Skaftafell 2013: Expedition Report
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Introduction
With the assistance of the Queen Mary Expedition Fund, we were able to make our trip to Iceland for the month in August 2013 possible. The purpose of our expedition was to carry out 5 separate research projects, 3 of us conducting our IGS undergraduate research to formulate our dissertations and 2 compiling research to go towards their PHD thesis write ups. All of our 5 projects were conducted on the outlet glaciers of the Vatnajokull ice cap. Vatnajokull is the largest glacier mass in Europe and covers a vast area of almost 8,3000 km²! At its thickest point it is estimated to be around 1,000m thick. In 2008 the Vatnajokull ice cap was declared a national park and it covers more than 13% of the whole of Iceland.

We needed to pay for all sorts of things and as we were all students we knew it would not be possible to do this simply from our personal money. The group formed from, what was to begin with, a group of random individuals, all who knew nothing about each other, grouping together based on our keen interests in glaciers and glacial environments. A trip like this was certainly a once in a lifetime experience and being able to conduct research in such a unique and contrasting environment was quite literally breathtaking.

Day to Day Routines and Camp Life
Camping for the entire month was the most challenging aspect of our expedition. Icelandic summer days are long and bright, so there was little darkness during the night; and it could get very cold! When we arrived at Keflavik airport, three of us took the bus to the Skaftafell campsite in order to set up camp ready for the other two to arrive by car. We all had our separate tents, and showering and washing facilities were available at the campsite. Our everyday routines consisted of a typical 7am wake up call to which we would all have turns to cook porridge, which on majority of mornings ended up burnt, cold and always bland. We’d make our lunch then split up into two groups to go into the field for a whole days work ahead of us. Most days we would end fieldwork around 6pm to which we’d make our way back to the campsite, knackered yet still having to prepare dinner in the evening. We were able to have a few rest days which kept us sane. Days where the visibility and weather were poor gave us an excuse to set up camp in the warm campsite café, eating soup and cakes all day (whilst doing some work of course).

Fieldwork
Each of us had different projects so undertook fieldwork at different locations using very different methods. Our time was split as equally as possible between each project; spending days at one another’s field sites to assist each other.
Laura set up a series of ablation stakes for her dissertation research, looking at surface lowering and the formation of dirt cones, a fast evolving glacial feature. Studies such as these are very topical and important when trying to assess the mass balance of the glacier and essentially the effects of climate change for the future. Her studies were based on the Svinafellsjökull glacier; which has featured in the Batman Begins movie and an upcoming Christopher Nolan movie!

Maryum undertook fieldwork on the Falljökull glacier which flows over a type of wet sediment called subglacial till. Subglacial tills are easily deformed by glaciers and these deforming layers underneath glaciers can influence glacier motion. In order to study how these till layers affect the Falljökull glacier, samples were taken back to the UK and investigated using a process called X-ray computed microtomography. This high resolution 3D analysis allows conclusions to be made as to whether the saturated till layer has significantly enhanced ice movement at the Falljökull glacier. John and Jonny undertook similar methods for their research; taking samples from the same glacier for investigation.

Abigail set up gauging stations in a meltwater stream of the Skaftafellsjökull glacier to monitor the amount of sediment being transported through the stream at two separate points. The studies involved entering the freezing cold stream (0.2°C to be precise) multiple times to move probes and measure variables.

Tourism
On our rare days off of fieldwork we tried to visit local tourist hotspots to experience Iceland as fully as possible. We took the scenic coach journey to the campsite from Reykjavik; so saw beautiful waterfalls and sites on the way. Once in Skaftafell, we used our spare time (when not recovering from fieldwork) to visit the Breidamerkajokull glacier, the glacial lagoon Jokulsarlon and a local hut, referred to as the Breida Hut, where many glaciologists have stayed while undertaking research in Iceland like us. A firework display took place at Jokulsarlon whilst we were there; which was one of the highlights of our trip. Once back in Reykjavik we visited the Blue Lagoon; a geothermal spa popular with most tourists who visit Iceland.

Our Overall Experience
We all had the most amazing time in Iceland; and our expedition has helped us both academically and personally. We would like to thank QMUL Expeditions Fund for helping to make our expedition possible.