

My research visit to Potsdam, Germany: a visit to the whole world.

When I was awarded the DAAD research scholarship to spend two months at the Geoforschungszentrum (GFZ) Potsdam I was very excited! Not only excited for what would be my first travel experience outside Southern Africa, but also excited for the opportunity to visit Germany (very top in my bucket list). I landed at Tegel Airport, in Berlin, on a Thursday afternoon (02 of October 2014) and was lucky enough to have Nonhlanhla (a friend of mine from South Africa studying her Masters at TU Berlin) waiting for me at the airport. Without her there I would have broken down before my two months experience even started. I was extremely exhausted from my two flights (Johannesburg → Frankfurt and Fra → Berlin), bloated with a headache, and needed to complete some forms at the Lufthansa Baggage Office after my luggage was left behind in Frankfurt due to my delayed first flight. Nonhlanhla was my very helpful guardian angel who took me from the airport, treated me to curry *wurst* lunch at Curry36 in Zoologischer Garten, Berlin, and further accompanied me to Potsdam, around 30 km southwest of Berlin, where I had arranged accommodation.

In Potsdam I stayed in a flat with a young couple: Gerald, a German guy married to Emma a Mexican lady. They were incredible hosts who rented me a bedroom and shared the rest of the flat with me. Staying with them was one of the best things that happened to me in Germany because they took very good care of me. I remember that on my first Saturday they took me to the Sanssouci Park, a UNESCO World Heritage Site full of 18th century palaces and baroque-style gardens. On the following Sunday they took me along to a flea market in Berlin where they sold old stuff that Gerald inherited from his grandmother. We bonded very well during my first four days (Thursday to Sunday) of arrival until I started going to the GFZ from my first Monday, and they started complaining that I was always busy and not spending time with them. They even started suspecting that I had found a German girlfriend haha.

The GFZ Helmholtz-Zentrum in Potsdam was my day home during the entire two months stay. I loved being there because of all the lovely people who work there, as well as all the laboratories I could visit to view and learn about the state-of-the-art instruments and equipment they have. That place is the ideal Disneyland to any geoscientist and I feel very lucky to have worked there with highly skilled people from different parts of the world. While there I even got myself a co-supervisor for my PhD study. I had visited the GFZ to do a short-course on the secondary ion mass spectrometry (SIMS) and to do measurements using the Cameca 1280-HR SIMS instrument after the short-course. The SIMS short-course was my best experience in Germany. I was very happy to be in a class with students from different parts of the world: China, Japan, United States and Europe (Germany, Poland, Switzerland, Hungary, Spain, Italy and Bulgaria). This was a great learning opportunity for me at an international level (another bucket list). When the short-course was over I started working at the laboratory, preparing my samples for measurements of oxygen and hydrogen isotopes. My samples were part fossil-bearing sediments collected from caves in the Cradle of Humankind (CoH) UNESCO site, 40 km to the northwest of Johannesburg, where human evolution fossil bones have been discovered. As part of my MSc in geology, I had dated Fe and Mn oxi-hydroxide minerals found in these sediments using $^{40}\text{Ar}/^{39}\text{Ar}$ and U-Th-He dating methods. This was part of exploring radiometric dating methods that can be used to date the fossil-bearing cave deposits of the CoH, and thus constrain the ages of the fossils found encased within these deposits. Following the success of dating these sediments, we

needed extra information on their formation and evolution, and measurements of oxygen and hydrogen isotopes using the 1280-HR instrument could help us obtain such information.

Unfortunately, the 1280-HR instrument experienced some challenges while I was busy with my measurements and fixing these challenges took over two weeks, due to waiting for the specialist engineer and required parts from Cameca in Paris. Inconvenient as it was, it was also a blessing in disguise. During this time I travelled to Hungary to attend a two day methods in geosciences conference in Sopron, hosted by USRA Houston. After the conference I proceeded to Vienna, Austria, where I spent two days. Upon return to Potsdam and finding out that the 1280-HR was still down I joined two colleagues on a four days trip to Krakow, Poland. Luckily I ended up being able to finish my measurements but at the cost of my planned trip to explore Germany by train. I guess I will visit Munchen, Cologne and Bremen during my next visit to Germany. At least Gerald took me to Nurnberg when we visited his family in Pegnitz for a weekend.

Overall, my research stay in Germany was unarguably the best experience of my life. I enjoyed the German culture, especially that of eating and drinking. The canteen at the GFZ and the Heisser Wolf restaurant, at the Potsdam Hauptbahnhof, were heavenly! Contrary to popular stereotypes, Germans are very friendly people, except the cashiers at all supermarkets: Rewe, Kaufland and DM. They refused to help me in English because my German language was non-existent. All I knew was greeting them and saying goodbye. Constructing sentences was a challenge but it will be fixed once I start taking German language classes at the Goethe Institut in Johannesburg. The only problem I had while in Germany was that I was overwhelmed daily by the level of development and systems in place. Top of the list was the efficient transport system and double-decker trains. In fact I remember that the transport system was so efficient such that I got left behind by a train (after being two minutes late) even when there was a strike. Such you never see in South Africa! And so it was a great experience for me. I then realised and concluded that it was the people that were developed in Germany. That is why everything was efficient.



During the SIMS course class



During a visit to the Sanssouci park



Top: Picture with SIMS course classmates, Yanqing and Wu Bin from China. Below: Selfie with Dr Daniel Harlov and colleague Ziliang Jin at a Christmas market in front of the Schloss Charlottenburg Palace in Berlin.



Selfies in front of the Belvedere Palace in Vienna, Austria



Left: One night at the Brandenburger Tor in Berlin during the Festival of Lights, Right: During a visit to the Berlin Wall.



The Cameca 1280-HR SIMS instrument getting fixed



Getting the German family experience in Pegnitz