



Philippa Ascough PhD Holocene Variations in the North Atlantic Marine Radiocarbon Reservoir Effect (GeoSciences) 2005

Who is your current employer and what do they do?

Scottish Universities Environmental Research Centre (SUERC), which is a part of Glasgow University

The SUERC mission is to perform, stimulate and support high quality basic, applied and strategic research within the Scottish University community, and broadly in the Earth, Environmental and Biomedical Sciences. SUERC provides a focus in Scotland for high quality research through its own research programme and by assisting partner universities successfully to bid for and deliver research grants.

What is your job title and what does the job entail?

Accelerator Mass Spectrometry (AMS) Scientist

I use AMS to make radiocarbon (^{14}C) measurements, for dating a wide range of archaeological and environmental samples. My work involves a large amount of personal academic research, and collaboration with colleagues in institutions worldwide. This covers a wide range of topics with a focus upon palaeoenvironmental science. My particular interests include radiocarbon (^{14}C) dynamics within marine and terrestrial systems over extended timescales, and the influence of production mechanisms and subsequent environmental conditions upon cycling of 'Black Carbon' in natural environments. My work applies a wide range of analytical techniques including AMS, NMR, FTIR spectroscopy and stable isotopic analysis. Current projects include the application of pyrolysis at high hydrogen gas pressures (hy-py) in characterization of black carbon within environmental matrices, the quantification of Marine ^{14}C Reservoir effects in the high latitude North Atlantic, and the complementary use of stable isotopes and ^{14}C in palaeodietary and ecosystem analysis.

How did you achieve your current position?

1. Towards the end of my undergraduate degree I realised I wanted an academic career, and therefore the next logical step was to do a postgraduate degree
2. I looked at options for masters and PhD degrees available at the end of my undergraduate degree, although I didn't have a definite idea for a research topic, I knew the broad field I was interested in (Palaeoenvironmental science)
3. An advert was circulated to me, looking for applicants for a PhD, starting the autumn after my undergraduate degree. I applied for the post and was accepted.
4. The PhD turned out to be exactly what I wanted, but I think in a sense you make your own 'luck' (at least to an extent) during a PhD. Provided you have supportive and knowledgeable supervisors, it's important to read widely and tailor the research to what you are interested in (to know what you're interested in, you have to read widely!).
5. After my PhD I applied for an advertised NERC-funded postdoctoral appointment at St. Andrews University, which gave me experience in a very wide range of scientific techniques. This was hard work initially, as it required me to learn a lot of chemistry and analytical methods that I'd previously not had extensive experience in. However all this paid off as we were able to publish a great deal from the research done during this time.
6. The post at St. Andrews was for 3 years, and towards the end of this time a job vacancy was advertised at SUERC in the AMS department. Although my background was not in nuclear physics (required to operate the accelerators), I had a strong background in the applications side of radiocarbon dating. I was then able to learn what's needed to run the accelerators 'on the job', although this was another steep learning curve!

How do you feel you have used the skills and/or knowledge developed during your research degree in your career to date?

As I work in an academic research environment the skills and knowledge developed during my research career have been essential in my career to date. It would not have been possible to pursue the career path I have chosen without them.

Other qualifications

Bsc Environmental Archaeology, 2001, University of Edinburgh