

**The Oxbridge Society of Hong Kong Scholarship Grants 2008/2009**

**6-week Geology Research Project in Bonassola, Liguria, Northern Italy**

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My 6-week independent mapping project over the summer was most certainly exciting, challenging, and memorable. I was fortunate enough to be able to have a glimpse at such



special geological feature. Here hot magma extruded to the ocean floor during Jurassic solidified immediately, and were then pushed up to the surface by compressive plate movements, that is, the well-known closure of Tethys Ocean started in Late Cretaceous, that this feature called the ophiolite sequence is of unique lithology across Europe.

**Our group: me, Sean, Daniel, Sophie and**

**Daniel.**

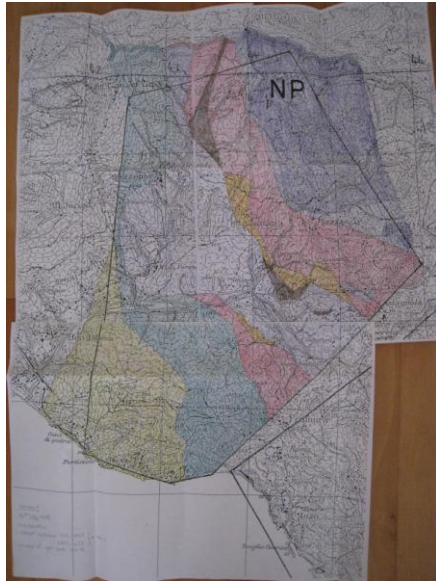
Over the 6 weeks our team were out in the field 9am to 7pm daily on average, depending on distance from the campsite. Every evening following dinner was writing up of each day's work, copying up maps, and solving unexplainable features whilst in the field. Under this schedule our team managed to achieve our foremost aim efficiently: to draw out an accurate geological profile of the whole 15km<sup>2</sup> area in 24 days.



**The western wing, where writing up were done (i.e. girls' room)**

Seven lithological units were found and distinguished in the field, starting from the ocean floor: Serpentinite, Ophicalcite, Chert, Gabbro, Limestone, Mudstone and Sandstone. Their origin varies greatly from 1000s of metres down the water column to few 10s at shallow depth. Every unit has certain degree of lateral variation; among all limestone and mudstone have the greatest. Surprisingly, the sequence found was of slight difference to a theoretical example; pillow basalts unique to ophiolite sequence were no where to be seen. Hence further detailed investigation would be required off thin-sections extracted from hand specimens,

studied under petrographic microscope. Moreover the common marine origin gives possibility for micro-fossils which can not be found unless under the microscope.



**The 7 lithological units of the area (yellow: Sandstone, green: Mudstone, red: Limestone, blue: Serpentinite, brown: Opicalcite, orange: Chert, purple: Gabbro) Scale: 1:25,000**

The twenty-four days in the field was truly a valuable experience. The three of us compromise whilst working in the field, change routes swiftly while things were not as expected, e.g. weather. We had our own opinions and work, but we share the route, and spare our hands when needed. We did not use the rented GPS at the end relied completely on our map reading skills. However getting lost was still unavoidable occasionally and survival skills came in handy.

Sharing with friends for 6 weeks away from home was not easy at all. Living in the bungalow turned out to be experiencing ‘Survivor’ plus ‘Big Brother’! It was not perhaps surprising that Oxford’s famous ‘5<sup>th</sup>-week blue’, without any physical boundary, came to all of us in the middle of the trip. For me this is at all nothing similar to any team work experience before. Yet on the bright side, my cooking skill improved a lot alongside others, a few traditional British dishes is not a hassle any more!



**Kitchen, living room, TV lounge, Boys’ room, general storage**

I would like to take this opportunity to thank The Oxford and Cambridge Society of Hong

Kong, for their generosity in supporting my mapping project. With the scholarship I was able to equip with better kits, for example survival blankets, candles and specially-made food tins. Without any financial burden it gives the motivation and provides the incentive for me to do my very best in the project.



**Our bungalow (B8) in Villaggio Camping Valdeiva in Deiva Marina, Liguria, Italy**