

THE DEVELOPMENT OF SCIENTIFIC IDEAS

During the early 19th century this area was the cauldron for the development of geological and other scientific ideas because of the numerous finds of fossils such as the marine reptiles found by Mary Anning in the rocks around Lyme Regis.

EDUCATION FOR ALL AGES

The World Heritage Coast is very important for the education of students of all ages and all levels to help them understand earth science ideas and how these have evolved through time.

USEFUL RESOURCES:

Maps: Ordnance Survey 1:25,000 Explorer Maps 115 and 116, Outdoor Leisure 15, Purbeck and South Dorset.

British Geological Survey Maps Sheet 339 Newton Abbot, 326 Sidmouth, 327 Bridport., Weymouth sheet 342, Swanage sheet 343

Books: Geology of the Dorset Coast. Michael House. Geologists' Association.

Mesozoic Fossils. British Museum (Natural History). This book is very useful for identifying many of the fossils found along the Dorset Coast.

Coast and Country Geological Walks in and around Dorset CD. DGAG

Websites:

dorsetgeologistsassociation.org

jurassiccoast.org

southampton.ac.uk/~imw



Houns-tout, looking towards Worbarrow Bay and beyond to Weymouth, Dorset.

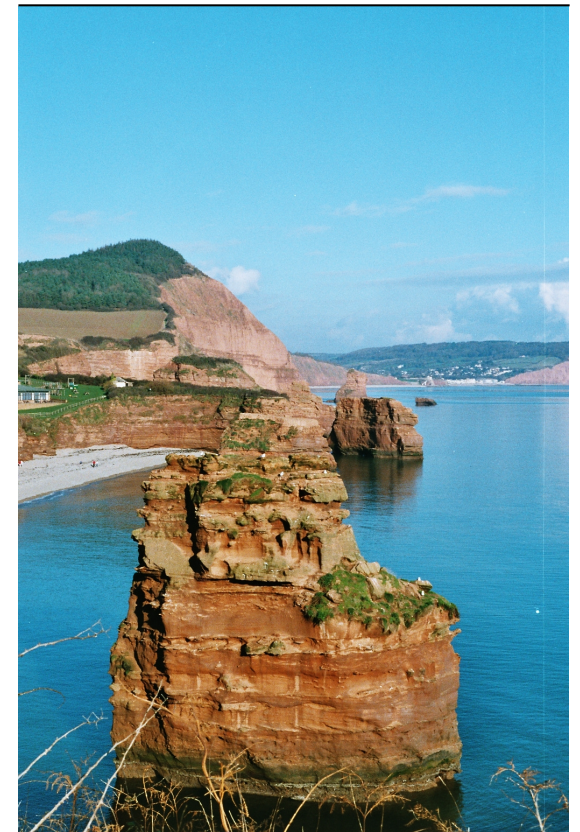
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WORLD HERITAGE COAST LOCATIONS:

INTRODUCTION

WALKING THE COAST FROM WEST TO EAST IS LIKE TAKING AN ESCALATOR THROUGH PART OF GEOLOGICAL TIME.



Ladram Bay to Sidmouth, Devon

WHAT'S SPECIAL ABOUT THE 'JURASSIC' COAST? WHY WAS IT DESIGNATED AS A WORLD HERITAGE SITE?

The World Heritage Site, often called the 'Jurassic' Coast (although this is technically a misnomer) extends from Orcombe Rocks, just to the east of the Exe Estuary at Exmouth (Devon), 85 miles (135 km.) to the Old Harry Rocks between Swanage and Studland (Dorset). This UNESCO site is comparable in status with the Grand Canyon, the Great Barrier Reef and Giant's Causeway.

HOW TO GET THERE:

1. Location: Orcombe Rocks, Devon GR SX 020794 to Old Harry Rocks, Dorset GR SZ 054826.

2. Access is gained via a number of Gateway Towns and other lesser centres. The main access points, from west to east are Exmouth, Budleigh Salterton, Sidmouth, Seaton, Lyme Regis, Charmouth, West Bay, Weymouth, Portland and Swanage. Other access points include Ladram Bay, Branscombe, Beer, Seatown, Burton Bradstock, West Bexington, Abbotsbury, Osmington Mills, Ringstead, Lulworth, Tyneham and

Kimmeridge. Check details in other leaflets in this series and also the sources of information cited in this leaflet.

3. Facilities. The Gateway Towns have facilities open throughout the year but the lesser centres may have limited facilities especially in the middle of the winter. Good quality services are normally available from Easter until the end of October although it is hoped that the growth of out of season tourism will mean that such services will be available throughout the year.

HEALTH & SAFETY

Without wishing to cause alarm to the visitor there are a number of hazards of which you should be aware:

1. Falling cliffs – from above and below you when walking the coast.
2. Being cut off by tides.
3. Uneven rocks.
4. Storm waves.

Some of the cliffs are steep and are affected by mass movement especially in winter. When walking below these cliffs high tides may cut you off – so check the tide times before you walk the coast. Check the weather forecast before you walk the coast too.

THE GEOLOGY

The Dorset and East Devon Coast has world renowned continuous exposure of

rocks of Mesozoic age from the beginning of the Triassic to the end of the Cretaceous formed from about 250 million years ago to about 70 million year ago. The rocks are all sedimentary in origin but they were formed in a variety of environments including continental fluvial (river) and aeolian (desert) as well as marine environments of varying types. Fluctuations in conditions can be related to the latitude of the British Isles through geological time and the relative distribution of land and sea.

THE FOSSILS

As you travel from west to east along the coast these rocks are exposed in association with world class fossil sites. There are ten such sites along the World Heritage Coast. These sites include those associated with the finding of marine reptiles such as ichthyosaurs and plesiosaurs. These and other fossils have given an unprecedented understanding of the evolution of life during the Mesozoic Era.

THE LANDFORMS

The coastline is famous for many major landforms including Chesil Beach and the Fleet as well as Lulworth Cove, Stair Hole, Durdle Door and the stacks of Old Harry . There are also outstanding landslips such as those at Black Ven and between Axmouth and Lyme Regis.