



Buenos Aires and the Mate-matics of Ocean Plastics

Before arrival

We heard from friends that we could apply for a scholarship from KTH Field Studies to do our bachelor thesis abroad. We were both very intrigued by South America as a destination. One of us had already been to Buenos Aires two years earlier and wanted to return, but this time for a longer period. Thus, we were very happy to get a positive response from a physics professor at University of Buenos Aires (UBA) that we had emailed. More specifically, we chose a project in which we would study the accumulation of plastic particles in the ocean. UBA is the largest (and most prestigious) university in Argentina and they are currently conducting lots of research within the field of fluid mechanics, so we had lots of different opportunities when choosing the project. For example, an interesting project that we didn't choose consisted of doing statistical analyses of weather data gathered from the South Pole.

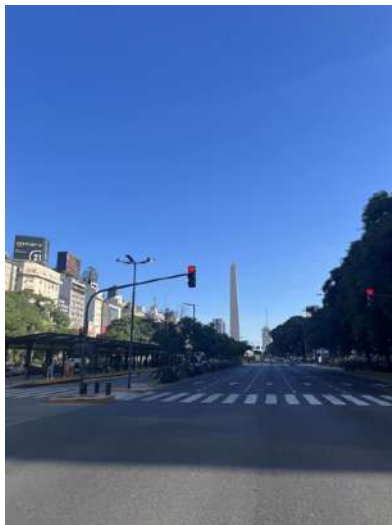
For us it was a bit easier with the language because both of us speak Italian, so Spanish was not too difficult to learn. Towards the end of our stay we could handle conversations with strictly Spanish-speaking friends without any issues. At the university almost everyone knew English so Spanish was not needed in the work context. However, not many people speak English in Buenos Aires so a very basic level of Spanish is recommended for everyday activities. This is not to discourage non-Spanish-speaking people, but don't expect to get by without learning a little bit of Spanish. A few DuoLingo lessons and some practical experience should do. Also, people were helpful and would often volunteer to translate.

At the time of our trip there were no mandatory vaccines for travels to Argentina. We did not get any vaccinations done before departing, even though some suggested to take the newly developed Dengue fever vaccine. In the end, a combination of different reasons, namely: the vaccine being really expensive, the long waiting time in between the two doses, and some negative stories from vaccinated people we met, lead to us opting out. After speaking with some local people, only a small portion of the population of Buenos Aires seems to be vaccinated against Dengue fever, and at the time of our trip there were very few mosquitos around. However, the year before, a big Dengue fever outbreak had occurred in the area and it was something we were worried about initially. For the period of our trip, it turned out to not be too big of a deal in end, but it's something to keep in mind regarding vaccines.

For the visa application, after contacting the embassy and showing them the details of our project, we were informed that no student visa was required and a regular 90-day tourist visa would be enough. We made sure our stay was 89 days long, just under the 90 day limit, to simplify things. However, it's not unheard of that you can get around any visa issues (if you happen to stay a little longer), by taking a 2h ferry to Uruguay and coming back the next day (officially leaving the country), resetting the 90-day period.

Upon arrival

The duration of our project was almost three months. We arrived a few days past mid-January in the peak of Argentinian summer, leaving behind -5°C and darkness, finding 35°C sunny weather. Pablo, our contact person at the university, was very understanding of the consequences of a 2h + 14h flight combination and let us take a couple of days of rest, easing into the first week at UBA. The first days we got to meet Pablo and a few PhD students in the large research group called FLiP at UBA. Since we arrived during the Argentinian summer break, there were not many under-graduate and master students at the university apart from a few students taking summer courses. The whole FLiP group was really kind and welcoming. It's custom for them to eat lunch together and have coffee everyday, which gave us a chance to socialise early on. The first week the PhD students invited us to go out with them for an afterwork, and the second week one of the students invited us for his birthday party where we got to try empanadas and share a "viajero". They were very inclusive and it was really easy to make friends with them.



Financials

Before discussing the financials, it's important to mention that Argentina has a very troubled recent economic history having had very high inflation for years. We were a bit surprised by how expensive Argentina had become recent years. Groceries prices were about the same as in Stockholm, if not higher (exceptions being meat and alcohol that were very cheap in comparison). Everything imported was really expensive, especially clothes. The only pieces of clothing we bought were (fake) Boca Juniors shirts from La Boca and underwear from the supermarket, which were reasonably priced. However, public transport was really cheap (and of high quality). A bus or metro ticket cost about 5-8 SEK and public transport in general worked really well and was surprisingly clean.

The first month we (almost) only used our credit cards. We brought some Euro bills with us and exchanged them for Argentine pesos at a Western Union, helping us cover expenses that could only be paid in cash, such as public transport cards and sometimes tips when going out to eat. However we soon realised that we would get a much better exchange rate from SEK to ARS by sending money (in SEK) to ourselves through Western Union in exchange for cash (in ARS). Furthermore, lots of shops and restaurants offered a discount of 10-20% when paying with cash. The two following months we paid almost everything in cash. Fees do not scale linearly so there was an incentive to exchange larger sums but it was not always a smooth process. The largest Argentinian bills were the quite rare 20 000 pesos bills, equivalent to a little less than 200 kr at the time of our trip and it happened quite a few times that Western Union ran out of both 20 000 and 10 000 pesos bills, instead offering to give us the whole amount in 1000 pesos (a little less 10 kr) bills. You can imagine how many bills that results in when exchanging a few thousand kr. It's like offering to pay rent with coins in Sweden. Not very practical. To have a better chance at receiving larger bills it's recommended to go early in the morning. You get more value by paying cash and the process of exchanging money is not too cumbersome but keep in mind that sometimes getting a practical bill size can prove to be an issue.

Accommodation

We found our apartment through Airbnb. Our contact person recommended us to stay in a neighbourhood called Palermo, which is a nice residential area not too far from the university, home to the largest parks in the city. We initially booked an apartment only for the first month, since we didn't want to book for the whole 3-month period without knowing anything about the neighbourhood and the apartment. Airbnb has a monthly discount so one month seemed like the best option. Upon arrival we booked the apartment for the second month in a different part of Palermo and the last month we moved to a different apartment in yet a different part of the same neighbourhood. All of the apartments were very similar: they were all quite small one-bedroom apartments with two single beds, kitchen and bathroom. They all had the regular things you expect, like AC, Wi-Fi, a TV, etc. but surprisingly dishwashers are extremely rare in Buenos Aires and washing machines are also quite uncommon. We only had access to a washing machine the last month of our stay, but there are plenty of "lavaderos" in the city that will wash, dry and fold your clothes for around 70 SEK/bag of clothes.

The monthly cost for the apartment was around 10000 SEK in total (5000 SEK each), which is not too bad considering the great location, but a bit on the expensive side after speaking with some other international students and local people. However, for such a short stay (relatively speaking), Airbnb was probably the best alternative for accommodation.

Project

Our project involved conducting research on the movement and clustering of plastic particles in the ocean. The short-term goal was to help develop a model for the movement of plastic particles in the ocean through experiments and support further research at the university. The long-term goal is to help counteract the formation of plastic islands along Argentinas coastline and facilitate clean-up operations. Experiments were done with plastic particles in a water tank, with paddles creating waves, mimicking the ocean.

On a typical day we would arrive at the university at around 10 am after a 20-30 minute bus ride, go to the lab and work a couple of hours, then have lunch with the FLiP group (students and professors would eat together which was really nice). After lunch we would go back to the lab and then a couple hours later we would go upstairs to a room used by the PhD students and have coffee and chat for a while. After coffee, we would head back to the lab and work a couple of hours, before taking the bus home again. We were given a lot of freedom with our schedule, implementing a more results oriented approach. As long as we got things done it didn't really matter how much time/how many days a week we would be at the university. There was also no problem in taking a few days off to travel for example.



We preferred to be at the university so we were there almost all the time, and from a social perspective it was nice to always eat lunch with the group and have coffee together.

Now that we have returned to Sweden we are still in touch with Pablo and the group. Once the KEX report is complete we will have an online presentation showing our results to the FLiP group and hopefully our results will be useful for future research at the university.

Country

Overall, Argentina wasn't too much of a culture shock. It's very similar to Italy/Spain. Buenos Aires is considered a very European city, not only due to its architecture but also the people living there.

Music:

Argentina is very famous worldwide for its tango, but speaking to locals, it seems like tango is quite niche amongst the general population, especially young people. Although many people also listen to American/European pop music, the most common music genre amongst young people seemed to be cachengue, a more local genre which is a mixture of cumbia and reggaeton. There were cachengue clubs and there were techno clubs, and a few places also played western music but usually combined with some cachengue.

Food:

If you love meat Argentina is the right place for you. Typical food includes steak, sausages, grilled cheese; basically anything that make your cholesterol levels shoot up. Other than that, Buenos Aires offered a variation of foods which are perhaps not the most common in Sweden. We didn't find great Italian, Japanese, or Thai food at a decent price but what we did find was some good Colombian, Venezuelan, and Peruvian food as alternatives to Argentinian food. Empanadas are a nice and cheap on-the-go local alternative to hotdogs/sandwiches.

Traffic and roads:

Cars never stop at crosswalks unless there's a traffic light; the white stripes you see are just decorations. The bus drivers are like Formula 1 drivers: they drive extremely fast and usually open the doors while still driving at 30 km/h, and sometimes they don't even stop completely at bus stops so you are expected to be really quick. A lot of main roads in the city (especially in Palermo) are huge. There were a few one way roads with 10-11 consecutive lanes that would occasionally be empty during the summer and it felt a bit strange jaywalking such a large road even if no cars were around.

Daily timings:

Argentina is similar to Italy and Spain in the timing of meals and opening hours for shops and restaurants. Don't expect to eat dinner at 18:00. It's not uncommon to see people still eating close to midnight. To give you an example, one night we went out to dine at Don Julio, probably the most famous Argentinian Parrilla (Steakhouse) in Buenos Aires and thus it had been difficult to get a reservation. However, we had managed to get a reservation for 23:30, finishing our dinner at about 01:00. The time offset compared to Sweden is also very noticeable when it comes to nightlife, which will be discussed later.

The concept of sharing:

It's part of Argentinian culture to share things to a much higher extent than in Sweden. This is true for mate (a common hot drink in Argentina), which will traditionally be passed around for everyone to drink from the same straw. The same was true for drinks at a house party. Everyone would drink from the same large drink, passing it around. People were less squeamish in general. Taking a friend's already used plate for eating dessert when plates were few was not a problem for example.



Leisure and social activities

The offer for sports and culture in Buenos Aires was great. If you're a football fan, it's the best place to be. There are so many football teams in Buenos Aires (the most famous being Boca Juniors and River Plate), and the atmosphere is extraordinary at the stadiums. We went to a Boca Juniors game which ended 4-0 to Boca. Their stadium, La Bombonera, is known to have the best atmosphere in the world and everyone was singing throughout the whole game. Away fans are not allowed at the stadium. If you go, wear a boca shirt and try to sing along. When Boca scores the stadium explodes; it's an epic feeling. However, since you have to be a member to get a ticket, it's a bit difficult to get one. By asking around, and through the usual process of: I know a guy that knows a guy that knows a guy... We eventually found a trusted guy that would resell tickets at a fair price, which was around 1000 kr. That's how we managed to attend the game, and it turned out to be money well spent.

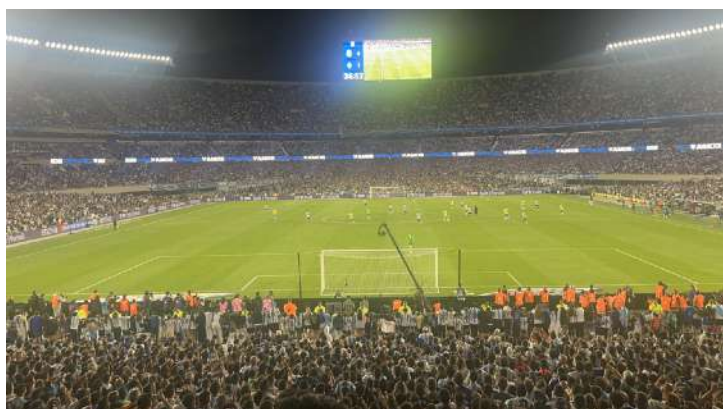
We also got tickets for the Argentinian national team for the derby against Brazil (which luckily ended 4-1 in favour of Argentina) at the River Plate stadium, the Mas Monumental. This time it was possible to get tickets through the official website at a reasonable price, but in order to get them we had to be ready the same minute tickets dropped, wait in a digital queue for half an hour, and purchase them instantly once it was our turn, before they sold out. One of the PhD students helped us using her Argentinian credit card for the payment to work. Not an easy process, but in the end we got the tickets for only 750 kr. The atmosphere was also fantastic at the game but unfortunately Messi got injured a few days earlier and didn't play.

Buenos Aires is also very famous for polo and horse racing events. In Palermo there's a massive horse racing track (Hippodromo) and we attended some races one evening, betting on horses without much success. A really fun experience and perhaps not so common in Sweden. Definitely something to try at least once in Buenos Aires.

A night out in Buenos Aires starts when a night out in Stockholm typically ends. It's fairly common to stand in line for the club past 03:00. The clubs usually open at 00:00/01:00 and don't get full until 03:00. They typically close at 06:00/07:00 but the real Argentinian party experience includes an after-party until 09:00/10:00 in the morning. If you go out at night in Buenos Aires and want the real experience the next day will go to waste. But it's also lots of fun of course.

A nice social activity we found was an initiative called "Mundolingo"; organised language events in different bars multiple nights of the week. When you arrive you order something to drink and get flag stickers with the flags of the countries you have origins from or whose language you speak. You can then socialise with people speaking different languages and learning about their background. Both local and internationals would visit such events and it was great for sharing culture and experiences with people from different parts of the world, as well as for practicing Spanish (and other languages).

We also played lots of football with the PhD students from the FLiP group and with other international students. There were many tennis and paddle courts close to the university, and a huge private park called "Parque Norte" with a large pool and lots of sport fields. There were plenty of gyms in the city.



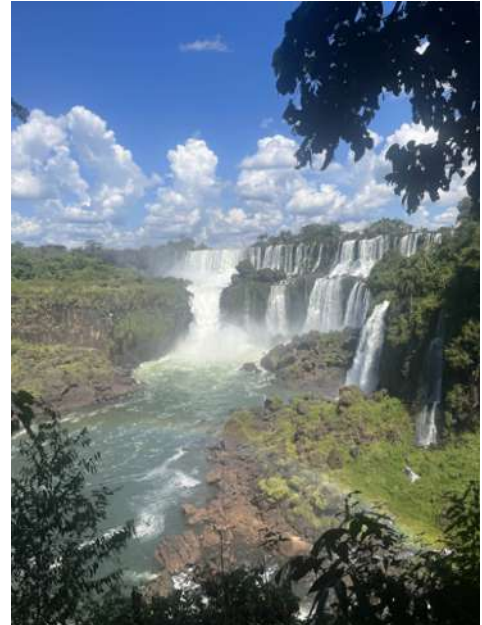
Travels

During our three-month stay we had time for three longer trips. The first one was a trip to Bariloche in Patagonia. It was about 2h flight time from Buenos Aires and the nature was really beautiful. Amazing lakes and mountains (and even a glacier). Bariloche is also famous for its chocolate. Perhaps the closest thing to Switzerland in South America? It was less hot outside than in Buenos Aires but the sun was surprisingly intense and we both got burnt the first day. There's lots to see but the distances are large so it's recommended to either rent a car or pay for guided tour in which transportation by bus is included (which is what we did for the seven lakes route and the Cerro Tronador). Other places like Circuito Chico and Cerro Catedral are reachable by public transport (buses) which you can pay with the same public transport card as in Buenos Aires (the SUBE card) but are more expensive.

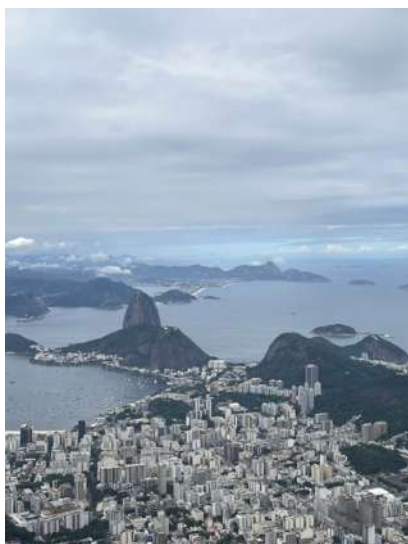
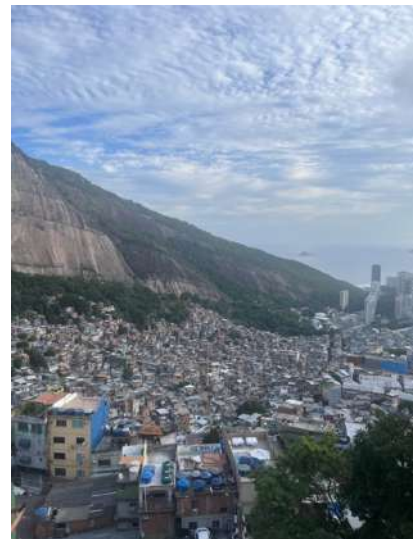


The second trip was to the Iguazú falls, the largest waterfall system in the world, at the border between Argentina and Brazil and incredibly beautiful. This was a trip organised by an organisation called BAIS (-yes, funny name in Swedish. Stands for Buenos Aires International Students) and was a great way to meet other students from all around the world. We went by bus, which took 24h (it was a looong trip), and visited both the Argentinian and Brazilian side of the falls. On the Brazilian side, we also went underneath the waterfalls in a boat - a really cool experience. The trip was fun and enabled us to socialise with other students. The long bus ride was a great way to make friends at the beginning of the

trip, but quite exhausting since two days in Iguazú required two days on a bus in total. There was a possibility to go by plane which might have been worth it in hindsight. BAIS organises the Iguazú trip multiple times a year and it's definitely one of the best activities you can do as an international student in Buenos Aires from both a travel perspective and a social perspective.



Our third and last trip was to Rio de Janeiro in Brazil. An incredible city with nice beaches and some breathtaking views. It was about a 3h flight from Buenos Aires and we stayed for 5 days. Rio was cheaper than Buenos Aires but also felt much less safe. Even in nicer areas we were told not to take our phones out too close to the streets as someone on a motorbike might steal it. Obviously the more touristy places were very safe but there was much larger (and more sudden) contrast between nice and less nice neighbourhoods than in Buenos Aires. In Rio you could find yourself in a safe area and then one block away the area would not be considered safe anymore, whereas in Buenos Aires all of the northern neighbourhoods in the city center (Palermo, Recoleta, Belgrano, etc.) felt very safe and there was no risk of suddenly walking into a dangerous neighbourhood. Also, since they speak Portuguese it was a bit more difficult to communicate, but speaking Spanish with them would usually work. Despite perhaps not being the safest destination Rio was a really cool city and definitely worth a visit.



Sustainability

From an environmental perspective it's difficult to compensate for the emissions that 16 hours of flight time lead to, but there were obviously no plausible alternatives to get to Argentina and back. South America is also a really large continent and thus even when travelling within the country the distances were surprisingly large. For the trip to Bariloche and the trip to Rio we had to go by plane. For the trip to Iguazú we opted to go by bus instead of plane, which took 48 hours round trip. When it comes to longer travels, we didn't have many sustainable alternatives and the solution would have been to simply travel less, but we felt like this was a great opportunity to explore a new part of the world. Regarding daily commute and transportation within the city, we managed to do that in a rather sustainable way. Buenos Aires is a pretty walkable city and we could usually walk comfortably to most destinations. To get to the university we always took the bus and all the most important destinations in the city were reachable by public transportation. There were also city bikes available for rent. The project was most tightly connected with SDG 14, life below water, since the purpose was to understand the movement of plastics in the ocean to help guide cleanup efforts and marine life conservation.

Other recommendations and observations

Two to three months might seem like a lot of time but time goes by really quickly when you're there. There's lots to do and see in the city that we didn't have time for in the end. Don't leave all the activities for the weekends. Obviously, plan your trips ahead of time. We didn't have time to visit the northwest of Argentina but there are lots of great places to see there, such as Mendoza and Salta. Also, after trying many places, the best gelato in the city can be found at a place called Rapanui.



Leaving Buenos Aires

The last day of our stay we had a traditional Argentinian Asado (barbecue) with all the PhD students and a friendly football game before we said goodbye. It was a really nice way of rounding things up before we left.

