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Dinosaurs for late developers: how to get into palaeontology by the back door

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Dr Mike Taylor is a computer programmer in his day-job, and a Research Associate at the University of Bristol. He has the luxury of working almost exclusively on sauropods, the most impressive and inspiring of all dinosaurs.

STEVE BRUSATTE recently wrote about his route into palaeontology: a four-year undergraduate degree in geology, a two-year masters degree in palaeontology and four-and-a-half years acquiring a PhD. Ten years of dedicated work and innate talent has made Steve one of the most productive young palaeontologists on the planet.

But those of us who've made different life choices haven't necessarily missed our chance. I didn't even start to take a real interest in palaeontology until I was quite a bit older than Steve is now.

Having gone through the standard dinosaur-crazed phase as a kid, I more or less forgot about them until the turn of the millennium. By that time I was a proper grown-up: married with children and established in a career in computer programming.

When I started to be interested in dinosaurs again, I joined the Dinosaur Mailing List, where rank newbies like me were able to mix with professionals and informed amateurs. (This was before blogs or social media took off: email lists were the main form of internet communication.) It was a very informative and encouraging environment.

At the start of 2001, a new and enormous dinosaur was named: the giant sauropod Sauroposeidon. I wanted to read the scientific paper that described it, and in those days it was much harder to find copies on the web. So I emailed the author, asking for a photocopy. It turned out to be a key moment: the author Matt Wedel and I quickly became friends. His emails helped me start thinking clearly about the science of dinosaurs.

In 2003, I read a piece of published research so terrible that I immediately thought, "Hey, I could do better than that", and I was up and running. My first idea was to write a rebuttal to the bad paper. Happily more constructive ideas quickly crowded that one out and I started to produce a trickle of minor contributions in 2005.

In order to write papers, you need to be able to read what's gone before – standing on the shoulders of giants. These days, more and more science is open access – free to read and re-use. But in 2003 it was much harder to find publications online. The only way to have reliable access was by being affiliated with a university. When I looked into this, it turned out that the most convenient way to become affiliated was to attend a PhD course. So I did my PhD more or less by accident, eventually putting my dissertation together by combining five of my papers.
I won't say this is an easy route into palaeontology – it's hard fitting research into the gaps left by an unrelated career and you have to be prepared to put in a lot of late nights. It also means that every conference I attend and every museum I visit has to come out of my annual leave. But there are real advantages.

Most importantly, I didn't have to gamble my livelihood on whether or not I'd be able to do good work. If I'd found it too hard, too intense, or just not for me, I could have simply stopped at any point, and been none the worse off.

What's more exciting is that because palaeontology is not my job, I don't have a boss. Since no-one pays me, there's no paymaster to tell me to work on molluscs, or Mesozoic plants, or whatever the grant money is for. I can do 100% of my work on the organisms I love best – the sauropods.

In 2013, it's easier than ever for an interested amateur to engage seriously with the sciences. The emergence of blogs and twitter, in addition to open-access publishing, means that more materials are available than ever before and in more accessible formats. The door is open.

- Photo of a palaeontologist posing with a rock containing fossils of the 'Bristol dinosaur' Thecodontosaurus antiquus by Matt Cardy/ Getty Images
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