



Down to Earth

"Earth science learning for all"

Terras de Cavaleiros Geopark, Portugal March 13-20 2020



One of the excellent roadside sites in the geopark

A word from your leaders...

Over the past few years we have taken a February week long trip to either one of the Canary Islands or else Madeira. So for 2020, we've retained the Iberian theme, along with the winter sunshine (we hope) but instead have chosen to visit a geopark on the Portuguese mainland. The Terras de Cavaleiros Geopark is some 180 km from the northern city of Porto with its airport giving easy access to the UK.

Most importantly, the geologists at the Terras de Cavaleiros Geopark are really looking forward to guiding us around their numerous geosites. They are currently working on a programme for us that will take in the best of their geology and landscape, along with cultural aspects of the surrounding area.

The Terras de Cavaleiros has been designated a geopark by UNESCO because of its fine geology that spans more than 500 million years and includes sites of international importance for their mineralogy, petrology, geomorphology and structural value. The geopark includes significant remains of an ancient ophiolite (sequence of oceanic crustal rocks). Crucially there's a considerable complexity to the structure with many thrusts. Needless to say there are examples of ancient igneous and metamorphic rocks, along with a younger cover of sediments.

We'll be based in a comfortable hotel in the small town of Macedo de Cavaleiros. They will provide us with en suite rooms and all of our main meals for the week. This is a first for us and we are expecting a very positive response to this our first venture into mainland Portugal.

Chris Darmon & Colin Schofield
Field Trip Organisers/Leaders

downtoearth@geosupplies.co.uk

Getting to Macedo de Cavaleiros

There are flights from a number of UK airports to Porto airport which is less than 100 miles away. Several UK budget airlines fly to Porto on a Friday, so we've chosen to start and finish on that day of the week. We will be providing transport from Porto airport to Macedo de Cavaleiros. There is also a regular public bus service. Please don't book any flights until we have confirmed that the trip will be running and we can give you a time slot for your transfer.

Getting around the geopark

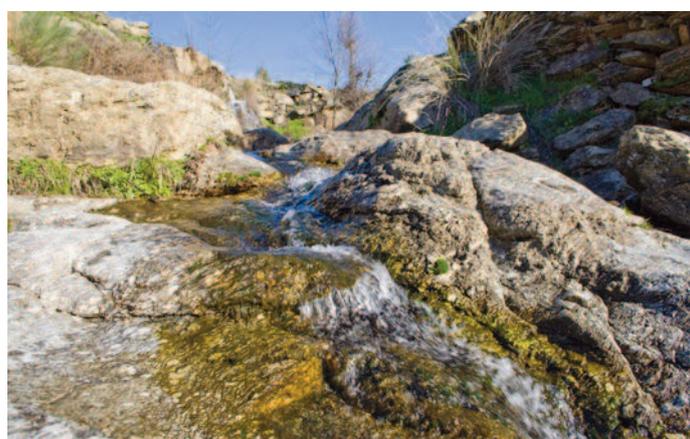
We'll have the services of the Terras de Cavaleiros Geopark staff that includes geologists who know the area well. We will have the use of a small coach to get us close to all of the main sites. This is a rugged area where roads are often quite small.

Walking

Our field excursions are designed to get you as close as possible to the relevant sites and will, in almost every case, involve minimal walking distances. Everything therefore should be within the capabilities of all of the party. However, if at any time you wish to 'opt out' that will be fully acceptable and understood. In view of the uncertainties of the weather you are strongly advised to bring all waterproofs and walking boots/shoes – particularly as you may be walking on snow in some places. Remember that this is March which means that the weather can be somewhat unpredictable.

The geology of the geopark

This is modified from the Terras de Cavaleiros Geopark's website:



The territory of the Terras de Cavaleiros Geopark is located in the region of Trás-os-Montes in northern Portugal and corresponds to the area of the municipality of Macedo de Cavaleiros, about 700 km². The Macedo de Cavaleiros county is located in the northern plateau some 181 km from Porto and 505 km from Lisbon.

In the Terras de Cavaleiros Geopark some 42 geosites with a high scientific value were identified containing mineralogical, petrological, structural, geomorphological and hydrogeological elements. Of these 42 geosites, 11 are included in the National Inventory of geological heritage, with four of them classified as geosites of international relevance.

In the territory of the geopark one can observe and access geosites which document an important stage of planet Earth's history, in particular a sequence of rocks from both oceanic crust and an old continent around 500 million years old that overlapped the oceanic crust. The geopark's

geology is dominated by several Pre-Mesozoic allochthonous geological units, which comprise large slabs of strata that have been 'shipped in' on thrusts. Namely there's the Parautochthonous Complex (equivalent to the Iberian Massif autochthonous stratigraphic sequence), the Allochthonous Basal Complex (continental passive margin of the Iberian Terrane), the Allochthonous Ophiolite Complex (complete ophiolite sequence) and the Allochthonous Upper Complex (complete continental lithospheric sequence). In the contact zone between the autochthonous and allochthonous units thrust faults can be recognized. Additionally, the geopark's territory includes a large range of structures and landforms. There are granites, Cenozoic sediments representing an ancient fluvial network, push-up tectonic reliefs and strike-slip basins, Cenozoic active faults, and a canyon and incised meander-style fluvial valleys. In short, there's something for everybody here!

A provisional itinerary is currently being worked upon by the geopark staff. It will be sent out closer to the date to all participants.

Accommodation & Food

The geopark, like several in the UK, has a network of partners who share some of the same vision for the area. We will be staying at Muchacho Hotel which has been highly recommended by the geopark, it's also rated well on TripAdvisor. They can offer us both single and twin/double rooms which have comfortable en suite facilities. The hotel will provide us with breakfasts and evening meals for each day. At lunch time we will eat out at local eateries as chosen by our geopark hosts.

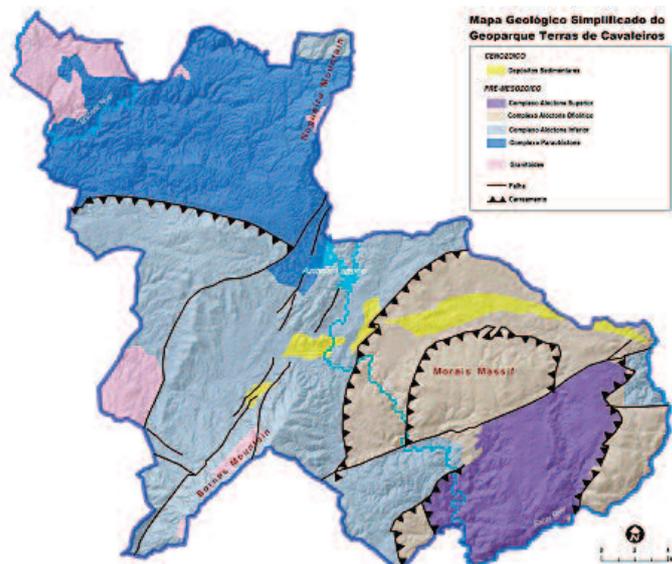
Cost

For 2 people sharing a double or twin room, the cost of the 7-night tour will be £1195.00 per person; for single occupancy, the cost will be £1395.00 per person. Single rooms are limited to a maximum of 5 and are subject to availability.

If you are willing to share a twin room, we will try and help you to find someone of the same sex with which to share.

What's included in the cost?

- The services of our local guides, together with Chris Darmon and Colin Schofield as tutors, who will be available to you at all reasonable times
- Accommodation and meals as specified in the brochure
- Use of hired coach and driver



- Airport transfers but only at a designated time
- Admission charges to any museum or attraction included in the programme

What's excluded from the cost?

- The cost of travel between your home and Porto airport and return
- Travel insurance
- Incidental expenses

Insurance

Everyone booking a place and paying a deposit should take out holiday insurance. This will cover you against loss of money in the event of cancellation etc. Cover is often included in with your credit card or bank account.



Booking



Please fill in and return a completed booking form.. Your booking will be confirmed upon receipt of either a deposit of £300.00 per person or the full payment. The balance of the brochure price will be due by December 31st. 2019.

This trip will run provided a minimum of 20 people have booked by September 30th. 2019.

Your money...

Upon receipt, all monies paid for these trips are placed in a specific 'client trust account' where it cannot be drawn by us until after completion of the tour. This is in accordance with EU Directives and ensures that your money is safe in the unlikely event of corporate failure by Geo Supplies.

What happens next?

As soon as we are in a position of confirming that the trip will run - we will let you know. You will then be free to start making your own travel plans and to take advantage of any early deals on plane tickets.

Please don't make any such arrangements until we have been in touch with you.

Any Questions?

Please ring Chris Darmon on 0114 2455746 or email: downtoearth@geosupplies.co.uk

if you have any questions or queries. I'll do my best to help you.

Further information can be found in "Residential Field Trips 2020" which can be found on our website: www.geosupplies.co.uk



**If you have any questions or queries - contact Chris Darmon as follows:-
Email: downtoearth@geosupplies.co.uk • Tel: 0114 245 5746 • FAX: 0114 240 3405**