

# Geostudies



## **Summary guide to Geostudies Geology Courses and Field Trips 2017-2018**

For full details see the Geostudies Website (<http://www.geostudies.co.uk>), or contact Dave Green.

### **September 2017**

#### **“The Shaping of Ross: the Forces of Change through 700 million years of geological time”**

Concentrating on the processes that have produced the environment in which we now live, this course aims to aid understanding of geological forces, such as volcanoes, earthquakes, glaciers, rivers, deserts, continental drift, life, convection, water. The course will be illustrated by reference to the local area, where possible. There will be lots of opportunity for practical study of rock, mineral and fossil, both actual specimens and as thin sections through petrological microscopes. Reference will also be made to local geological maps. Starts 21<sup>st</sup> September 6.30pm Held at 6<sup>th</sup> form and adult education centre John Kyrle High School, Ross on Wye. Cost £50. Contact Paul Mason on 01989 760399. Enrol before 15<sup>th</sup> September to ensure that the course runs.

**The Devonian Period** 419 to 358 million years ago, this period (whose existence was hotly disputed by Sedgwick and Murchison in the 1820s and 30s) saw the amalgamation of two parts of Britain (but strangely not including Devon!), the emergence of widespread land vegetation, closely followed by insects and terrestrial tetrapods. A major extinction, of disputed origin, wiped out a large proportion of life towards the end of the period. Half the world consisted of a vast ocean (Panthalassa), which, like the modern Pacific, was gradually being destroyed by subduction, in favour of the Rheic and PalaeoTethyan Oceans. Starts Mon 18<sup>th</sup> September for 10 weeks (not 16<sup>th</sup> or 23<sup>rd</sup> Oct), until 4<sup>th</sup> December Held at Wynstones School, Stroud Road, Whaddon, Gloucester from 7.30-9.30pm on Mondays. Cost £70 (including tea, coffee etc at breaktime!).

### **December 2017**

**Field Course: The Devonian Geology of Devon** A long weekend course (1<sup>st</sup>-4<sup>th</sup> December) to examine the record left in the “type” area. Hopefully we will visit both north and south Devon (and maybe stray into Cornwall) to look at evidence for environmental conditions and change, so different to the Old Red Sandstone continent lying to the north of what is now the Bristol Channel.

**18<sup>th</sup> (Monday) Annual Geological Reunion Dinner** at Watersmeet, Hartpury 7.30 for 8.00pm

### **January 2018**

**The Geology of Norway (and Scandinavia)** Scandinavia forms a large part of the ancient continent of Baltica. Although once extensively covered by Phanerozoic rocks, these have been largely eroded apart from those preserved in downfaulted graben (as in the North Sea and Oslo) and upthrust nappes, pushed onto Baltica during the violent collision with Laurentia in the Caledonian Orogeny at the end of the Silurian. Otherwise, Scandinavia is composed of PreCambrian rocks (mainly igneous and metamorphic) accreted to Baltica during its formation, from 3500 to 900 million years ago. The course aims to introduce you to this long and fascinating history. Monday 8<sup>th</sup> for 10 weeks (not 12<sup>th</sup> or 19<sup>th</sup> Feb) until 26<sup>th</sup> March. Held at Wynstones School, Stroud Road, Whaddon, Gloucester from 7.30-9.30pm on Mondays. Cost £70

**Mountain Building**. This 10 week course aims to introduce you to the geological processes that produce mountains, mainly by the study of different examples, both past (e.g. the Caledonian and Variscan belts) and present (e.g. the Alps and Andes). This includes the classic collisional orogenies, such as the Himalayas, Urals and Pyrenees; the accretionary orogenies, such as Taiwan, the Southern Uplands and the Andes; but also mountain ranges produced by very different tectonic forces, such as the East African Highlands, the Cantabrian Range and the Scottish Highlands. Held at The Chantry, Thornbury. First meeting 7.30 – 9.30, Thurs 11<sup>th</sup> January until March 22<sup>nd</sup> (not Thurs 15<sup>th</sup> Feb) in the ?TBA Room. Cost £75

### **February 2018**

**Field Course: The Geology of Almeida, SE Spain** Dates will be for a week to 10 days trip around a period from Fri 9<sup>th</sup> to Monday 19<sup>th</sup>. This is a classic region of European geology, exposing metamorphic and igneous Variscan basement, covered by Mesozoic and Palaeogene sediments, that have been thrust from the south to form the Betic Corillera, due to collision between Africa and Europe. From the Neogene to the present, collision has been replaced by strike-slip along the Trans-Alboran shear zone, transporting extensive submarine igneous rocks from the east and producing a “basin and range” topography, in which Neogene sediments accumulated, firstly marine and later terrestrial, in a wide variety of environments. These rocks are spectacularly exposed in a landscape that is as near desert as it gets in Europe. LET ME KNOW BEFORE CHRISTMAS IF YOU WANT TO COME to take advantage of cheaper air fares

### **April 2018**

**Planetary Geology**. Monday 16<sup>th</sup> April, for 10 weeks, until 9<sup>th</sup> July (not 7<sup>th</sup> nor 28<sup>th</sup> May). The state of knowledge of the planets of the solar system has improved vastly in the past 40 years as a result of space missions and improved technology for observation and analysis. The course will examine the results of this activity and evidence for these interpretations in terms of the internal structure, magnetism and geophysics of these bodies; their tectonics and volcanism, the effects of impacting bodies, and the surface conditions –atmospheres, oceans, sedimentary features and biology. Held at Wynstones School, Stroud Road, Whaddon, Gloucester from 7.30-9.30pm on Mondays. Cost £70.

### **May 2018**

**Field Course: The Geology of Western Norway** Dates will be for a week to 10 days around a period from May 25<sup>th</sup> to June 4<sup>th</sup>. At this stage I envisage a two, or three base trip, including the Nordfjord, Trondhjem and Lofoten areas, to study basement of Archaean and Proterozoic age, the trans-Scandinavian intrusive belt, Caledonian nappes, mineralisation and of course, glaciers and the fantastic fjord scenery.

### **June 2018**

**Field Course: Tues 5<sup>th</sup> June - Tues 17<sup>th</sup> July Geology and Landscape in Gloucestershire** (evening field course Tuesdays 7-9 First meeting point:- Procester Hill: Meet at the car park for the picnic site at Coaley Peak GR SO 794014 . Further sessions on website, separate leaflet, and/or by contacting Dave Green.

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