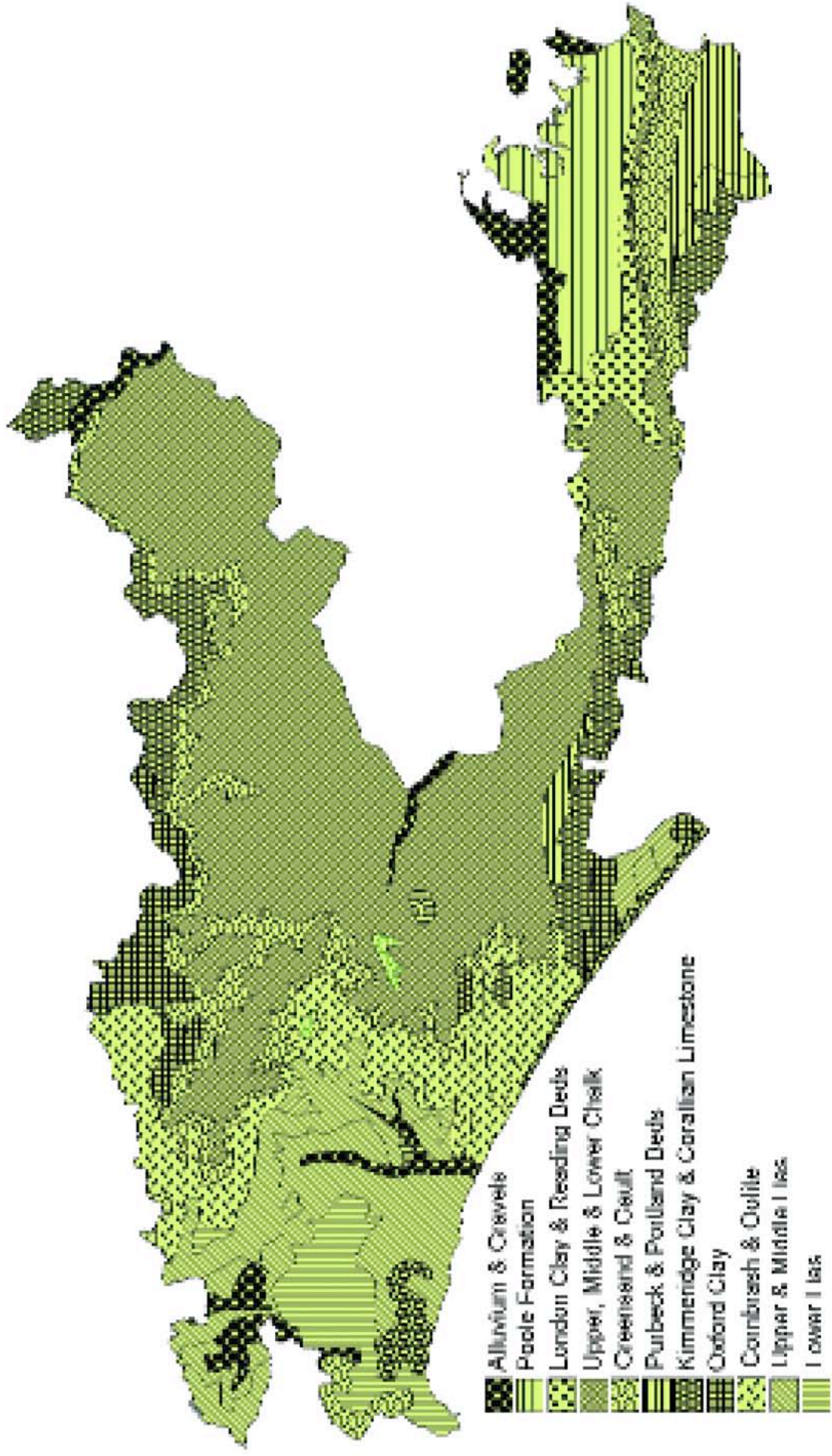




Natural Beauty and Heritage
Earth Heritage

5. Policy Framework - Earth Heritage



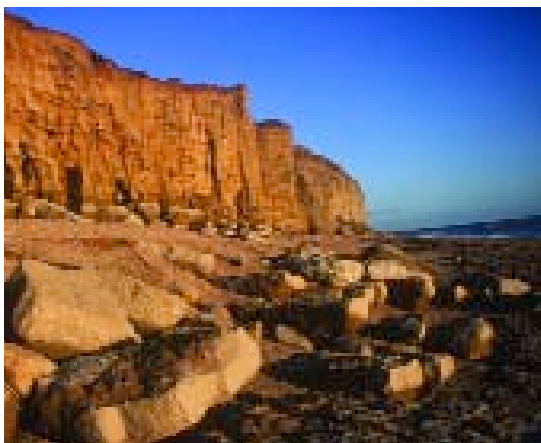
Geology of the Dorset AONB.

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5.4 Earth Heritage

Background

5.4.1 Dorset has a particularly diverse geology, representing 165 million years of evolutionary history. This geology gives us the wide range of distinctive landscapes and wildlife habitats for which Dorset is famous. This exceptionally fine natural heritage is reflected not only through the AONB designation, but also through the recent designation of the Dorset and East Devon Coast as a World Heritage Site. A continuous geological sequence spanning 185 million years of earth history is represented along 95 miles of coast. In addition, there are the two Heritage Coast designations for Purbeck and West Dorset, 21 Sites of Special Scientific Interest (SSSIs) designated specifically for their geological importance, with a further 18 having significant geological interest. There are approximately 60 sites designated for their regional importance (RIGS).



The impressive cliffs of the 'Jurassic Coast'.

5.4.2 Earth heritage embraces not only the solid geology but also land shape and form created by geomorphological processes. From clay vales, limestone scarps, chalk downland and even ancient landslides and erosion surfaces, a great diversity of rock types, erosional processes and structures have created the unique, variable and distinctive countryside of the AONB. The character of the picturesque towns, villages and, in places, dry stone walls, is due to the use of a diverse range of local building stones.

5.4.3 This geology, which has given rise to our landscapes and heritage, also represents the mineral resources of the county. Extraction of these mineral resources can have major impacts on landscape and wildlife, but also provides an opportunity for a better understanding of our geological past.

5.4.4 In 1970, following detailed surveys of the coastline of England and Wales made with the help of local authorities, the Countryside Commission identified 34 of the finest stretches of remaining undeveloped coast as potential 'Heritage Coasts', worthy of special protection for the nation; the West Dorset and Purbeck coastlines were included amongst these. Considerable work has been undertaken by the local authorities to conserve and manage the Heritage Coasts and the AONB Plan will build on this foundation. The Dorset and East Devon Coast was designated as England's first natural World Heritage Site in 2001. The site is an outstanding example, representing major stages of Earth's history, including the record of life, significant ongoing geological processes and the development of landforms and significant geomorphic or physiographic features.

Current Trends

5.4.5 The geodiversity of the AONB is expressed in the landscape and can be seen in the quarries opened up for building stone and other mineral resources. However, the use of local stone has greatly declined over the last hundred years and access to geodiversity has suffered as a result. Many old quarry sites have become overgrown or filled in.

5.4.6 Some quarries are designated as Sites of Special Scientific Interest (SSSI) or Regionally Important Geological/Geomorphological Sites (RIGS) but without management they will continue to decline. The loss of local quarries also impacts on the built environment; Purbeck Stone is probably the most



Designated Geological Sites in the Dorset AONB.

widely used building stone across the AONB but it does not belong in West or North Dorset. The use of artificial stone substitutes further weakens the character and local distinctiveness of the built environment.

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5.4.7 The recent designation of the World Heritage Site and consequent promotion of a greater understanding of geology and the story of evolution provides renewed opportunity for Dorset's diverse earth heritage.

Key Issues

5.4.8 The loss of access to geodiversity is, without doubt, the greatest issue for geology across the AONB but it could be different. Greater use of local stone could maintain the character of towns and villages and create geodiversity. On the other hand, in landscape terms, quarrying can be damaging. Is quarrying in Purbeck part of the landscape or damaging to the landscape? What does it do for local character and the economy? Clearly a balance has to be struck but across large parts of the AONB the balance is not correct. The issues can be summarised as:



An amazing rock formation at Lulworth Cove.

- Loss of access to geodiversity (though active quarries often offer some access on a restricted basis).
- Geology and part of the story of the evolution of life is often hidden from view and is under appreciated as part of our unique heritage.
- Direct damage to geological heritage from unsympathetic coastal defence works.
- The academic, educational, interpretive and recreational opportunities presented by geological exposures are often not appreciated and missed.
- The links between the geology and the character of the landscape, built environment and culture of areas within the AONB are not understood.
- Better management of quarries and exposure sites could play a much more significant role in telling the story.

- Damage caused by fossil collectors not adhering to fossil collectors code.
- Lack of understanding of the importance of natural processes in beach formation, e.g. allowing erosion to supply sand and pebbles.
- Dangers of access to cliffs to observe geological features can be underestimated.
- Loss of valuable information and data due to lack of feedback process for fossil collectors.

Key Opportunities

5.4.9 The comprehensive work undertaken for the bid for World Heritage status and the ensuing Management Plan and Framework for Action have provided a crucial insight into the unique geological heritage and its educational, recreational and economic value. Key opportunities exist to take forward these areas of work and integrate them into wider AONB management. Links between the World Heritage Steering Group and the Dorset AONB Partnership have been formalised and the opportunities for effective joint working to implement both the World Heritage Framework for Action and the Dorset AONB Management Plan are being explored.

5.4.10 Plans to develop Local Geodiversity Action Plans (LGAPs), encouraged by English Nature, may be a further catalyst for joint working.



Quarrying provides local building stone.

5.4.11 Through identifying catchment areas for local building stone, opportunities exist to reverse the decline in the loss of diversity in the built environment. The main areas for local stone are:

- Sherborne/BradfordAbbas/Beaminster /Broadwindsor/Symondsburby/Burton Bradstock - the Inferior Oolite.
- Cattistock - Upper Cretaceous Chalk.
- Worth and Langton Matravers - Lower Cretaceous Purbeck Limestone.

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- Portesham - Upper Jurassic Portland Limestone.
- Abbotsbury - Upper Jurassic Corallian limestone.
- Symondsburry - Middle Jurassic Inferior Oolite and Forest Marble.
- Lyme Regis - Lower Jurassic Blue Lias.

Current Activity



The World Heritage Site is a valuable educational resource.

5.4.12 With its diverse and important geology, there is a great deal of activity in Dorset. This includes:

- **World Heritage Site.** Most of the current activity in earth heritage concerns the implementation of World Heritage Site management and interpretation, which will help develop the status of the area in addition to achieving greater environmental protection.
- **Purbeck HLF Project.** The Heritage Lottery Fund bid being developed for the Isle of Purbeck aims to enhance the interpretation of the stone industry and provide opportunities for stone wall restoration.
- **SSSIs and RIGS.** Positive management of geological SSSIs and RIGS through English Nature Management Agreements and 'Facelift' programme are achieving benefits.
- **Minerals Local Plan.** This is a major area of activity for Dorset County Council.

Related Policies and Strategies

5.4.13 Policies, strategies and documents relating to earth heritage in the AONB include:

- *Earth Science Conservation in Great Britain - A Strategy* (Nature Conservancy Council, 1991)
- *World Heritage Management Plan* (revised) (World Heritage Team, 2003)
- *World Heritage Education Strategy* (World Heritage Team, 2003)
- *World Heritage Scoping Study* (World Heritage Team)
- *Dorset Heaths Natural Area Profile* (English Nature, 1998)
- *Isles of Portland and Purbeck Natural Area Profile* (English Nature, 1998)
- *Wessex Vales Natural Area Profile* (English Nature, 1998)
- *The South Dorset Coast Maritime Natural Area Profile* (English Nature, 1998)
- *South Wessex Downs Natural Area Profile* (English Nature, 1998)
- *Blackdowns: A Nature Conservation Profile* (English Nature, 1998)



A sculptor uses local stone.

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5.4.14 Dorset AONB Policy Framework - Earth Heritage

Policy Aims

- Increase understanding and awareness of the importance of geology in shaping the landscape and in creating the distinctiveness of our local environment.
- Increase understanding and awareness of the educational, social and economic value and attractiveness of our geological heritage.
- Protect, interpret and promote the World Heritage Site and its geological story, through support for its management plan and seek opportunities to promote the geological story throughout the AONB.

Policy Objectives

- EH1. Promote the value of excavations for earth sciences.
- EH2. Identify and develop opportunities to raise understanding and enjoyment of geology.
- EH3. Promote the use of local building stone through the provision of stone catchment guidance.
- EH4. Support and promote the restoration, where appropriate, of old quarries to reveal geology, geological and industrial records.
- EH5. Secure the retention and management of appropriate exposed sites for education and interpretation purposes by land management agreement.
- EH6. Demonstrate and interpret the links between geology, biodiversity, landscape, local character, industry and culture and develop synergy with the World Heritage programme.
- EH7. Celebrate and promote the geological heritage of the Dorset AONB.
- EH8. Safeguard and secure best management of nationally important sites through advice and land management agreements.
- EH9. Support local communities in investigating, conserving and interpreting their geological heritage.
- EH10. Promote respect for geological heritage through the fossil collectors code.