

CROSSING BORDERS

Neurophysiologist by day, artist and filmmaker by night



MARK LYTHGOE

MY entry into science was somewhat tortuous. At 18 I'd slipped through the net and failed my A-levels. I worked taking chest X-rays in Blackburn, training attack dogs in Israel and climbing in South America—before getting a research job as radiographer at Great Ormond Street Hospital. Here I slowly began to realise that both the world around me and my own body were held together by a series of laws I could understand.

So in 1993, I fought and struggled my way on to a PhD in biophysics at UCL. I loved it; all those hows and whys my mum had explained to me via a combination of Mancunian folklore and Catholic faith were finally revealed in infinite and wondrous detail. I couldn't wait to get home every evening to tell my long-suffering flatmate about what I'd seen on the magnetic resonance imaging (MRI) scanner that day.

Back then, all I knew about artists was that they dressed better

than scientists. But in 1996 I met the artist Jayne Gouge, and we collaborated on what turned into my first sci/art project—Chimera, an exhibition at the Institute of Child Health. We used MRI brain scans and photographic portraiture to create a bridge between reality and our perception of the world. The show was a perfect way for me to engage with people about the subject I loved. The gallery provided an atmosphere in which people were happy to ask simple questions about science without feeling stupid.

Meanwhile, I continued my neurophysiological work at UCL. I was leading a double life—following a conventional scientific career path by day while exploring the art world by night. Scientists can be hostile to anything they consider frivolous or dilettantish, and I was often made to feel embarrassed by my clandestine artistic endeavours. Once, applying for a new position, I was advised to remove any reference to artistic work from my CV because it might be detrimental to my chances.

I'm very proud of Chimera, but looking back, it suffered from the affliction of much recent sci/art work—a tendency to draw connections or conclusions that are trite or superficial. Even during the exhibition, I was looking for more, and it was the filmmaker Andrew Kötting who provided it. His daughter Eden suffered from Joubert syndrome—in which the back of the brain is underdeveloped—and was unable to describe

her experiences. Andrew asked if together we could take a look at the world through her eyes, and in 2002, *Mapping Perception*, a film and art installation, was the result. The project was an attempt to produce work that was both art and a product of scientific research, not merely that of an artist using the technologies of science or vice versa. It had a profound effect on me. I lived, ate and slept Andrew's world. I began to understand his language, his use of metaphor; and he would talk of the fusiform gyrus and neuronal sprouting.

What do I get out of this art stuff? It doesn't provide answers, and it rarely affects my everyday working life. But it does open up a space for dialogue I would not have with scientists. Three years ago I was chatting to an artist about whether you could "think yourself thin"—would the brain heat up if you worked it hard enough? Now we have a research programme investigating whether the brain heats up during an epileptic fit (a huge workout for the brain). More recently I was asked by the Hayward Gallery to create a sci/art installation as part of its Dan Flavin exhibition. This time I chose to work with scientists rather than artists—my acknowledgement that art has its limitations.

Yet science also has its limitations. To truly look inside a mind, to know how someone is feeling, we need more than science can offer. Perhaps combining science and art can go some way towards providing that. ☀