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1 EXPEDITION SUMMARY

For any climber looking to do challenging, alpine style multipitch, pilgrimage to the Rätikon mountain range is a must. Situated at the borderlands between Austria, Liechtenstein, and Switzerland, the region is saturated with world class climbing. Routes are famous for being exposed and isolated, with large run outs and long walk-ins. After dreaming of tip-toeing up the massive wall of the Kirchlispitzen for the past four years, in summer 2015, with the support of Imperial college Exploration board we finally set off for that soaring limestone face.

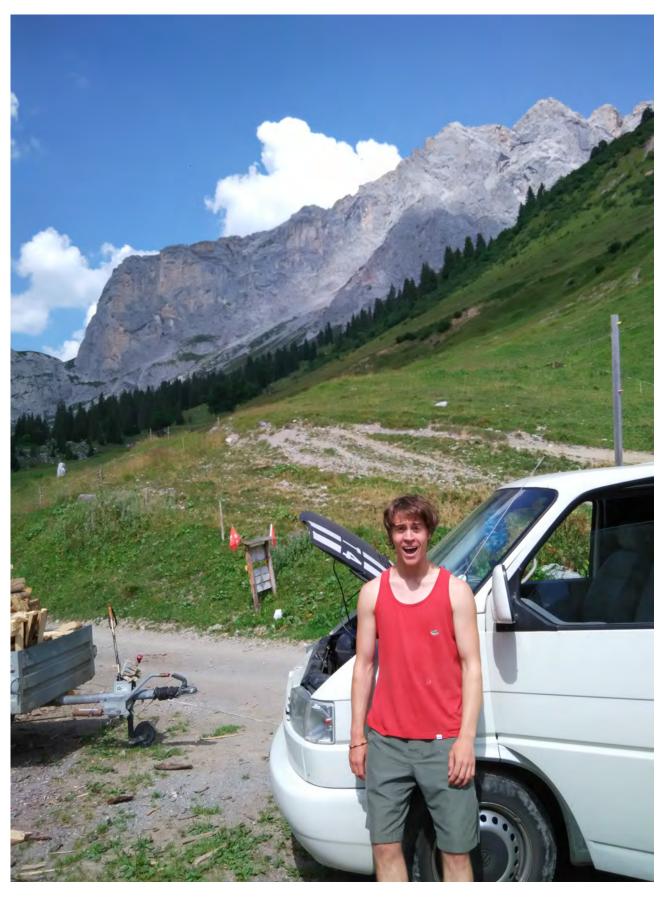
The Rätikon was everything we hoped for and more. Crazily technical climbing on stunning rock terrified and thrilled us in equal measure. However, heartbreakingly, we never made it to the Kirchlispitzen. Our van had major problems just 500m before reaching the base camp area for the climbs. Unable to go on and unable to leave the van blocking the road we were forced to retreat back down to the valley, and, after much deliberation we fled to the flatland of the Frankenjura forest in Germany, climbing there for the rest of the trip.

2 AIMS

AIMS LISTED IN OUR PROPOSAL

- 1. Complete as many multipitch climbs as possible, culminating in an ascent of the classic route Amarcord (7b+) on the 7th Kirchlispitz
- 2. Develop a foundation for more challenging endeavours in future through gaining experience in:
 - (a) Multipitch rope systems; including hauling and line fixing
 - (b) Mountainous navigation
 - (c) Logistical planning; "fast and light" approach vs. "siege tactics"
 - (d) Developing a feel for mountain-style route climbing
- 3. Raise awareness of possibility of funding from exploration board and inspire future students through reports and photography from the expedition
- 4. Learn and refine skills which can be passed on to other members of the college

We went to the Rätikon with the aim of gaining experience, and moving closer to the long term goal of opening an ambitious multipitch route of our own. Due to the unexpected change in circumstances we were not able to build up the close familiarity with alpine routes that we wanted to. Having said that, I think we did gain new insights and, as a result, are certainly much more prepared for future routes.



As close as we actually got to the kirchlispitzen

For example, we gained first hand experience of hauling. Neither of us had used proper hauling systems before, we come away from the expedition with a better understanding of what is possible. In addition, we greatly improved our climbing technique and physical strength. The rock in the Rätikon, and the type of movement required, was new to us and helped push our footwork and balance to the next level; the powerful routes in Frankenjura helped us improve our dynamism, coordination, and brute force.

One key aspect of climbing is the mental side, feeling relaxed and comfortable on routes is arguably far more important than having strong fingers. Having to deal with the huge runouts and mind bending exposure in Switzerland is sure to have extended our comfort zone, and makes us more able to push ourselves when next attempting similar routes.

A major aim of the expedition was to publicise the exploration board. Through word of mouth, this report, and sharing the extensive footage we took I feel we will accomplish this. In terms of footage, one unexpected outcome of the expedition was that we learnt and developed several different techniques for filming on the wall. While in the Frankenjura we were free from the time pressures of climbing a large route and so could experiment with our recording equipment.

3 LOGISTICS

3.1 Transport and Accommodation

We drove to Switzerland in Elliot's van ("Vera"), crossing the channel by ferry from Dover to Calais. Vera is a Volkswagen Transporter 4, and we were both insured to drive her. T4s are known for their build quality and reliability and enjoy a massive cult following. Unfortunately, on this occasion it was the van which let us down. A few days after arriving and climbing in Switzerland, we burnt out the clutch of the van whilst driving up a steep corner, on the road/track to get up to the climbers hut. This was due to a combination of bad luck, lack of experience driving up extremely steep hills, and maybe also from following the advice of locals to try reversing up the corner (looking back we think this did a large part of the damage). Vera runs well and is in good condition, but in hindsight a slightly newer van or 4x4 would probably have been needed to get up the corner. We had known the road up to the hut was bad, but those we had talked to before the trip only emphasised the sheer drops and terrifying nature of the road, no one seemed to have any trouble actually getting up, and, up until that one fatal turn in the road neither did we.

For accommodation we slept in the back of the van, staying in a car park in Switzerland, and various lay-bys in Frankenjura. The van is converted to a camper, with built in cupboards and a "rock-and-roll bed" (seats that fold down to make a double bed).

3.2 Equipment

EQUIPMENT LIST

Equipment list:

- Full trad rack nuts, cams, hexes, etc.
- Several slings and lots of screwgates
- Quickdraws; including alpine-style extenders
- Petzl 'Reverso' belay plates; for easier and safer belay of the second
- Single ropes [for climbing]; inc. spare
- Double (Half) ropes [for climbing]; inc. spare
- Static ropes [for jugging/fixing/hauling]; inc. spare
- Tag line
- Auto-locking Pulley (Petzl 'Microtraxion'); for hauling
- Waterproof clothing
- Insulative clothing
- Lightweight approach shoes
- Small Haul Bag (Black Diamond 'Stubby')
- Mountain first aid kit, customised by us to include everything available and useful to us
- Headtorch
- Reflective items and whistle for help attracting attention in an emergency. International distress signal is 6 blasts on the whistle
- BMC accident forms to help in an emergency
- 2x GoPro camera and tripod
- Jetboil stove and gas canister
- Helmet

I feel we had all the equipment we needed and can't think of anything else we would have

wanted. Two way radios might have been helpful, however we found communication on all our routes pretty straightforward - we could always hear each others shouts. We did take a massive static rope but never got round to fixing lines, and hauled on the tag line not a static rope. This worked well as we were not hauling much. Elliot had left his clip stick in the van and this came in handy in Germany.

Elliot stupidly forgot both his helmet, as he didn't realise he'd taken it out of the van. We had planned to buy another helmet, but left Switzerland before we found a shop, we felt it was perfectly safe to climb without helmets in Frankenjura, as is customary due to the high quality and well travelled nature of the limestone there making rockfall very rare.

For guidebooks we used "Rätikon Süd", which has highly detailed hand drawn topos and removable topo cards. In Frankenjura we bought a summary guidebook "Frankenjura extreme" which has a selection of routes. Both areas use the UIAA grading system, I have written the equivalent French grade alongside the UIAA grade in this report.

3.3 Food

We bought all our food in Lidl before we left and had more than enough for the entire trip. We did buy several loves of bread and some pastries in the excellent bakery in Frankenjura.

3.4 Weather

The weather in the alps is famously unpredictable and the Ratikon is no exception. Thus, it is vital to check the forecast often and er on the side of caution when making decisions based on the weather. Being 100s of metres off the ground during a storm would be extremely serious. Thankfully, the weather was dry for the majority of the trip, only raining for the last three days. It was extremely hot in Frankenjura, not ideal as the rock becomes more slippery and slimy. However, conditions whilst in Switzerland were perfect. We did retreat part way up one route because we felt precipitation looked possible (as a pilot Elliot has good knowledge of cloud formations etc), but it did not actually rain.

4 THE TEAM

4.1 Expedition members

4.1.1 Amar Nanda (21): 2nd year medical student

Since the opening of Reading climbing centre in November 2010 Amar has been obsessed with climbing. He has done all he can to climb as much as possible and hone his ability, in hopes to one day achieve his ambitions of opening new adventurous routes around the world. He climbs indoors, 4-5 times a week, and on rock whenever he is able. An active member of Imperial



Other than non-stop rain the last three days we had clear skies and sweltering temperatures throughout

college mountaineering club, he has been on numerous trips during the academic year, and the 2013 and 2014 'summer tours' to Siurana (Spain) and Verdon (France) respectively.

Including having climbed comprehensively in the UK (Peak District, North and South Wales, Dorset, Avon and Cheddar Gorge, Symonds Yat, etc.), and in remote sea-cliff destinations such as Lundy and Pembroke, Amar's international experience is extensive. To name but a few of these destinations: Ötztal (Austria), Costa Blanca (Spain), Chamonix (France), Fontainebleau (France).

Outside of mountaineering, Amar is a keen cyclist. His experience extends beyond commuting solely by pedal power within London. In 2013, when living and working in Austria, he cycled a minimum of 100 km a week, with the addition of individual rides up to 140km.

Climbing ability Regularly onsights sport 7b (both indoors and outdoors) and trad E3/4, with best onsight to date E4 6b. Climbed multipitch up to 7a sport and E4 trad.

Other mountaineering experience Ski mountaineering ascents of many peaks including Similaun (3.606 m), Finailspitze (3.514 m), Weißkugel (3.739 m), Hintere Schwärze (3.628m) Some limited experience on mixed routes up to AD

First aid training As an Austrian citizen Amar completed his 'Zivildienst' from September 2012 to June 2013. This involved working as a paramedic's assistant. For this he received extensive first aid training

Undertaken many first aid courses with St. John's ambulance and has volunteered at events as a St. John's first aider.

As a medical student, Amar is familiar with troubleshooting medical situations and with best practice.

4.1.2 Elliot White (21): Climbing route-setter

Whilst not a student at Imperial College, Elliot shares a close friendship with Amar, and is one of his most regular climbing partners. Having climbed and caved from a young age, Elliot is now a highly experienced and competent climber.

Through working in 'Reading Climbing Centre' (RCC) an instructor and route-setter, Elliot is familiar with ideal safety practice and has a plethora of well versed rope systems at his disposal, including "rescue systems".

In addition to having shared many an adventure with Amar, including a remote expedition to Lundy, Elliot possesses a wealth of climbing experience both domestically - in the UK, including as far as Northern Scotland - and internationally.

Climbing ability Onsight up to 7c sport and E4 trad, redpoint up to 8a+

4.2 Training and preparation

We both climb upwards of four times a week, and kept this up in the run-up to the expedition. We used fingerboarding and structured endurance sessions to try build our strength and fitness in readiness. Additionally, in the month leading up to our departure we spent a total of 14 days climbing around the UK. We specifically sought to do climbs that would prepare us best, trad routes in Swanage to ready us for the exposure, and multipitch trad and sport routes in Wintour's leap (the largest cliffs in Southern England) to practice ropework and build multipitch style endurance.

5 TRIP DIARY

Wednesday 5th August We woke up at 4:00 and drove off from Elliot's house to catch the ferry from Dover at 7:30. We were flashed by a speed camera on the M25 driving at 60mph into a 50mph roadworks zone. We tried to hope we had imagined it, but it seemed the trip was off to a bad start! Other than that we had an eventful and empty drive through France, and, after getting slightly off route around Zürich made our way into the Prättigau valley at around 10:30. Feeling worn out after a full day of driving we cruised around looked for somewhere to park up for the night. It was all pretty densely inhabited and we eventually settled the edge of a field on a corner leading up out of one of the villages. The road we were parked next to seemed nice and empty, and there were no cars in sight.

We rearranged the van into 'sleeping mode', put up the window blinds, and began rummaging around in the cupboards for a bite to eat. Suddenly, a car sped down the road next to us, it zoomed past the van, braked, reversed back up the hill towards us, blasted its horn then tore off back down towards the village. Worried we were parked on an angry farmer's land, we put Vera back into 'drive mode' and headed off to find somewhere elese to stay. Unable to spot anything good we decided to try driving up to Partnun, where we wanted to climb tomorrow, and try our luck there. On the way we stopped at a lay-by next to a ginormous pile of wood and passed the rest of the night uneventfully.

5.1 Gruobenfieber (7+/6c)

Thursday 6th August We woke up and drove the rest of the way to Partnun. You are not allowed to park in the village itself but there is a big parking before the village, about 20 minutes walk away. The parking area was full of campers, and even a motorhome. These were all clearly being used to sleep in. We joined the ranks of campers and decided to buy a 7 day ticket, due to the pricing structure of the tickets (7 days cost just over twice as much as buying 1 day) we felt this gave us the best value given that we planned to be in the area for a few days and may return later in the week. The parking machine accepted both Euros and Swiss francs but used an exchange rate from before Switzerland abandoned its policy of capping the franc to the euro, making it cheaper to pay in euros (we of course did this). All in all 7 days parking cost less than £10

We got our gear together and headed up to climb a route. We wanted an easy and short route so that we could get a gauge on what grading was like in the area, and see what the rock and the bolting was like. Routes on the Gruobenflüeli looked suitably short at around 150m long so we headed up towards the wall. The walk in took about 2.5 hours, was unbelievably picturesque, and exhaustingly steep in places. We walked up through Partnun village and past the beautiful glacial lake "Partnunsee". We were mobbed by butterflies all day who would swarm around us then land on any exposed skin and slowly turn round in circles as they padded their long, curled tongues everywhere in reach. It was really quite amazing, one's skin even felt slightly wet beneath their tongue!

After what seemed like forever, we reached the Gruobenflüeli and decided to go up Gruobenflieber, a five pitch 7+ (french grade 6c). Just off to the base of the climb was a huge cave, it went down into the mountain at about 30 degrees (so both the floor and the ceiling sloped down very steeply), and seemed to go on forever. We discussed the cave's resemblance to the back of a giant's mouth, and also what grade climbing through the cave's roof would get, then geared up and started climbing. We left our bags in the cave so our food wouldn't get hot. We took a small bottle of water with us but decided we didn't need anything else as the route was quite short, and there was an easy walk back down to where we stashed our bags.

The climb started with a 45m pitch graded 4 which had one shiny peg in the middle. it had



The massive cave on the side of the Gruobenflüeli

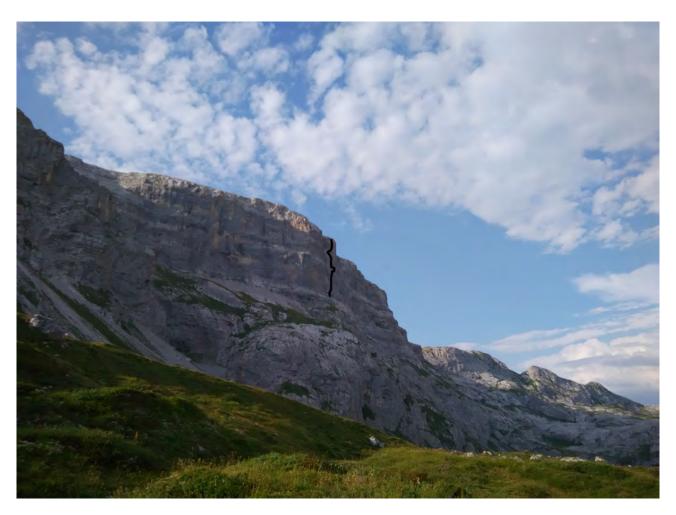


Gearing up at the base of the climb



View of the Partnun area

some surprisingly tentative climbing in it but was fine. Once at the belay the proper climbing got underway. It was stunning. The rock was completely pristine and crazily grippy, with handholds that were either tiny or non existant. Lack of holds presented surprisingly little problem, it was all relatively slabby and we basically placed our open palms against the rock and balanced our way up. Thankfully we both spend plenty of time messing around at crags by trying things no handed, so we were pretty familiar with the movement required. Bolting was sparse but safe (as proved when Amar slipped off one of the 7- (6a) pitches), and we didn't feel scared. Further up the wall handholds materialised in the formed of beautiful "Wasserrillen" (translates as water groves), sharp channels cut into the rock that you could pinch and which neatly fit the front of a shoe. We made it to the top, walked back down and after eating decided we were too worn out from driving to do another climb, and instead would save our energy for a bigger route the next day. We headed back down to the van, stopping to swim (or rather jump in and quickly run out again) in and drink from the glacial lake. It had been very hot all day and we hadn't taken as much water as we would have liked so we endeavoured to take 3I each in future. Arriving back at the car park while it was still light we chatted to the Swiss couple in the neighbouring camper and began cooking just as it was getting dark. While we were away an official had left a letter on the van windscreen informing us it was fine to camp in the car park (which had a port-a-loo, and was right next to a glacial stream) but we had to pay the Swiss tourism tax of 2 Francs per adult per day at the office in the nearby town within 24 hours. Our neighbours told us there was no need to rush and we should pay it when driving back down to the valley.



Miss Partnun

5.2 Miss Partnun (9-/7b+)

Friday 7th August We woke up at 6:00 and walked up to the base of the Gamstobelwand, this took about 2.5 hours and involved crossing a large section of horrendously steep and scary scree slopes. Amar was freaking out but Elliot seemed incredibly relaxed, apparently you had to "just go with the slide". The day was very hot and we had decided to haul to ensure we had plenty of water, especially given we were attempting a challenging climb. It was forecast to be sunny but with the potential of rainfall, however we decided we would still go ahead with the climb as it was possible to abseil down it (this was the method of descent advised by the guidebook), so we could retreat easily as soon as we saw rainclouds building. The climb was significantly harder than that we had attempted yesterday, however we decided it was safe to jump in at the deep end as the guidebook emphasised how well bolted it was (other than the second 6+/6a pitches where use of mobile protection was advised).

We decided to swing leads, with Amar going first so that Elliot would lead the crux pitch. The climbing was vertical to slightly slabby, and extremely tenuous. It required particularly intense focus, and one had to really hunt around for every the slightly better angled parts of the rock that could be used for foot placements. No position was completely secure, and it felt as



At the foot of the climb

though you could slip off at any second. Handholds were rubbish and there was an awful lot of wall-grabbing. One of the pitches was a magnificent 8/7a groove. Elliot was leading and at the crux move over a slight bulge he cranked down on a crystally spike of rock, leaving a hole in his left index finger. Apparently, there was no other option for handholds, so he simply placed his finger on the sharpest bit of rock and intentionally pushed it down into his finger! Amar was able to avoid sacrificing his skin and reached through to an undercut edge over the bulge (yay for being tall!). We both agreed the pitch was life changing, and Elliot said it might be the hardest he's ever had to try in rock climbing. The moves were not particularly difficult or strengthy, but we found the unwavering focus required particularly mentally draining, especially when coupled with the exposure (we were only about 60m off the base of the climb, but the ground fell away all the way back to the lake about 500m below).

Amar's second pitch was an 8-/6c+, which began with a ca. 4m no hands transverse above the ledge the belay was on. The first bolt was at the end of the traverse section. Really feeling the exposure after the terror of the scree slopes and the draining first half of the climb Amar didn't feel up to leading over to the first bolt. It wouldn't be dangerous to fall, however it would be a factor 2 fall onto the belay, and due to the position Amar would probably fall directly onto Elliot on the way down. Thus, after stroking the wall for quite some time in search of holds and after plenty of foot tapping Amar asked if Elliot would lead the pitch instead, and tentatively climbed back down to the belay. We had hauled up a set of cams, Elliot took these out of the bag and set off. He managed to get some cams in on the start of the traverse and tiptoed across, complaining about the irritatingly out-of-reach bolt placement. It was indeed beginning to seem as though Swiss climbers get some sort of kick out of putting the bolts just out of



Elliot on the crux pitch

reach of stable positions, and in the middle of hard sections.

So, making good time, we reached the 9-/7b+ crux pitch. Elliot had yet to fall off, although this pitch was 2 grades harder than any before it. We climbed with a tag line and hauled the bag up on the tag line using a microtraxion, this worked really well and we quenched our thirst in preparation for the pitch. It traversed out rightwards from the belay and headed straight up a steep wall, and out of sight. Elliot got about 2/3 of the way up the pitch, was looking increasingly desperate and then fell off jumping for an out-of-reach hold from an awkward position. He somehow spun around while falling and plummeted down facing out from the wall. Luckily he remained upright and his rather unusual fall was arrested safely by ICMC's (Imperial College mountaineering club) lovely, stretchy ropes. He climbed back up, and, after a couple more attempts at a dynamic snatchy move for the next hold made it to the next bolt, where he rested on the rope.

At this point, Amar shouted up that it was beginning to get more cloudy. Elliot agreed and we decided to retreat as we still had 3 pitches to go and really didn't want to get caught out in the rain. We abseiled down and walked off uneventfully, galloping across the scree slopes (clearly all capacity for fear had been exhausted for the day). In the end it didn't rain and we spent the afternoon by the lake, arriving back at the van as it got dark. The day had gone pretty well, we decided all our systems worked properly and that we could try more well-bolted 9-s in future, but the for bold climbs we should stick to around 8+ at the very most. I feel we did the right thing going down, the clouds were definitely developing rain clouds (Elliot has good knowledge of meteorology and explained all about clouds, and what was worrying about those particular clouds on the walk down) and it would have been undesirable to have to cross the



Abseilling back down the 7a pitch

scree slopes while they were wet.

5.3 Grüscher Älpi

Saturday 8th August Our alarm rang at 5:30. We planned to the huge 11-pitch super classic up the Schijenwand, by far the most impressive looking wall in the Partnun region (the cover photo for this report), the moment we laid eyes on the triangular crest of the clean, yellow tinged wall we knew we wanted to climb it. However, feeling extremely groggy and achy we decided today might not be the best day to try a long, traditionally bolted route, and instead decided to be lazy, lie in, and go for a much shorter objective, allowing us to feel rested and try the face the next day.

We woke again about 3 hours later, feeling better rested but still very worn out from the previous day. Not fancying the two and a half hour walk in, and worried about our already sore skin (especially Elliot's savaged index fingers) we decided to take a full rest day, driving over to the main climbing area of Grüscher Älpi and working out a route for Sunday. We drove down to the valley, stopping to pay the tourism tax and get diesel then headed up to the village of Schuders. From Schuders a gravel track leads up 8km to the car park of the climbers hut. We had read on blogs that the road up was terrifying, and one friend of mine described it as a harrowing experience scarier than the E6 he had climbed (he had driven up it after several days of heavy rain though)! Still, we had seen many pictures of vans larger than Vera up at the hut, as well as tiny Citroens so knew a 4x4 wasn't required and thought the road would be very narrow with a sheer drop, but easily drivable. This estimation turned out to be largely right, the

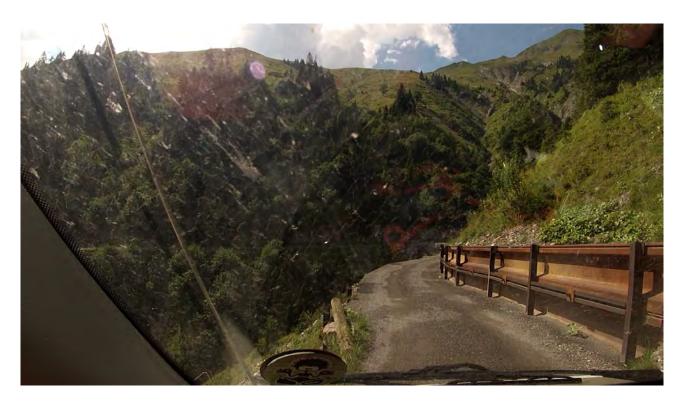


Amar pointing vaguely in the direction of the climb

road teetered along the side of the mountains, climbing slowly. It was relatively good gravel and not particularly steep, but did pass over several ramshackle bridges and supports, effectively tree trunks precariously balanced across steep scree slopes with dusty gravel poured on top. Thankfully, we didn't meet any cars coming down and after about 40 minutes the track moved away from the edge and into a field. I unclenched my teeth and stopped trying to crush the passenger side door handle, we had made it! Or so we thought...

The trail snaked up towards an 'Alm' (where farmers live and look after livestock sent up into the mountains over summer), then made a sharp left turn and disappeared over a steep hill. Towering behind this all we could now see the faces we had come to climb. A gargantuan grey ribbon stretched far across the horizon, much bigger than anything we could have imagined. Sheer limestone on this scale was totally new to us, it looked as though someone had taken one side of the Verdon gorge, plonked it on the crest of a mountain, then doubled its height. Needless to say, we were speechless, and, for once, didn't immediately start discussing where the best lines up the newly spotted rock would be.

By this point we had reached the bend in the road. The road leading into the corner was quite flat and basically turned onto a sharp incline. From close up one could see how steep it was, however we didn't think much of it, that is, until the wheels started to spin through. Elliot eased up on the gas and let the van roll back down to the bottom of the hill. He then reengaged the clutched and we moved on upwards. The van screamed, rocks went flying, and the smell of burning rubber filled the air. We rolled down again. We got out of the van and tried to spot the best line to follow. The road here was very dusty and had many loose rocks of II shapes



The road up to the hut

and sizes, we decided we were best off on the inside of the corner. This was steeper, but the ground seemed firmer, so making it less likely the wheels would spin through. Elliot reversed the van back around the car so he could build up some momentum then went for it. The van raced up the hill, lurching around like a drunk climbing stairs. It all looked great, then the front left wheel rammed into the side of a large rock embedded in the tack. The wheel pitched up then spun through flinging dust into the air.

We retreated back around the corner. By now the van was starting to smell strongly of burning clutch and larger rocks on the road were streaked with black from burning rubber. There were some Swiss outside the Alm so we asked them for advice on driving up the hill. They suggested we try it in reverse, as this has more power. We decided to try again then use reverse as a last resort so we wouldn't have to reverse the rest of the way up to the hut. We cleared out any large rocks that were in the way and planned where we would drive then Elliot went for it. This time he got slightly higher again, about 2m away from the solid ground on he last section of the hill, before the wheels spun and the van drifted sideways back down. We decided to go for reverse. Elliot turned the van around moved smoothly up the bottom of he hill. Around halfway the wheels spun a bit and the van slid down, but he reved it higher and it kept going up the hill. However it was all to no avail, the front wheels reached a smooth rock and spun through, leaving a thick band of black rubber. At this point, thick white smoke started pouring out of the bonnet. Elliot stopped and let the van roll back the hill, parking it off the side of the road, where it forked towards the Alm. We opened the bonnet and were hit by a wave of heat, it also really stunk. We initially wanted to wait half an hour for the engine to cool, then try again, but after mulling it over decided it would be so bad if we were to break down miles up a



Van problems trying to get to the hut

mountain that we should play it safe and instead head back down to the village and work something else out. We didn't think we could just park at the Alm and sleep in the van, especially as one of the Swiss farmers had already shouted over to us that we were blocking the road. We also couldn't park somewhere else along the track as it was too narrow for another car to get past, and the few tiny laybys were desperately needed as crossing points.

While waiting for the engine to cool so we could head back down the road we saw a 4x4 cruise up the hill, and, depressingly, a smart car. The car drove right on the outside of the corner, with one wheel up on the bank of grass, clearly this was the way to go. When we finally got back in the car and fired up the engine we quickly realised the clutch had been severely damaged. The van would start on the flat but was very juddery and moved slowly, once moving, in third gear and above it drove fine. Trying the outside of the corner was clearly not an option so we drove back down the death road to the valley.

Unable to climb in our chosen destination and not wanting to risk having to do a hill start (we definitely wouldn't have been able to start on a hill) on the steep road back up to Partnun we were at a total loss what to do. Elliot rang his Dad, who has extenslive experience fixing cars. The verdict was that the van was probably safe to drive, we just shouldn't go anywhere hilly and risk being unable to start again if we had to stop on an incline. The surface of the clutch was likely worn smooth but would roughen up again with the action of driving, it probably didn't need to be replaced but rather had simply had its lifespan shortened. Hearing this we decided



Our view of the Kirchlispitzen at the corner that defeated us

we would head to Austria. Amar knew of several large cliffs where the drive in was flat, we could climb there and potentially return to Switzerland if the clutch improved. We thought it was likely we'd find any other multipitch cliffs in the region that didn't require driving up steep roads to get to them. We proceeded to drive towards Tirol in Austria, but unfortunately, the tunnel to get there was closed forcing traffic over a mountain pass. This wasn't an option for us so after 2 hours driving we stopped at the foot of the mountain pass and decided to turn around. Instead of Austria we would go to Frankenjura, the world-famous sport climbing destination in the heart of Germany, a huge forest full of massive rocks, and crucially, no steep mountains!

5.4 Frankenjura

Sunday 9th August - Tuesday 18th August We arrived in Frankenjura early Sunday morning, after sleeping in the van in motorway services. We spent the rest of the trip climbing there whilst the clutch of the van slowly improved. We staunchly avoided any hills and had a fantastic time climbing all around the forest. It was heartbreaking to have been so close to the Kirchlispitzen and yet not climb on them, but the stunning routes in Frankenjura were good consolation. The climbing was the exact opposite of that in the Rätikon. Raw power was the key ingredient, we found ourselves hanging footless from 2-finger pockets and traversing massive roofs. It was extremely hot and then rained the last two days. We climbed every day, including in caves when it rained. The climbing was truly exceptional, with an outrageously large selection of routes of all types. Our time there was pretty uneventful. Everything went well,



The mountain pass which thwarted our last-ditch attempt to get to alpine climbing

even the drive up the ramp into the ferry - something we had been dreading all week! We got home on Tuesday evening feeling very worn out.

6 FINANCES

In total I spent £400.66. This is way under budget as we were unable to reach the climber's hut in Switzerland and so didn't have to pay to stay there. Our major expenditures were transport (£542.01 between the two of us) and food (I spent just under £80). We only spent £15.42 total on accommodation - this was the price of parking in Switzerland and of the CHF2 tax tourists have to pay for each day in Switzerland. The exploration board are funding half of my expenditure.

Breakdown of transportation costs		
Diesel	£227.31	
Tolls	£52.70	
Ferry	£186.00	
Cost of insuring Amar to drive the van	£76.00	
Total	542.00	



Steep climbing in Frankenjura

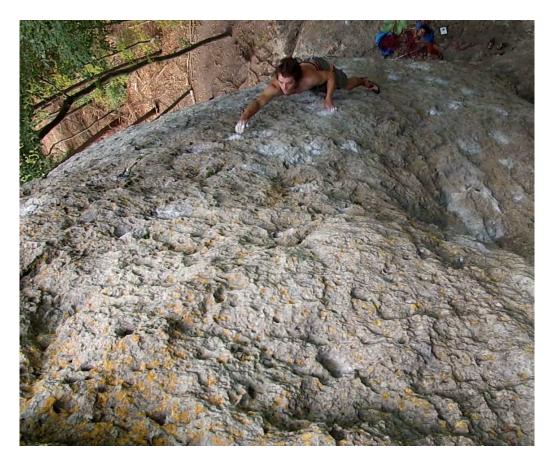


Escaping the heat in shady forest crags



Elliot pulling hard

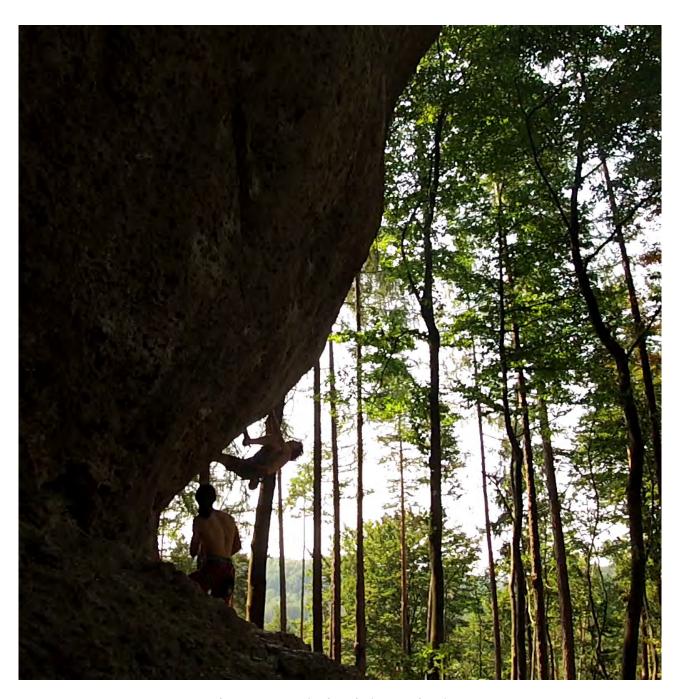
22



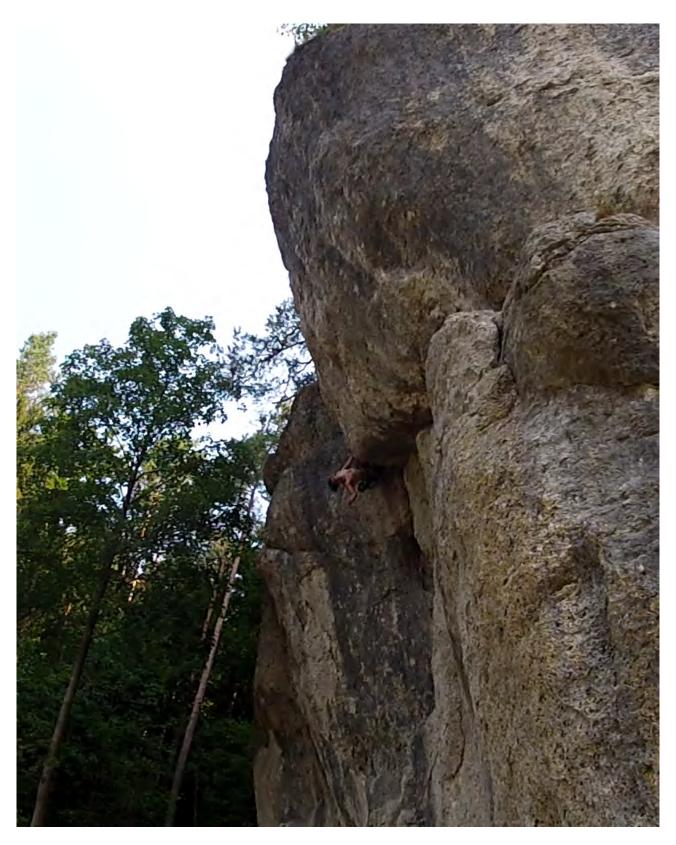
The rock is covered in distinctive pockets and dishes



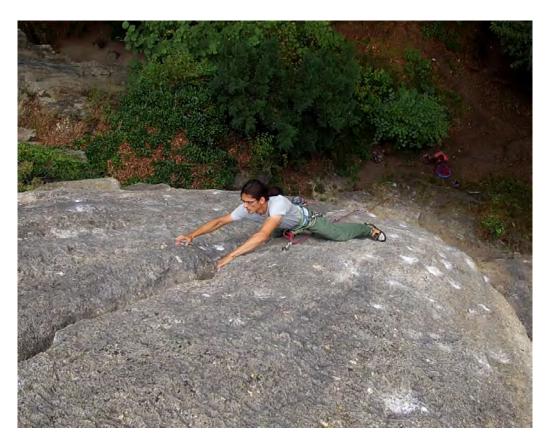
Amar sneaks in a heel hook



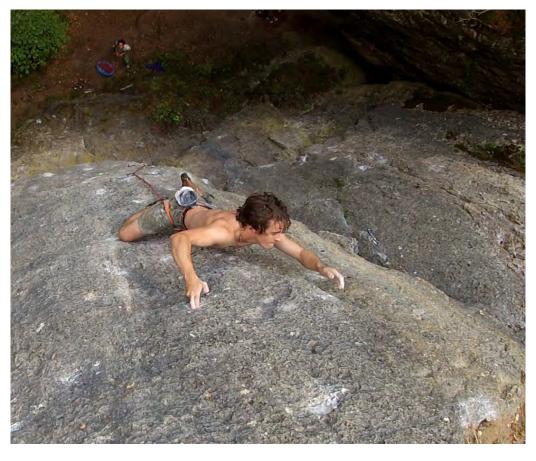
The stereotypical style in Frankenjura



Amar in the kneebar of the superclassic "Fight Gravity"



There was even some crack climbing!



Two finger pockets were the name of the game $\,$



Escaping the rain in one of the many caves

7 LEGACY

Whilst I did not gain anywhere near as much experience on big mountain routes as I had planned, I feel the expedition was still an invaluable learning experience and will enable me to realise other aims in future. I feel our time in Switzerland proved that we have the skills and knowledge required to undertake challenging multipitch routes, and it is now mainly a matter of continuing to build the confidence to climb well when on such routes. In future we hope to move more towards opening our own routes. I think we are still a way from being able to open a demanding multipitch route but would be able to open fantastic new single pitch lines, both in trad, and, once having properly learnt to place bolts, in the sport climbing style. Having now seen the bolting style in both the Rätikon and in Frankenjura (glue-ins which are at times very spaced), we are now better placed to judge how a line should best be established.

However, I think the main way we have benefited from the expedition is through the improvement in our actual climbing technique and strenth. The rock types were very different and new to us and have I feel the challenge of climbing them has really helped to boost our level. This is sure to be of great importance in any future endeavours.

Hopefully, as well as benefiting ourselves, our experiences on the expedition will benefit others, and especially other members of the college in future. I will be a student of the college for another four years, so will have plenty of opportunity to share knowledge with my fellow students, potentially inspiring them to undertake expeditions themselves (albeit ones where

they actually get to climb in their chosen destination!).

8 ACKNOWLEDGEMENTS

Many thanks to Imperial college exploration board for supporting this expedition. Thanks also go to Michael Chan for helping to write the expedition proposal, it was a shame he couldn't come himself.