Geological Mapping of the Iglesiente-Sulcis region of south-western Sardinia

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Short report

Over the summer 2016, we spent 6 weeks in the Iglesiente-Sulcis region of south-western Sardinia, Italy. We explored the geology around the coastal villages of Nebida and Masua which is an old mining region. The abandoned mines created vast cuts in to the rocks as well as numerous steep and unstable scree slopes!

The overall area was formed of 8 separate mappable units and two unconformities with ages ranging from Cambrian all the way through to modern sediment. It is thought that these units represent large changes in relative sea level with evidence of sub-aerial, deep and shallow marine environments. There were also some complex metamorphic fabrics in the older rocks, resulting in shiny rock surfaces due to large layers of mica.

We stayed locally in Nebida, allowing us to walk to our mapping area or hop on the local bus to reach the furthest areas. Walking was very enjoyable, albeit hot, until you got attacked by the sharp branches of the bushes or ended up in a standoff with a giant cactus! It seemed that the vegetation was the most challenging wildlife. The domestic goats, thousands of lizards and odd bunny rabbit were the only other contenders, and always provided more entertainment than threat!

Nebida was described by a popular travel guide book as a “drab village” and proved contrary to our experience! Our stay overlapped with Nebida’s Santa Barbara festival which included a rock concert in the tiny village square, much like Glastonbury! We also ate at some local restaurants and had amazing pizza and seafood, once we had translated the menu.

Overall, the trip was an amazing experience and adventure. We all now have more confidence in our mapping abilities and ourselves. We would like to thank class of 2005 for their generosity and funding; we are very grateful for their support.
Figure 1: Evidence of folding in slate. Yellow lines indicated bedding and foliation direction. Blue dashed lines indicate fold axial planes.

Figure 2: The view looking north along the coast from Nebida towards Masua from an old mine.
Figure 3: The view from the top of the limestone hills looking north towards Masua celebrating the last day of mapping!

Figure 4: Outcrop of modern sandstone showing truncation of beds and cross bedding