

# LIMESTONE LANDSCAPES

## The Grange Pavements

### Location

The Grange limestone pavements lie north west of Grange-over-Sands on a series of low hills overlooking Morecambe Bay. They are a mosaic of wooded and open pavements, the wooded pavements being found on the lower slopes of the fells. The highest point of Hampsfell (also known as Hampsfield Fell) is just over 300m above sea-level. It is marked by a stone Hospice, situated on an ancient route to Cartmel Priory. Hampsfell slopes steeply to the west and more gently to the east, the westernmost areas of limestone pavement being very exposed. There are magnificent views to the Langdales and Scafell Pike to the north and over Morecambe Bay and Arncliffe to the south. On a clear day, the flat top of Ingleborough, highest peak in the Yorkshire Dales can be seen.

### Access

These are some of the most easily reached limestone pavements in Cumbria with regular bus services to Grange-over-Sands from Kendal and a station served by the railway line from Lancaster to Barrow-in-Furness. For bus times and information contact the Cumbria Travel Line on 0870 6082608. A short, steep walk up through the beautiful Eggerslack Woods will bring the visitor out onto the high pavements of Hampsfell. The limestone pavements can also be reached from Lindale to the north-east of Hampsfell. The pavements are criss-crossed by a network of public footpaths allowing easy access and most of the fell-top is now open access land. More information can be found on OS Explorer Map OL7.

*Please look after this special area by doing the following:*

- Keep mountain bikes and horses to public bridleways
- Use gates and stiles provided – don't climb walls
- Leave flowers and fossils for others to enjoy
- Take litter home
- Leave gates as found

Take care when walking in the area as wet limestone pavements are slippery and dangerous.

More information about the Brown Robin Nature Reserve contact:  
Cumbria Wildlife Trust  
Plumgarths  
Crook Road  
Kendal LA8 8LX  
www.cumbriawildlifetrust.org.uk



For more information about limestone pavements and nature conservation contact:  
The Limestone Pavement Action Group  
at the Cumbria Wildlife Trust  
address above  
www.limestone-pavements.org.uk



The Forestry Commission manage Eggerslack Wood & Heaning Wood and are restoring Hampsfield Allotment. For more information contact:  
North West England Forest District  
Grizedale  
Ambleside  
LA22 0QJ



This leaflet was funded by the RMC Environment Fund and the Countryside Agency with assistance from English Nature



RMC Environment Fund

The RMC Environment Fund has been established under the Landfill Tax Credit Scheme and is managed by The Environment Council

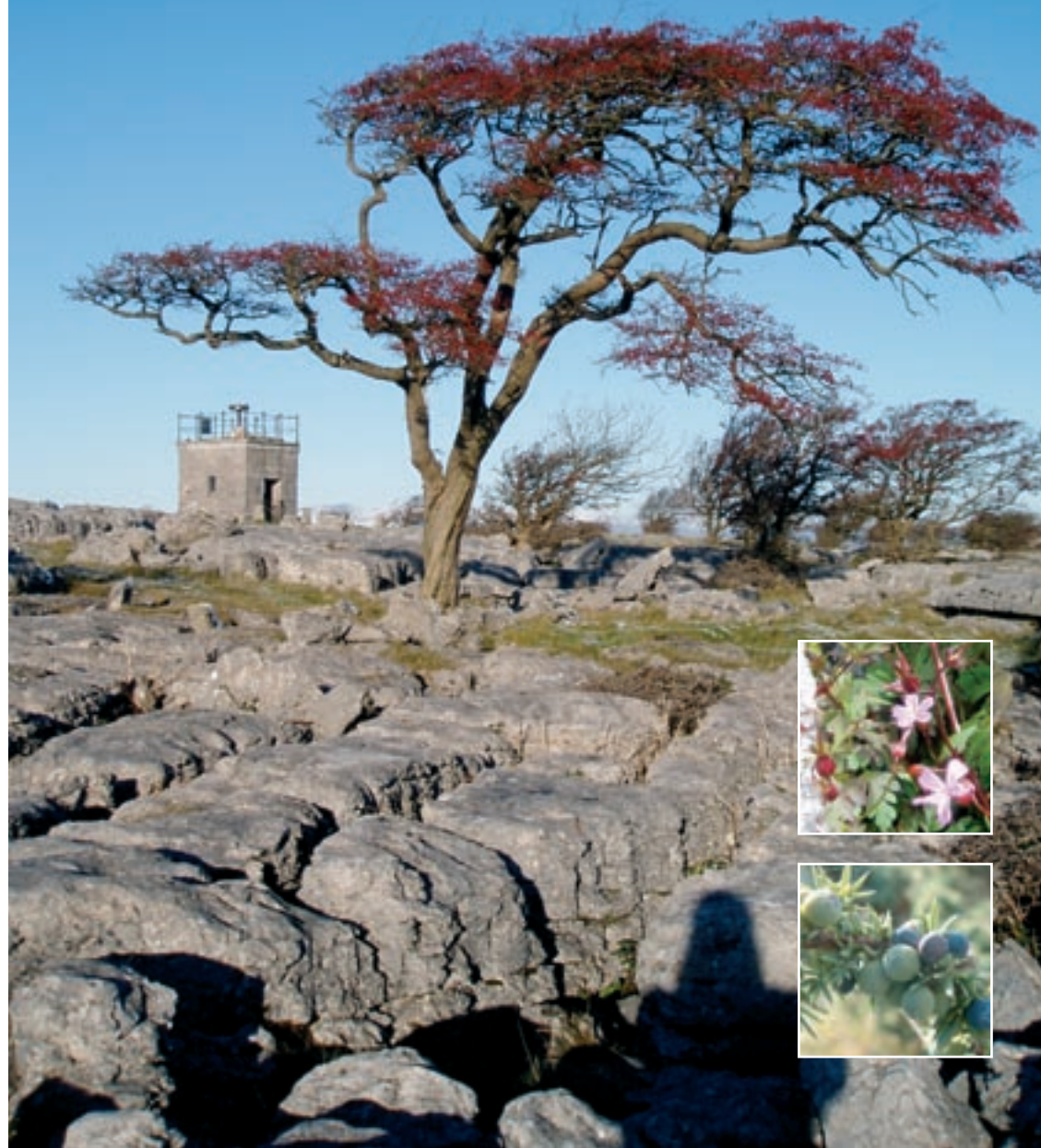
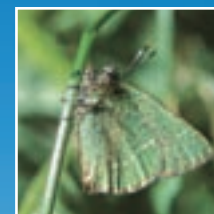
Thanks to Cumbria County Council and the Lake District National Park Authority for providing the archaeological information for this leaflet.

Front cover: Hampsfell Hospice, green hairstreak butterfly, herb-Robert, juniper berries.

www.sincclair-design.co.uk 01539 737913 Published 2005

# LIMESTONE LANDSCAPES

## The Grange Pavements



# LIMESTONE LANDSCAPES

## The Grange Pavements

### Human history

There is evidence of thousands of years of human habitation and use of the Grange limestone pavements. Various stone implements have been found as well as a burial cairn and possibly a prehistoric hut circle and field markers. A cave to the east of Hampsfell was discovered in the late 19th Century which showed evidence of occupation by prehistoric people. Roman and Dark Age coins have been unearthed, along with Roman pottery shards of Samian Ware.

The top of Hampsfell is divided by straight walls into a series of "Allotments". This division took place during the early nineteenth century under a Parliamentary Enclosure Act. Eggerslack Wood is divided from the main body of Hampsfell by a meandering wall which is much older than the straighter walls on top of the fell and marks a medieval boundary. On top of Hampsfell is a tower known as the Hospice, built in 1830 by the Reverend T Remington "for the use of visitors and others".

There are steps to the top of the Hospice from where, on a clear day, there is a stunning panoramic view of the fells and the Bay. A trackway, which runs over the top of Hampsfell past the hospice, was part of the pilgrimage route to the Cistercian monastery at Cartmel.

There is a pair of clints used as standing stones at Heaning Wood which went by the names of Robin Hood and Little John. It is likely that these stones were boundary markers. There is another pair of standing stones near a lime kiln to the north of Heaning Wood. These again were either gate posts or boundary markers.

Limestone has been quarried from the Grange over Sands area for hundreds of years. There are records of fourteen limestone quarries which fed eight lime kilns providing lime for building and agricultural purposes. Some of the most recent lime kilns are very imposing structures, while the older ones are often just small furnaces built into the hillside.

### Botany



Hart's-tongue fern

The open pavements at the top of Hampsfell are rich in lime-loving plant species. The grikes are home to ferns and other plants which like rocky but sheltered environments.

These include maidenhair spleenwort, hart's-tongue fern and wall-rue as well as the rare rigid buckler and limestone ferns. Other species found in the grikes, pits and pans are wood anemone, herb-Robert, hairy rock-cress, dog's mercury, wall lettuce and the uncommon species mountain melick, juniper and dark-red helleborine.

Surrounding the limestone pavement blocks are areas of limestone grassland. The grassland is characterised by the scarce species blue-moor grass, limestone bedstraw, hairy violet and carline thistle along with more common species, including thyme, fairy flax, quaking grass and birds-foot trefoil as well as early-purple orchids.

The wooded limestone pavements at Eggerslack and Brown Robin are dominated by an oak/ash cover with species such as bird cherry, hazel and spindle found in the understorey. Whitebeam, yew and lime can also be found occasionally through the woodland, although yew is much more common on Yewbarrow. The ground flora of the woodlands is dominated by dog's mercury, lords-and-ladies and herb-Robert, and there are frequent occurrences of ivy, wood-sorrel, woodruff, spurge laurel and a carpet of bluebells in the spring. The clints in the wooded areas are almost all covered by moss, but where the cover is thinner, wild strawberry, biting stonecrop, wild thyme and limestone bedstraw can be found growing on the clint tops and in the solution runnels.



Biting stonecrop

View over Kent Estuary



Lime kiln



Blue-moor grass



Dark-red helleborine



Rigid-buckler fern



# LIMESTONE LANDSCAPES

## The Grange Pavements

### Geology & geomorphology

The limestone pavements at Grange are outcrops of rock which was laid down in the Carboniferous period, some 350 million years ago. Limestone is made up of the remains of millions of small shelly creatures and formed in a warm shallow sea just like the coral reefs found in tropical areas today. Geologists call the rocks outcropping at Grange the Urswick limestones which are part of an extensive area of limestone surrounding Morecambe Bay.

During the last ice age, the surface of the limestone was scoured by glaciers. This glacial action started the formation of the level and gently sloping surfaces which can be seen on limestone pavements. Narrow fissures in the limestone are known as grikes and upstanding blocks as clints. These were shaped by water under a layer of soil deposited by the glaciers. This soil was eventually eroded away leaving the clints and grikes exposed. Runnels (gutterlike channels) are found on top of clints along with pits and pans which are hollows in the limestone. The glaciers that eroded the limestone carried rocks known as erratics onto the pavement. The erratics are often sandstone and can be found in grikes and on the top of the pavements. Some of the larger erratics weigh more than 10 tonnes, indicating the power of the glacier.



Wooded limestone pavement



Runnels on limestone pavement

### Damage to the pavements

There is only 26km<sup>2</sup> of limestone pavement in the UK, an area about the size of Carlisle, so every bit is precious. Limestone pavement is a habitat that cannot be renewed or 'grow back' so once it has been damaged, that damage is permanent. The Grange limestone pavements were very badly damaged by quarrying for clints for the building trade during most of the twentieth century. Because of this, the Hampsfell pavements were the first limestone pavements in England to be designated with a Limestone Pavement Order after the 1981 Wildlife and Countryside Act recognised the value of this rare habitat. The wooded pavements (including Eggerslack Wood, Yewbarrow and Brown Robin) were designated as The Grange-over-Sands Woodlands in 1994.

There is a marked contrast between the sheltered wooded pavements in Eggerslack Wood, Brown Robin and Yewbarrow and the open pavements at the summit of Hampsfell. Eggerslack Wood on the south-east facing slopes above Grange has ridges of steeply sloping mossy and wooded pavements with a few open pavements in clearings towards the top of the hill. Yewbarrow's limestone pavement is covered by stands of dark, dense yew woodland.

The open Hampsfell pavements are spectacular, with areas of clints and grikes situated in flower-rich limestone grassland. There are deep grikes here, and runnels are very dense on the surface of the clints. Pits and pans on the rock surface are widespread. The pavements at the edges of Hampsfell have a sheltering cover of trees and are more protected than the pavements on the top of the hill.

Common blue



Speckled wood



Pearl-bordered fritillary

### Animal life

The Grange pavements are renowned as being an excellent habitat for butterflies with 24 species having been recorded in this small area. Hampsfell and the surrounding pavements are a haven for the rare and endangered high brown fritillary which still has a stronghold in the limestone grassland around Morecambe Bay. Pearl-bordered, small pearl-bordered, silver-washed and dark green fritillaries are also found in the woodlands and grasslands of Hampsfell. The comma and speckled wood butterflies are found in the woodlands and the green hairstreak, northern brown argus and wall butterflies are found on the open limestone grassland and pavement. The Grange pavements are a good habitat for moths as well as butterflies, and a number of notable moth species have been recorded, including the speckled yellow, thyme pug, juniper carpet and mullein wave.

The whole area is used by badgers with many setts in both the woodlands and the open areas. polecats, stoats and weasels have been recorded in this area along with brown hares and deer. Although they are becoming more scarce, red squirrels are known to use the woodlands. Slow worms and adders live on Hampsfell where the grassland is a particularly good habitat for reptiles.



Stoat



Red squirrel

