

Sixty Years a Wizard



Michael has now been a Goldsmith *sui-generis* for 60 years, and we've been colleagues for about 37 of them.

Bill has spoken about his erudition and his outstanding contributions to our science. Just looking at the length – let alone the breadth – of the *selected* bibliography on his lab web page is enough to remind me just how generous he has been in allowing me to pretend that *I* ever taught *him* anything at all.

The pretext for this is that he became my D.Phil student in the Programming Research Group in about 1981. In a more rationally ordered Oxford the relationship would have been the other way around. I was a very experienced compiler-writer and teacher of programming, but a refugee from the land of mathematics and logic. Tony Hoare had persuaded me that it would be good for my soul to be deported back to that land. Michael came fresh (if that's the right metaphor) from a degree in Mathematics and Philosophy, having found classics too easy.

At the time I was excited about the idea of writing nondeterministic software specifications, and I believed that I had invented an intelligible construct for incorporating nondeterminism in otherwise-deterministic descriptions. All that my enthusiasm demonstrated was that my education in logic had been somewhere between superficial and nonexistent.

In an early encounter with Michael he demonstrated my mistake to me in the gentle way that has been his teaching method for as long as I've known him. In situations like this he teaches so considerably that by the next morning you think you understood the lesson by yourself. In this case I came to understand the importance of relational specifications; and this had a large effect on the evolution of the Z notation while it was still in my hands.

All I did for him in return in the next three or four years was to insist that he find time to finish writing his thesis by giving up his addiction to writing screeds of (VAX-VMS) Job Control Language. These jobs seemed to me to be his entries for a secret competition in obfuscatory coding run by the Lab support staff.

It has since been said that he was once employed as a Fortran programmer doing some of the aerodynamics calculations for Concorde; that might explain his addiction to languages with rebarbative semantics. The addiction continued when he adopted TCL as the language for the front end of FDR.

I should mention briefly his time as a Postdoc at the Lab, and his time as Managing Director of Formal Methods. During the first he was part of a team whose work resulted in the Queen's Award for Technological Achievement for the Lab and for inmos. Formal Systems Ltd was the first commercial spinout from the Lab, and an extraordinarily successful one it was, in its time.

Towards the end of that time, and by some miracle, he agreed to join me as a one-day-a-week

tutor at Worcester College – where he has been ever since, now as a Senior Research Fellow (how long ago was it, Michael?).

Until I moved from Worcester to Magdalen we shared a large and lovely teaching room on the terrace of the main Worcester quadrangle and each of us had a study leading off that room.

Our students used to joke that we were a bit like the swiss couple in the weather house. When the weather was dry Michael would emerge with his long beard and his bald pate for a logic or concurrency tutorial; when the weather was damp I would emerge with my non-existent beard and my then-long then-Afro for a programming tutorial.

Michael is enormously talented as a tutor, and among his talents is his ability to stay silent after asking a question. Staying silent in this way is a skill I have never myself mastered, but I cannot count the number of times I listened to him, from behind my study door, asking a question in a tutorial, and then heard the room become silent – often for an uncomfortably long time if the question was hard.

But eventually one of the students would lose their nerve and attempt an answer that Michael would correct in his kindest most Gandalfly manner. Lessons such as these are never forgotten, and if anyone is responsible for creating the reputation Worcester has as a good computing college, it is Michael.

Finally, some of you may not know about Michael's prodigious capacity for collecting stuff; mostly technostuff; and for making what I can only describe as large technostuff sculptures in his workplaces.

In the days when we shared that teaching suite his sculptures were confined to his own study. They couldn't stray into the teaching room because my own bibliomaniac tendencies meant that all horizontal surfaces were covered in books.

His sculptures incorporated everything from tiny

portable computers with nanoscale keybards up to monster storage servers. These devices would arrive, get unpacked, be booted up once or twice, and then join a (static) sculpture – usually never to run again.

I am grateful to Michael for agreeable conversations about programming language design, for joint gripes about the computing curriculum, for tactical advice during the governance wars when the opposition was led from our room, as well as for the loan of the vinyl-record digitiser that I still haven't returned to him. In fact I'm grateful for more than I can remember at this point. He is a true star, and you should cherish him.

Salut, citoyen!

Bernard Sufrin

Oxford, 13 February 2019