Fernweh
Homesickness for a Place I’ve Never Been

My SUPER Experience at the University of Stuttgart
Laura Berneaga
University of Toronto
And the Adventure Begins... with an E-Mail

January 27, 2017. Seems like any other date for most people, however this day holds a special place in my heart because it was the day when my life would be completely changed, even though I didn’t realize it at the time. It’s no accident that this day coincides with the day that I received an email confirming my admission into the Research Exchange Program at the University of Stuttgart. I remember being in the common hangout space in one of our engineering buildings, working on an assignment and as soon as I saw the email pop up in my inbox, I started tearing up.

I was extremely excited to say the least, partly because I had finally secured a plan for the summer and I didn’t have to keep looking for jobs, but mostly because I would be able to combine 2 of my all-time favourite things in one project. Having grown up in Europe, I always knew I had an affinity for its culture and history, and I had always wanted to explore more of its hidden treasures. On the other hand, I was exposed to research from quite an early age, and the thought of coming up with a question that has not been asked before, and then proceeding to come up with its answer as well, was fascinating to me. I was enthusiastic, nervous, happy, but also scared, and a couple more emotions at the same time, but I knew that no matter what, I would be embarking in a journey like no other.

Casual Commute to the Coveted Continent

I’m used to commuting, I do it every single day for university, since I still live at home. But there’s quite a significant difference between a one-hour subway ride to the core of downtown Toronto and 4 flights totalling 24 hours to cross an ocean and, eventually, reach Europe. But there I was: on the airport, with a suitcase and a half and a backpack, kissing my family goodbye one last time for the upcoming 3+ months. As much as I had been waiting for that exact moment for almost half a year, the trip and what it entailed did not sink in until I entered security and could not see my parents anymore. As I was putting my baggage on the trays, I came to the realization that this would be my first time flying alone, first time living by myself, first time managing my own budget, first time travelling in a completely foreign country, etc. I shook the thought off and continued walking the endless hallways of the airport.
But it wasn’t until the plane stopped on the runway, moments right before it would speed up to take off, that all the emotions hit me all at once and I felt slightly overwhelmed. But as I heard the engines of the plane roar, preparing to lift the metal box in the air, I felt the excitement of the unknown and of the adventure once more, and as we were speeding on the runway, I waved goodbye to Canada one last time. It became a tradition of mine, whenever I would take off, to listen to the engines and just like them, prepare for what’s to come.

Willkommen nach Stuttgart!

My flight wasn’t direct, so I landed in Frankfurt and had to take the train to Stuttgart. I bought tickets for whichever train left first, but it so happened to be an ICE. Apart from being surrounded by signs and people speaking a language I did not understand at all, with giant suitcases, and trying to find a seat that had not already been reserved, I was now in a train, going at 250 km/h. I was watching the people around me, as they calmly went about their day, and I was trying to do the same, but I was internally freaking out! 250 km/h?? That’s the speed a PLANE NEEDS TO TAKE OFF!

After only an hour, I made it on the platform of the city I would call home for the next 3 months. My very first impression of Stuttgart was the long hallway between the platforms and the main train station hallway, that had different designs that showed the future of transport, with modern trains and cars. I was so fascinated, that I remember stopping over at each design to read its specifications.

Figuring out how to get to the student residence using the U-Bahn was a completely separate issue that I had not even thought of, but luckily, I didn’t even have to, because I had a buddy (a University of Stuttgart student-volunteer) waiting for me at the station that helped me navigate the city for the first time. We had finally arrived in my apartment, said hello to one of my flatmates that walked by and entered my room for the first time. I talked with my buddy about meeting up the next day to finish all the required paperwork, made a list of all things I needed to get done and an action plan, but instead…. I fell asleep.
Exploring Stuttgart

I woke up the next day, having slept one too many hours, but considering all the travelling and the time zone difference, I allowed myself to sleep in. Since I landed June 1st and June 5th was a holiday, we had a couple of days to adjust to our new home and get to know the city a little bit. As I was hanging out around the student residence, I got to meet a couple of the other students in the SUPER program. I was quite relieved that the majority of us spoke little to no German, so navigating our way around the city was just as confusing for everybody.

But we managed to figure out our way around the U-Bahn and S-Bahn systems, which were completely different to any transit system I had ever encountered before. Toronto is struggling to manage its 4 subway lines, whereas in Stuttgart, there were over 30 U-Bahn and S-Bahn lines, and in some instances, they even had 4 separate lines going on the same track, while still being on time! We got off at Hauptbahnhof and walked around Königstraße up until Schollplatz; then the next day, we visited the park that was across the street from our residence; another day, we took the U-Bahn and randomly got off at stops that looked beautiful or interesting and explored those areas. We were already piling up the list of memories and adventure, and it hadn’t even been a week yet.

After an eventful long weekend, June 6th finally came, which was the first day at our institutes. We were officially starting our research, which for me at least, meant that from now on, we would be professional and actually do work, putting an end to our spontaneous little trips. Little did I know how much more I would end up travelling and exploring Stuttgart and so much more.
Learning about Biopolymers – The Research Project

I was in a special situation, but a very lucky one nonetheless, where the institute where I was supposed to be placed changed their structure, which meant I could not be a student there anymore. Therefore, the institute where I was placed, the Institute of Polymer Technology, was chosen based on my resume and qualifications, making it a perfect fit for me and vice versa. I had been put in contact with my supervisor, Ms. Silvia Kliem, starting in late March, thus, even if I would not arrive in Germany for another 3 months, we had gotten to know each other via email in that time. I was very grateful to have started communicating with my supervisor early on because we got to know each other prior to even meeting in person, which made our first interaction much smoother. Ms. Kliem assured me that there is no work related to the research I will be doing that I needed to do beforehand, since we would deal with everything once I was physically there. I was very excited to start working, however I did feel slightly overwhelmed on the first day, since I was expecting to encounter some brand-new concepts that I would have to study in order to familiarize myself and be up to par with the knowledge level of the project. However, because the project was chosen based on my skills and education level, I already had prior knowledge about the topic and the work I would be doing was based on concepts I had already encountered in some of the courses I had taken in university. In addition, on the first day, I got a tour of the institute, looking at all the machines that were used for other projects and that I would shortly use as well.
The actual project was focused on biopolymers, specifically lignin, which is a leftover material from the process of turning wood into paper. The issue with most biopolymers is that their structure, and thus their properties, change depending on the source where they come from and the way they are extracted, making their properties unpredictable and very difficult to work with. In our case specifically, lignin is a very sticky material, since it acts as the glue keeping the cellulose together in the wood. Since the industry of paper is enormous, there is a lot of lignin that ends up being thrown away, therefore it would be useful to find a method to recycle it and make it useable in the industry. Thus, the goal of the project was to find an additive or another biopolymer to combine with lignin in order to make a powder that can be laser sintered into various applications, such as musical instruments, and decorations for its wooden look and feel, but also biomedical applications, since biopolymers are biocompatible, thus the human body would accept them as natural.

The work I was focused on was on creating the compounds, turning them into a powder and characterizing them. Using the twin extruder, we would be able to mix together different types of additives with lignin, at various temperatures and in various ratios. Because of the lignin’s stickiness, the higher the percentage of lignin, the more issues we encountered with the machine, since it would get stuck. For the compounds that we got to work, we would cut them into small pieces, cool them in liquid nitrogen and grind them. Finally, we would characterize the properties of the powders that we deemed interesting: for its particle size, we used a Scanning Electron Microscope, for its viscosity, we used a Rheometer and for its thermal behaviour, we used a Differential Scanning Calorimetry. Afterwards, I compiled all the data in various charts using Excel in order to compare the best compounds.

I absolutely loved working at this institute for various reasons. Firstly, I was not working on the Vaihingen campus of the University, instead, I was working in a separate building, closer to Marienplatz. While this initially seemed off-putting, since I was not close to my new-found friends, I loved being close to the center of the city. In addition, the team of PhD students working there was quite small, so I got to know them quite well while talking to them during the coffee breaks that we would have every morning in the Sozialraum. We even had a Weißwurst party on my last day, with Pretzels and mustard, which was absolutely delicious. Another thing I loved about my institute was everyone’s openness to helping me learn German. I would constantly listen to the PhD students’ conversations during lunch, trying to pick out the words I knew, and I would always ask them how to translate something or how to pronounce it.

I truly felt that at the end of my project, I had gained so much knowledge, not just about biopolymers or lignin, but about the German culture, history and language. Moreover, I was very lucky that in the end, my supervisor Silvia, also became one of my closest friends, that I am still in touch with.
Exploring Europe’s Hidden (or not so Hidden) Mysteries – A Recount of My Adventures

A big part of why this summer was so incredible were all the trips that I got to share with some of the people that I hold closest to my heart. I always knew I would love travelling, but it has been a challenge to see new places here, since in Toronto, you could drive for hours and still be in the same region. Thus, when comparing Canada, a country that stretches over 3 time zones, to Europe, one of the main startling differences is the proximity between all the countries. Once you are in Europe, it is so easy to make your way around, and it’s also extremely cheap! As a result, in the span of 3 months, I was able to visit over 9 countries, and over 20 cities, and yet I am still not even close to being done with this continent. I remember that skyping with my family was always funny because it became an ongoing joke to “guess what country Laura’s in this weekend!” because truly every week, I was in a new place. I have been thinking for a while how to put the experiences I had into words, but truly, it is impossible for me to comprehend it myself, let alone try to explain it. So, I will let this series of photos recounting some of my most memorable trips do the talking for me.
All Good Things Must Come to an End...

I wanted to keep the memory of the places I had visited alive with me somehow, so I decided early on to buy a postcard from every single city that I would visit and write a quote on its back, about how I felt at the time, something I’ve learned or seen, or something that can transport me back to that time and place. I had accumulated a fair share of postcards by the end of the 3 months, which is probably one of the most tangible proofs that confirmed I did actually visit all those places.

But I waited until my last day to buy my postcard for Stuttgart. I waited until I finished my research project and I hugged my supervisor goodbye one last time. I waited until I came home one last time from my final trip of the summer. I waited until I said goodbye to all the people I had met this summer, because their flights were earlier than mine. I waited because I knew that the minute I bought that postcard, it was truly over and from then on, I would go back to Canada and to school, 2 things that seemed completely mundane compared to the experiences I had had over the summer.

Most of the quotes came very naturally to me, because there was always one phrase to summarize my time in that specific city, but Stuttgart, the city I spent the most time in, turned out to be the most difficult. But then I thought about all the things I wrote in my last paragraph and I instantly found the quote that summarized not only Stuttgart as a city, but the summer as a whole:

“How lucky am I to have something that makes saying goodbye so difficult...”
Advice and Tips

- Make a list ahead of time of the basic essentials you will need in your apartment (toilet paper, soap, some food, etc.) for the first day so you have a clear idea what to get at the supermarket – you will figure out the more specific things you need as you go, but get the basics

- Ikea is a great place to get cheap kitchen utensils

- Internet through cable is provided in your room, but unless you can turn your laptop into a router, bring one from home (although buying one while already in Stuttgart is quite cheap)

- When Germans tell you to be on time, trust me, BE ON TIME! They truly hate it when people are late and will let you know (and for all the future U of T students: U of T time does not count!!)

- Most Germans are not rude, but they are direct, so do not be offended if they are upfront when addressing you

- Germans do not like nor do they know how to small talk, so talking about the weather or asking them ‘How are you?’ is weird unless you mean it. They only have a conversation when there is something to be gained from it, so you might notice silence breaks during lunch with Germans because they’d prefer to sit in silence than to talk about something meaningless.

- Do try your best to learn even a little bit of German – even if it’s just the common phrases!

- Participate in as many events organized by the University! From fieldtrips to other institutes to hiking trips in the Alps, they were very interesting and valuable (would also add cheap) experiences that I would have never had the opportunity to do otherwise

- Try beer in Germany, even if you do not like beer! They’re well known for it for a reason and even friends of mine that despised beer ended up liking it! (although, Radlers are a good alternative)

- Go to bakeries: they have cheap, fresh and delicious baked goods!

- For finding the cheapest alternatives in travelling:
  
  o [https://www.trainline.eu/](https://www.trainline.eu/)
  o [https://www.goeuro.com/](https://www.goeuro.com/)
  o [https://www.hostelworld.com/](https://www.hostelworld.com/)

- Do free walking tours in the cities you visit! They will take you to the best spots in a short amount of time and I mean… they’re free!

- Blind book a trip if you get the chance!

- Say YES to things you would have never done before! Before you say ‘no’, just think: how many times are you going to get an opportunity similar to this one?