

European Vacation Placement Scheme – Non-technical report

Arriving in an international office at the height of the football world cup was definitely an interesting experience. Although my primary aim for my placement in the Vienna University of Technology was to learn more about the ins and outs of postgraduate level research, I found myself immediately taking in huge amounts of information on almost every culture in Western Europe, particularly the complicated matter of international sport.

My name is Josh Weston, and I am about to start my third year studying Materials Science & Metallurgy at St Catharine's College, Cambridge. When the department gave me the opportunity to study and research in Europe over the summer, I was initially apprehensive due to my almost complete lack of language skills. After this initial dismissal, however, I started to realise that my lack of a foreign language was not a barrier but the perfect reason to apply for the scheme. As well as allowing me to gain invaluable experience in research, a project in Europe would allow me to immerse myself in the culture and the language of another country, an opportunity which is rarely available to a cash-strapped student.

I chose Vienna in an attempt to really take my immersion idea to the extreme. My experience of Austria was non-existent, and my German vocabulary stretched to around a dozen words. I figured that if I was to try a new culture, it might as well be as new as possible. Luckily, the project offered at TU Wien seemed like something I would enjoy.

My project placed me in an office focussed on titanium alloys. I was originally keen to gain some more in-depth knowledge of a light alloy, since undergraduate metallurgy seems often to rush past these alloys in favour of steels. In this respect I was pleased; I was able to apply my knowledge of metallurgy, learned primarily in the context of steels, to a new context and to a new alloy. Specifically, I was working with another researcher to examine the effect of thermomechanical processing parameters on the microstructure of the Ti-6Al-4V alloy.

As I mentioned earlier, TU Wien truly is an international university, and the differences in European cultures is never more apparent than in the midst of one of the world's largest sporting events. The Austrians would never support Germany, the South Americans throw their support behind any of their continent's teams, and the Spaniards celebrate victory in style. Although most in the office were working individually on research projects, there was never any hesitation in sharing details of their home countries or their favourite parts of their adopted Austrian culture. Sitting opposite an Austrian helped my language skills more than any dictionary ever could.

Outside the office, Vienna was just as beautiful as I had heard. The architecture never failed to amaze with its grandeur and its size, and the huge expanses of public parks provided the perfect place to spend an afternoon in the sun with a good book. The music was also present everywhere I went, from the choir outside the city's cathedral to the man playing the accordion on the underground train. The atmosphere around Vienna was undoubtedly Germanic, but contained occasional influences from the Mediterranean and Turkish cultures that had settled in the city over the years. The result was an unexpected combination of the best food, music and culture that Europe has to offer.

I arrived in Vienna with very little idea of what I wanted to do once I graduated. A major aim was just to sample the life of a research scientist, and in this I definitely succeeded. Whilst the cutting edge of research is, as I suspected, full of mundane tasks and repeated tests, this is far from all it has to offer. The real attraction for me came in the analysis of the results; the solving of a complex puzzle to move from raw data to a real conclusion of real importance to a person or an industry. When high-end science can often seem so abstract and disconnected from the real world, it was very refreshing to see results that are of real practical worth.

And it is this that I think sums up my time in Vienna. I arrived almost expecting to be disappointed, by the monotony of research and the difficulty of a language and culture barrier. What I actually saw was refreshing in its relevance, its diversity and its complete acceptance of a cynical foreign student. For this outstanding experience, I'd like to take this opportunity to thank the people who made it possible; the Department of Materials Science and Metallurgy at Cambridge, the Worshipful Company of Armourers and Brasiers, and the Institute of Materials Science and Technology at TU Wien.

Joshua Weston, St Catharine's College, Cambridge