”, make science fun, and make science intelligible and relevant to the “man in the street”. One of his gifts was to see beyond the present detail of a project, to ask how new data or ideas helped us understand “seeing” (getting around without bumping into things, finding objects, or choosing the right food) and to ask whether there were practical applications for the research. He had an eclectic and insightful knowledge of wide and diverse areas of vision science; he worked with psychophysicists, robotics engineers, single-neuron neurophysiologists, brain imagers, computer vision and graphics scientists, industrialists, zoologists or animal behaviourists, defence researchers, CCTV managers, and more. He listened carefully to talks on diverse subjects, and was able to see how they might help solve problems from other fields. He was able to introduce scientists from different disciplines so that their projects became greater than the sums of their parts, and he himself contributed to many and varied projects.

In 1985 Tom went to the University of Tübingen Eye Hospital, supported by a Fellowship from the Humboldt Foundation. During this time, his work was mainly on ‘isoluminance’ and its effects on the perception of form and motion. He then returned to the UK, where his time was split between a part-time postdoc position in the Department of Psychology in Bristol and the IBM UK Scientific Centre in Winchester, from where his interests in computational modelling originated. Tom returned to Bristol full-time in 1988 and progressed to a lectureship in the Psychology department in 1991. At the turn of the millennium, life became complicated again when Tom accepted a chair at the University of Essex, receiving within a few weeks an offer from the University of Sussex. His stay in Essex was brief! But by the time Tom had spent two years at Sussex, Bristol had got around to advertising the job that Tom had left. He applied and effectively got his old job back in his beloved city of Bristol, but now at professorial level! He was soon to found the Cognition and Information Technology Research Centre (COGNIT), an embodiment of his own conviction towards an interdisciplinary approach to ‘cognitive neuroscience’, and this grew to become the Bristol Vision Institute of today.

Given the wide range of his interests, it is no surprise that Tom published on a very diverse range of topics, even within the single area of colour vision. He studied: motion in red–green isoluminant patterns; achromatopsia; the statistics of the power spectra in hyperspectral images; the robustness of human and bird colour vision while viewing fruits under different illuminants or under shadows; the perception of colour differences in natural scenes, and how this survives in peripheral vision even when perception of object shape is compromised; whether birds could see camouflaged moths;

whether tsetse flies are attracted to the blueness of shadows. His development of a hyperspectral camera with colleagues at DERA in the mid 1990s could have had more impact, but having to slowly take a sequence of images through thirty-one interference filters severely restricted the subjects to highly static scenes. Newer technology has allowed very, very much quicker acquisition of hyperspectral images.

Tom's approach to vision science was always practical and direct. If he wanted to know about an audience's cinematic experience, he would hire out a cinema and fill it with willing participants provided with appropriate means to report their immersion. If he cared about the perceived speed of cars, he'd go out there and measure it, and ask people how fast they thought they were going. Surrogate Gabor patches were never going to have much allure for Tom.

When Tom moved to Bristol, he became involved with the journal *Perception*, started by Richard Gregory in 1972. Over the years, as Gregory relinquished more of the day-to-day running of the journal, Tom joined the editorial board and became its chief editor. Over a period of more than twenty years it was Tom who provided the continuity on the editorial board of the journal. It was he who orchestrated the wonderful *Perception* dinners held at each year's *European Conference on Visual Perception* for the editorial board, each one held in the finest restaurant that Tom could find in the ECVP host city. Tom was always keen to adopt new technology and was the driving force behind the establishment of *Perception's* new sister journal *i-Perception*. Now in its third year, Tom lived long enough to guide this new 'free to read' journal from its launch to become the success it is now becoming.

For many people, their knowledge of Tom will be as a stalwart of the organisation of the annual meetings of the *European Conference on Visual Perception*. He organised the 1988 meeting in Bristol (a small affair by modern standards). In the folk memory of the ECVP, it might be said (like the 1960s) "if you can remember the Bristol meeting, you were not there!" Tom had a European vision, having been raised in a Polish-speaking family in Switzerland and West Germany, and being sent as a child to a Polish boarding school in England. He arrived in England without English and, in 1966, was distraught when England beat his native West Germany in the football World Cup final. Four years later, the now thoroughly English Troscianko was again distraught when West Germany beat his native England in the World Cup quarter-finals in Mexico. He spoke many languages fluently, and he had many academic friends and colleagues in many European universities, whom he frequently went to visit. It was on such a trip that he died peacefully on the night of November 15th. He wanted to encourage ECVP to flourish everywhere, even in the most difficult places; he wanted ECVP to attract the widest range of scientists. He was keen to spread his enthusiasm for vision science as far as possible, and typically, he offered his expertise to assist the local organisation committees with their planning—crucially, but quietly in the background. This blended with his quest for adventurous travel, and he encouraged ECVP to attend some difficult venues, such as Vilnius in 1991, just after the release of Lithuania from the USSR. More recently, his eye had turned to the *Asia Pacific Conference on Vision*. He saw the world's power base heading in that direction, and recognised the need to help build early foundations there, for vision science and for the journals he had spent his academic life supporting.

Tom was able to do all of the above because, for him, there were no obstacles—just paths to where he wanted to be. This made him a great organiser and a great man to follow; there was just never any chance of bumping into anything! His direct approach to solving problems underlay his innovative ideas for psychophysical investigation: while his co-workers were agonising about the impossibility of solving some problem in the laboratory, Tom's conviction was to go straight to the point. Often this worked, generally to the co-workers' surprise.

Tom became secretary of the UK based *Applied Vision Association* in 2003 at the time of its rebranding to the more simply named "*The AVA*". *The AVA* is now an important conference forum for bringing together the diversity of British vision scientists into friendly and interesting meetings; an occasional theme of these meetings is to bring together groups of scientists who rarely meet but who really ought to gain from knowledge of each other's fields of endeavour. Tom was particularly keen to bring together vision scientists interested in human vision and "zoologists" who study vision or visual behaviours in non-human animals, and to encourage the discussion of seeing in practical situations. Following Tom's interest in wide access and the encouragement of young scientists, *The AVA* funds travel bursaries and prizes for young scientists. This type of support is likely to continue for some time owing to Tom's enormously generous gift of £20 000 to *The AVA*. The executive committee are still to decide how this legacy is to be handled, but one camp would like to see it used to support travel by bizarre but enlightening routes or modes of transport to perception conferences. This would delight Tom—he had, himself, proposed the idea, somewhat wryly—but with no detailed specification in the will, we will have to see how the administrators deem best to proceed.

Tom liked to convey an impression of unconventionality, irreverence, and roguish charm. However, he could also be a rather quiet man: very thoughtful, considerate and helpful. He was loyal and encouraging to his many friends, colleagues, ex-students, and ex-postdocs. He was a great provider: always generous in his hospitality, but also generous in his science. He freely shared his insights into vision science, he encouraged others to pursue them, and he was particularly generous in giving opportunity and encouragement to young scientists trying to break into scientific careers. But, he did enjoy adventure, and his boating and motor-biking escapades were not without risk. In 1993 Tom went to Loch Ness to attend a conference on the waterfall illusion. Never without a boat when near water, Tom had taken his inflatable dinghy with him. Unfortunately, alone, in the middle of the Loch, he fell out of his dinghy, too far from shore to swim back. The outboard motor was still running, but he was saved from oblivion by a jammed rudder. Dreading the menace of the propeller, he managed to intercept the encircling dinghy and, with fading strength, to haul himself back to safety over the buoyant but un-giving bow. While biking in the Sahara, he contrived to find the only puddle in the desert and skidded in it; the bike was severely damaged, but Tom was better off with only a badly torn shoulder.

For Tom there was no divide between work and life—he loved being an academic, and it was a central part of his life. He worked at home and he 'played' at work. For many alongside him, this quickly led to friendship, and greater time in his company. Tom was quite rightly renowned for his parties, which were often held at his home in High Kingsdown, just beside Bristol University's main precinct. These were parties where one was as likely to meet a Fellow of the Royal Society or a Chief Executive of a Research Council as one of his students. The music was often loud, there was great food, and the alcohol flowed. All were drawn to these events by Tom's natural ability to bring people together and to have fun.

Ultimately, Tom did not have the profile suited for the bench science of his training. He was much more the modern day explorer, always moving on to the next 'hill', but leaving each 'village' with a warm glow, a fresh outlook, and better trading routes. The 'villagers' always welcomed him back! Sometimes this was quite literal. He liked to walk, and developed a ritual each year of leaving his house and heading out in a straight line to some distant destination, stopping each night at whatever spot he had reached. There was a single mindedness about this—and, again, no obstacles—as he walked steadily through weather fine and foul chirping: "There's no such thing as bad weather, just bad clothing!" It was on one such trip that Tom's heart problems were

first to surface. Feeling a little peaky, he checked himself into Coventry hospital where the doctors were somewhat alarmed to discover he'd walked there from Bristol, in this 'critical condition'. Thankfully, he responded well to the treatment, and was to be with us for another five years or so before his heart finally gave out. One of life's great ironies, for someone so big hearted.

Tom's contributions to British and European vision science, his stimulation and encouragement of the careers of young scientists, and his fostering of fruitful collaborations between unlikely partners provide for an immense, but understated, legacy. His scientific achievement, his vision, and his generosity cannot be measured by a mere *h*-index.

Tom's goodbyes were never short—he could find endless reasons to spend yet a further twenty minutes to see somebody else off in the hotel lobby, before he himself was set to depart. Now it is we who are finding the goodbye difficult. Tom was full of life, full of plans, and full of science but, abruptly and unexpectedly, now he is gone. It was an honour and a privilege to have known him.

Tim Meese, David Tolhurst, Peter Thompson, Iain Gilchrist