

In June 2015 students and staff from the University of Glasgow travelled to Tanzania where we studied the unique area surrounding Ol Doinyo Lengai, with the ultimate aim of climbing to the summit of this active volcano. Ol Doinyo Lengai, known to the local Maasai as the 'Mountain of God' is the world's only active carbonatite volcano meaning that the lava it erupts has a very different composition to your normal basaltic lava, and it erupts at a much lower temperature (around 500°C). Our team consisted of thirteen earth science and geography students accompanied by two lecturers with expertise in volcanology and structural geology. We set out to study the geology of the area surrounding Ol Doinyo Lengai in collaboration with students from the universities of Dodoma (UDOM) and Dar es Salaam (UDSM). In doing so we would interact closely with the local community. We would finish the expedition by completing the challenging climb to the summit of the volcano. For most of us it was our first time in Africa and while the expedition had its challenges, it provided us with a unique, and once in a lifetime experience.

After a long journey through Dar es Salaam to Dodoma and a good nights sleep, we visited UDOM where we met with senior staff and some students. Our lecturers gave talks on the history of Volcanology in Scotland, and the structure & tectonics of the East African rift. We had the opportunity to have lunch with and spend some time with the students as they showed us around UDOM's vast, modern campus. Having time to talk casually with our contemporaries, we were able to find out their perspective of studying geology in such a different physical setting to Scotland and such a new university (it's just 5 years old) compared to Glasgow University, and seeing that even with such a distance between us, everyone goes through the same feelings and ultimately hold similar aspirations and dreams. Students, regardless of where they are in the world, are not so different after all. We were extremely lucky that through our collaboration with UDOM, we were joined for the next stage in our journey, our fieldwork and climb of Ol Doinyo Lengai, by a UDOM staff member and postgraduate student.



After a 19-hour drive we arrived at Engare Sero, our basecamp for the duration of the fieldwork. The main objective of the fieldwork was to study the volcanic-tectonic interactions of the Lake Natron Basin in the Gregory Rift. We used a combination of mapping, logging of pyroclastics and structural interpretation to complete this task. With students from all levels in the team, everyone had the opportunity to learn new skills and see some very unique geological features. After thirteen days of fieldwork and interpretation we were able to make conclusions about the volcanic-tectonic interactions of the area. The fieldwork provided the perfect opportunity for us to learn techniques that would not typically be taught within our degree programme and observe geological features and landscapes that differ substantially from those in Scotland.



The biggest challenge of the trip, both physical and mental, was climbing Ol Doinyo Lengai. We began our ascent at 9pm at night, as daytime temperatures are too hot for such a physically demanding climb. Our first hurdle came before we had even started the climb, as the bus was unable to get us to the starting point adding an unanticipated 30-minute walk to the starting point. The first couple of hours of the trek were relatively easy as we walked along the gentle slopes at the base of the volcano. However, gradually the gradient began to steepen and the ground became increasingly challenging to walk on with a path of predominantly ash and scree. The final few hours of the climb saw us scrambling up 40-50° slopes which varied between soft ash, scree and very soapy carbonatite rocks. Our original plan was to reach the summit in time to watch the sunrise; however only a lucky few team members managed this while the rest of us steadily finished our ascent with the whole team being reunited at the edge of the main crater at an impressive 2890m. After the initial elation and emotion of reaching the summit we were greeted by the sights and sound of a splatter eruption, something that none of us would ever have imagined we would get to witness. After a well deserved lunch and a quick nap at the summit we began our descent, which on Ol Doinyo Lengai is known to be the hardest part. Steep slopes, loose rocks and scorching daytime temperatures made for an interesting and perilous trek home but finally, 19 hours after we left, the team arrived at the bus that would take us back to camp.



Sadly our time in Engare Sero was up. We spent the final day with our amazing hosts, swimming in waterfalls, visiting Lake Natron and having the Masai honor of having a goat sacrificed for us for our last meal. We packed up the bus and headed out on the long journey back to Dodoma and Dar Es Salam.

Our final engagement in Tanzania was at UDSM where both staff and student team members gave a presentation to members of the Geology department about our expedition and findings. Like at UDOM, we were able to speak and share lunch with the UDSM students, again sharing experiences which though occurred on different hemispheres, were always relatable and familiar. Our interactions with both UDOM and UDSM showed us how the study of geology and earth sciences, in particular the practical fieldwork elements, allow you to create strong relationships, and be it through bonding over battling the elements (whether torrential wind and rain in Scotland or intense heat and lack of shade in Tanzania) or learning new skills, these shared experiences create global communities of likeminded people and we hope that through continuing our collaborations with the Tanzanian universities that more students in the future will be able to take part in the GU Tanzania Expedition and experience this invaluable exchange of not only knowledge but also culture and friendship.