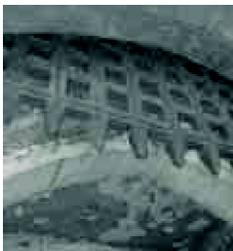


# Taunton Rock Trail

Explore the hidden secrets from times past



The Taunton Rock Trail provides an excellent introduction to the geology around Taunton.

Building stones provide one of

the best ways of getting to know the local rocks as there are now so few accessible exposures available for study. The trail only touches upon a selection of rock types that illustrate the local geology.

Emphasis is placed on description rather than explanation. Geology is an observational science. Study of the textures, colours and structures of the various rock types is an essential first step in recognising them. A small x10 hand lens (held close to the eye) is very helpful in seeing the details.

Time: 1-1½ hours. The Trail is fully accessible for disabled people (avoid the steps from Castle walk to Corporation Street by diverting via Fore Street).

A fuller account of the building stones and allied topics can be found in 'Geology and Landscape of Taunton Deane' (Prudden, 2001).

This leaflet is hosted on the web site of

## THE CAMPBELL ROOM

self catering accommodation for groups  
in Somerset's Quantock Hills

[www.campbellroom.org.uk](http://www.campbellroom.org.uk)

## FURTHER CONTACTS

The Museum's displays of geological interest are currently being revised. They include: local minerals, invertebrate marine fossils, Lower Jurassic marine vertebrates and Pleistocene (Ice Age) mammals from the famous bone caves of the western Mendips. The reserve collections are extensive, numbering in excess of 40,000 specimens of rock, minerals and fossils. Books can be purchased at their shop near the entrance.

Taunton Castle, Castle Green, Taunton TA1 4AA.  
Tel: 01823 320200. [www.somerset.gov.uk/museums](http://www.somerset.gov.uk/museums)  
Telephone for opening times.

### Somerset Studies Library

The Reference Library, located in Paul Street, has a selection of geological memoirs, articles and maps besides a wealth of other material on Somerset topics. It is open 9.30-5.30 except Wednesday and Friday until 7.00 and Saturday 4.00.  
Paul Street, Taunton TA1 3XZ. Tel: 01823 340300.

### SOMERSET GEOLOGY GROUP

The Group have helped in the preparation of this leaflet. Members record temporary exposures and oversee the conservation of important geological sites. It is a specialist group within the Somerset Wildlife Trust: Fyne Court, Broomfield, Bridgwater TA5 2EQ.  
Tel: 01823 451587.



For further information please contact:

Heritage and Landscape Team, Taunton Deane Borough Council,  
Belvedere Road, Taunton, Somerset TA1 1HE.

Tel: 01823 356493 Email: [heritage.landscape@tauntondeane.gov.uk](mailto:heritage.landscape@tauntondeane.gov.uk)

[www.tauntondeane.gov.uk](http://www.tauntondeane.gov.uk)

JP8141.12.05



# Taunton Rock Trail



An open-air museum

Discover the science of  
geology in Taunton

# Taunton Rock Trail

Explore the hidden secrets from times past



Figure 1  
Gateway to County Museum

## Stop 1. Enter the Museum driveway.

The wall on the left is constructed of **CHERT**: a hard siliceous rock that was once widely dug in the Upper Greensand of the Blackdown Hills, where a great many houses are built of what is a rather intractable stone for building. It is almost immune to any kind of weathering. Happily, reddish iron staining can soften its image.

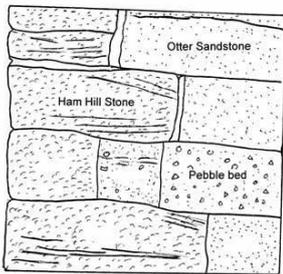


Figure 2. Wall on left of Arched Gateway.

## Stop 2.

Use Figure 2 to examine the stones on the left hand side of the Gateway. The red rocks are **OTTER SANDSTONE** from the Triassic Period. The strong red colour derives from the oxidised iron content (haematite). Typically, there are rounded and angular sand grains together with small pebbles. It was widely used in the past for rubble and better quality walling with large quarries at Bishops Lydeard. It is still worked at Capton near Williton.

The golden coloured stones are **HAM HILL STONE** from the hill of the same name near Yeovil. In the Middle Ages the stone was shipped along the Parrett and Tone to Ruishton, thence by horse and cart. Because of the distance it was used either for prestigious buildings or for window and door mouldings. It can be sawn readily. It has a warm colour and generally weathers well. Keep your eyes open for it elsewhere and note the variety of tooling and surfaces that it presents. It is mainly composed of fragments of broken sea shells cemented with calcite and iron. Ham Hill Stone has a wavy appearance; this indicates that the shell debris was deposited by strong currents on the sea floor.

## Stop 3. Pass through the Gateway into the Inner Ward.

Immediately on the left is a wall of blue-grey calcareous mudstones and limestones, namely **BLUE LIAS**, well-known to visitors to Lyme Regis. The colour indicates iron in the reduced state. Oxidation results in a change to yellow-brown. Originally it was an organic-rich mud on the sea floor. Look for some blocks which contain the small brachiopod *Calcirhynchia calcaria*. Unhappily it tends to be a rather poor building stone in the Taunton area but some better quality Blue Lias is now being quarried near Somerton.

## Stop 4.

The colourful, modern-looking building on the far right of the Courtyard with square-cut blocks has a variety of stones. Blue Lias, Ham Hill Stone and Otter Sandstone can be recognised. The green rock is **COCKERCOMBE TUFF** which was once quarried in the Quantocks. It is a volcanic ash, laid down in the sea in the Devonian Period, containing the green mineral chlorite. Note the paving slab with asymmetrical ripples.

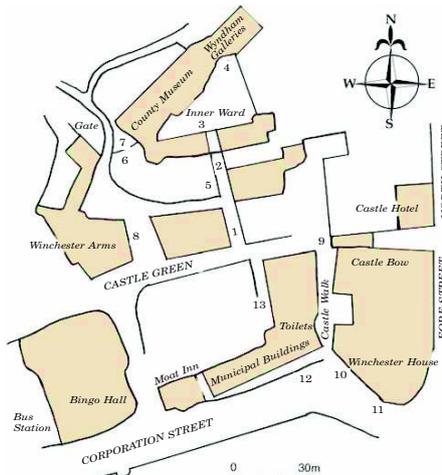


Figure 3. Trail plan showing the location of the stopping places.

## Stop 5 Return to the driveway entrance and examine the Excalibur Stone.

This grey lump of rock is **CARBONIFEROUS LIMESTONE** (Carboniferous Period). It is difficult to make out the details even with a hand lens as there has been partial recrystallisation owing to it being subjected to both heat and pressure during a period of deep burial in the earth's crust. It contains spherical oolites and crinoid debris. Crystalline pinkish-white calcite (calcium carbonate) fills gaps where the rock has fractured. Note the cross-cutting veins implying several occasions when the rock split and veins formed.



Figure 4. Excalibur Stone

## Stop 6.

### Follow the path round to the right and view the large rock in the Castle garden.

This massive block of siliceous sandstone is a **SARSEN** brought 5 miles from Staple Fitzpaine south-southwest of Taunton, a splendid place to study a group of them by the roadside. It is similar to the large rocks seen at Avebury and Stonehenge. They are exceedingly tough and difficult to break up. They are a relict of the time when what is now Somerset had a semi-tropical climate.

## Stop 7. Continue to the right up to the Castle walls.

This really is a random rubble wall and said to date from the 12th century. Use Figure 5 to identify rocks that have already been met on the tour. The stone labelled 'PDS' is possibly a Devonian Period quartz-rich sandstone cobble (**PICKWELL DOWN SANDSTONE**). This has also suffered some recrystallisation as the sand grains are welded together. Compare the varying degrees of weathering among the stones. The older parts of the Museum have a great variety of building stones: this is a typical where there has been rebuilding and reuse of whatever was lying around.

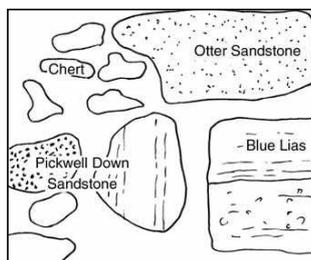


Figure 5. Part of the Castle Wall

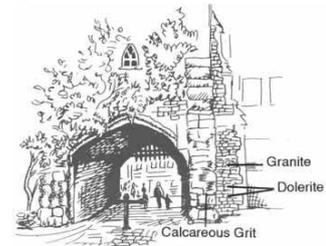
## Stop 8. Return along the path to Castle Green and examine the front and side walls of the Winchester Arms

The walls are mainly **NORTH CURRY SANDSTONE** (Triassic Period). It is a pale, brownish-grey rock with rock fragments set in a finer-grained matrix; some blocks show good examples of cross-bedding resulting from deposition by strong currents. It is best seen in Norton Fitzwarren church to the west of Taunton.

## Stop 9. Walk back along Castle Green to the stone archway ahead of you known as Castle Bow (Eastgate).

The front buttress (see figure 6 below) shows a cream, fine-grained calcareous sandstone. This was an important building material in the Blackdown Hills in the past, especially for churches, as it could be readily sawn for blocks and mouldings. It was quarried from the Upper Greensand especially around Chard. It was used to build the Wellington Monument. The granite and dolerite are igneous rocks and not local.

Figure 6. Castle Bow.



## Stop 10.

### Turn right along Castle Walk and then right again along Corporation Street noting the Blue Lias at the front of the ladies toilets.

**Winchester House**: An orange-brown limestone from the Cotswolds. Best seen with the hand lens; note the shelly, crinoidal debris with oolites in a calcareous, ferruginous matrix. Acid rain appears to have bleached the upper projecting surfaces.

Figure 7. Municipal Hall

## Stop 11.

A pale cream, smooth-faced limestone with oolites supported in a lime-mud matrix. **BATH STONE**

## Stop 12. Municipal Hall.

The Municipal Hall (the Old Grammar School c 1520) presents yet two more local rocks. The front and side walls have a rough-faced, sharp-edged grey siltstone plus more massive blocky sandstones of Devonian Period (Morte Slates rock formation) from the southern Quantocks. They have a real rustic quality; quite different from the noble Ham Hill Stone. At pavement level there is what is perhaps the most unattractive of the building stones on the tour: the **WESTLEIGH LIMESTONE** (Carboniferous Period) from the other side of Wellington. It is a well-bedded rock with (a) beds of pale and dark brown, calcareous sandstones, and (b) bands of black smooth, very hard chert. They are best seen in the end wall of the Moat Inn.

HAM HILL STONE

DEVONIAN SANDSTONE

UPPER WESTLEIGH LIMESTONE

# WHY HAS TAUNTON SO MANY DIFFERENT BUILDING STONES?

The adjoining map (Figure 8) shows the sources for some of the rocks seen on the Trail. This variety reflects the geological pattern around Taunton. The older Devonian age rocks are found on Exmoor, the Brendon Hills, the Quantocks and the eastern side of Wellington. The red Permo-Triassic age rocks are mainly found in the Vale of Taunton Deane and between the Brendon Hills and the Quantocks. The younger Blue Lias and Upper Greensand crop out to the south and east of Taunton. Taunton lies in the area of overlap once served by quarries in these various rock groups. The map in Figure 9 shows the generalised geology of Somerset plus the periods mentioned in the text.

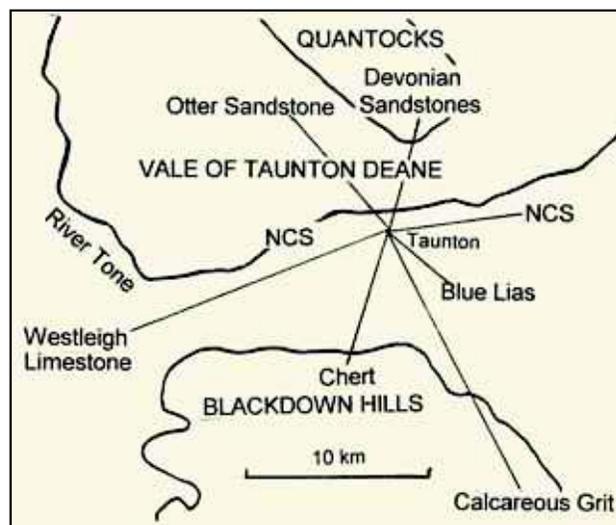
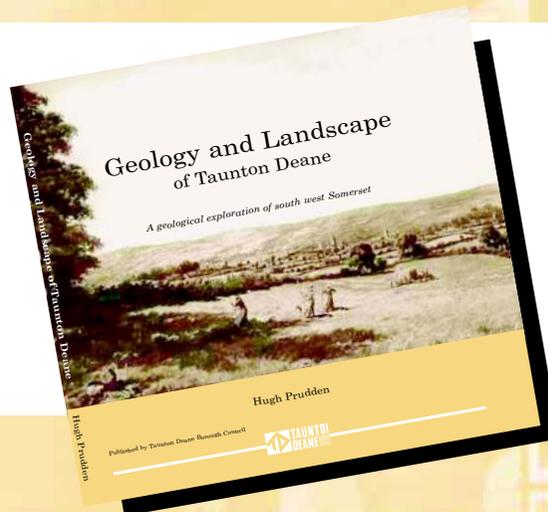


figure 8.

# A new book of fascinating local interest Geology and Landscape of Taunton Deane

A geological exploration of southwest Somerset by Hugh Prudden

Published by Taunton Deane Borough Council



This book is intended as an introduction to the geological features of the Taunton area and especially as a guide to places worth visiting. It has been prepared for both local people and visitors. It is not designed to serve as a systematic text book or to present a detailed account of the geology of the area. It does, however, provide a bridge to the technical literature. The Taunton area has a rich and varied geological inheritance awaiting your discovery.

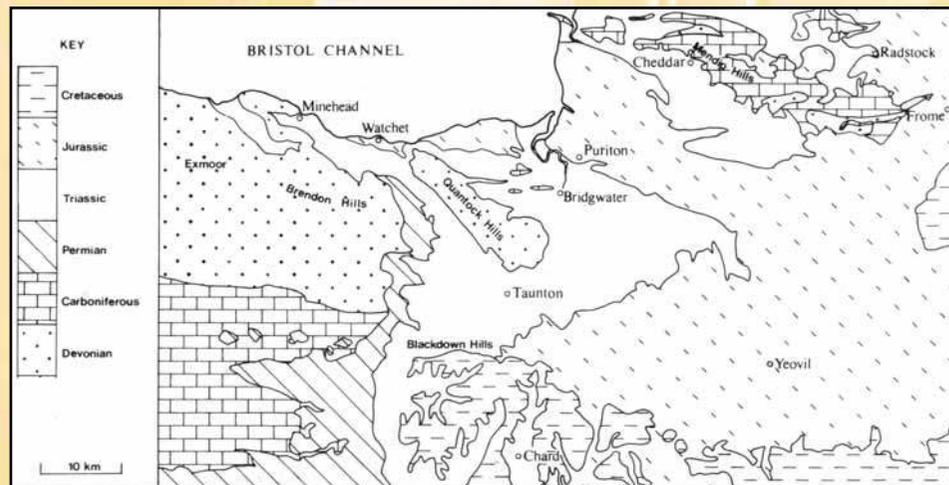


figure 9. Simplified geological map of Somerset

## FURTHER READING

'**Geology of Somerset**' P Hardy. 1999. Bradford on Avon; Ex Libris Press.

'**Geology of the country around Taunton and the Quantock Hills**'. 1985. E.A. Edmonds, and B.J. Williams. London: HMSO.

'**Geology and Landscape of Taunton Deane**'. 2001. H.C. Prudden. Taunton: Taunton Deane Borough Council.

'**Geological highlights of Hestercombe**'. 2003. H.C. Prudden. Hestercombe Gardens.

'**Ham Hill: the rocks and quarries**'. 1995. H.C. Prudden. Yeovil: South Somerset District Council.

'**Geology of Exmoor**'. 2000. R.A. Edwards. Tiverton: Exmoor Books.