What do you love about your job?

I’m lucky that I’ve been able to make a career out of something that I’ve always loved: getting into rivers. As a fluvial geomorphologist at APEM, my job is to understand how rivers work and there’s no better way to do that than to get the waders on and have a paddle. For me, field work was the best part of studying geography at school and university, and the opportunity to splash around in rivers as part of my job is a real privilege. One thing I’ve learnt from my time in the field is that rivers are complex and diverse, meaning that no two projects are ever the same and I’m constantly having to learn new things and apply my knowledge to different situations. Coupled with the cut and thrust of consultancy, this variety makes for an exciting, varied, and extremely rewarding job.

What skills do you need to do your job?

A big part of my job is collecting data to try to understand and solve problems. This means that I need to be able to use a variety of different methods to gather information in the field, like measuring river flow or monitoring bank erosion. As data collected in the field is only ever a snapshot of a river’s character, I also need to be able to use computer models to understand how a river might look and behave under different conditions. Being able to analyse all of the data that we collect and to communicate the results to lots of different people is also really important. This can involve plotting data in graphs, writing reports and delivery presentations.

What do you love about geography?

The thing I’ve always loved about geography is its ability to transport me through space and time, taking me to every inch of the earth’s surface and into the depths...
of our planet’s history. By studying geography, I can travel to tropical rainforests, remote islands, baron deserts and mountain ridges, learning about different people, places and perspectives along the way. With geography, I can uncover lost and hidden worlds, from scarcely believable past environments to the movement of a grain of sand on the bed of a river. Geography is exploration and a way for us to discover the rich diversity and complexity of our planet.

**Why does geography matter in the world?**

Ultimately, studying geography helps us to understand our place in the world, both now and through time. It explains how we got here, it provides insights into what might happen in the future, and it helps us to understand differences between cities, countries, and continents. Through studying geography, we have only recently begun to understand the complex interactions between people and nature, and the role that earth’s systems play in sustaining human existence.

The global, historical perspective that geography provides is crucial for the sensitive, sustainable management of our planet and its resources, and the importance of geography will only increase as we seek new ways to understand and repair our relationship with the natural world.

Contributor: Dr Tim Meadows. In this image Dr Meadows is using a current meter to measure flow velocity on the Bedburn Beck, County Durham, as part of a river restoration project.
Why should students get excited about geography as a subject?

Geography is exciting to study because the opportunities it provides are boundless. As a geographer, you can study any aspect of the earth’s surface that interests you so there’s really no limit on what you can learn about our planet and its occupants. Because geographers study complex systems and interactions that are difficult to measure and explain, geographical knowledge is always contested and our understanding is constantly evolving as new knowledge is generated and old theories reimagined. As a result, geography is a really dynamic and exciting subject that presents great opportunities for innovative research using new methods and technologies. Of course, generating new knowledge requires new data, so studying geography often involves lots of exciting field work.

What do you think are the most pressing concerns for our planet?

Greenhouse gas emissions and plastic pollution are probably two of the more commonly cited issues facing our planet right now, but I think human encroachment onto natural ecosystems is at least as important and worrying. Humans have been responsible for destroying natural habitats to facilitate the growth of cities, agricultural intensification, and mineral extraction for centuries. Other habitats have been modified beyond recognition, such as rivers that have been straightened to improve land drainage. Habitat destruction and modification have meant that many of the beneficial services provided for free by healthy ecosystems, such as pollination, flood control, soil formation and fertility, and climate regulation, are starting to be lost.

Because of this, there are genuine risks to the provision of fundamental human needs such as food, water and shelter and we are having to pay large sums of money to replace nature’s services artificially. Biodiversity loss is also thought to be a key driver of new infectious disease outbreaks, including the ongoing COVID-19 pandemic.
Where is your favourite destination in the world from the point of view of a geographer?

I was lucky enough to study the landscape surrounding Mount St Helens – described as a ‘living laboratory’ after being devastated during the catastrophic eruption of May 1980 – and as a physical geographer and rivers enthusiast I can think of few more interesting places to visit. However, we have some amazing landscapes here in the UK and it’s hard to beat the Scottish Highlands for its dramatic scenery and complex human and environmental history. It’s a landscape forged from the collision of continents, sculpted by ice and water, and contested by people. The Highlands contains some of the last-remaining wild places in the UK but it hasn’t escaped the impact of human activity, and the rich cultural and natural heritage of the landscape make it a fascinating place to visit for any geographer.

What would you say to students passionate about the world and thinking about taking their geography studies further?

I studied geography because I enjoyed it, without knowing where it would take me or what I would end up doing. When I was at school, I didn’t know a job like mine even existed – I just knew that I was fascinated by the processes that shape the earth’s surface and I wanted to learn more.

If you’re passionate about the world then studying geography will give you unrivalled opportunities to indulge that passion and to turn it into a career, even if you don’t know what that career is just yet!

For more inspiration on why Geography matters in the world, and our Real Geographers series, go to: Historians and Geographers of the future.