

Learning and Leading Gap Scholars

● Marcella Cilia

Dates	January – July 2015
Locations	California and Seattle, USA
Activities	Internship with USGS



Why did you want to undertake a gap experience?

I initially wanted to go straight into university after school, but once I had been awarded the scholarship, and started planning my gap year, I realised just how much there is to do in a variety of different countries. However, I thought that the best way to get the most out of my gap year was to do work experience in another part of the world.

What did you do on your gap experience?

I completed a 6 month internship in Menlo Park, California working for the US Geological Survey in the Earthquakes department. The project I was working on involved examining the relationship between Modified Mercalli Intensity, Peak Ground Acceleration, and Peak Ground Velocity for the 2014 M8.8 Chile earthquake.



Early on in my internship, I applied to attend a conference in Seattle, which I was then accepted onto. This enabled me to share my work with other engineers and geophysicists from all other offices of the USGS. It was a great experience. I received very useful feedback for my work and was able to mingle with some highly intelligent scientists. I was also invited to go to Nepal to investigate the earthquake but the timing clashed with Seattle so I couldn't go.

During my free time in California, I travelled a lot into San Francisco and other places, sight-seeing and getting to know the area.



What did you find most challenging?

I faced many challenges. At first I found the work straightforward, but the further I got into the project, the more confusing everything got. I started to hear terminology I had never heard, I needed to use software I had never used (and had to teach myself in a week), and headaches were quickly building up. The job was very high pressure, and I probably put more pressure on myself than I should have. There were definitely times I felt that that the content of my work was very overwhelming. However, I worked hard to teach myself new concepts and after much persistence, things got much better and my general understanding of things greatly improved.



Another challenge I frequently faced was my health. In the first six weeks of my internship, I had to go to the ER twice for a persistent muscular problem that they couldn't quite diagnose. I had to have follow-up doctor's appointments for the remainder of my time. One of the biggest lessons I learned from this is just how valuable your health is and how it should be your top priority in life.

What impact has your gap experience had?

Being back at home in London, I am still reaping the benefits of my internship. The project I was mostly working on in California has now been turned into a scientific paper and my supervisor and I are still in constant communication finishing this up. I am also working with a number of scientists on the side on an even more significant scientific paper which will hopefully be published in some scientific journals.

I also recently submitted an abstract to attend the American Geophysical Union (AGU) fall meeting in December this year. This is the biggest Earth and Space science meeting in the world.

I feel I am in a very good position for university as I managed to learn and practice a number of key skills at the USGS: writing scientific papers; writing code and programmes using MATLAB; creating maps using ArcGIS; thinking like a scientist, and many other valuable skills.

What was the highlight of your gap experience?

Taking part in the conference in Seattle was one of my highlights as I felt a real sense of belonging and I finally felt as if I deserved to be where I was.

Were there any unexpected outcomes?

One of the most surprising aspects of my trip to California was witnessing such stark relative poverty in and around San Francisco. I found the economics behind this particularly interesting as it is generally perceived that poverty exists mainly in Less Economically Developed Countries. However, in some ways, the level of poverty in some parts of the USA is just as bad as in less-developed countries, the difference being that the media does a very good job of covering it up in the USA!

What is your advice for anyone thinking of taking a gap experience?

For those thinking of undertaking a gap experience, I strongly recommend it! Specific tips would be:

1. Trust yourself. You know yourself better than anyone else. If something doesn't feel right, don't do it, and vice versa.
2. Remember that you only live once. If you really want to do something or go somewhere, this is the best time to do it. What you can potentially learn and experience from this one year is immense: your thinking becomes different, your attitude changes, you can develop in so many ways that those going straight to university can't.
3. Make sure to learn from everything, even the bad bits. In many ways, you can learn much more from the latter. There will be difficult times for sure, but the key is to never let those things set you back. Nobody said it was going to be easy, but I can bet that the majority will say that it was worth it.

