Malhamdale and Southern/South Western Dales Fringes

+ Physical Influences

Malhamdale

The landscape of Malhamdale is dominated by the influence of limestone, and includes some of the most spectacular examples of this type of scenery within the Yorkshire Dales National Park and within the United Kingdom as a whole.

Great Scar limestone dominates the scenery around Malham, attaining a thickness of over 200m. It was formed in the Carboniferous period, some 330 million years ago, by the slow deposition of shell debris and chemical precipitates on the floor of a shallow tropical sea. The presence of faultlines creates dramatic variations in the scenery. South of Malham Tarn is the North Craven Fault, and Malham Cove and Gordale Scar, two miles to the south, were formed by the Mid Craven Fault. Easy erosion of the softer shale rocks to the south of the latter fault has created a sharp southern edge to the limestone plateau north of the fault. This step in the landscape was further developed by erosion during the various ice ages when glaciers flowing from the north deepened the basin where the tarn now stands and scoured the rock surface between the tarn and the village, leading later to the formation of limestone pavements. Glacial meltwater carved out the Watlowes dry valley above the cove.

There are a number of theories as to the formation of the vertical wall of limestone that forms Malham Cove, whose origins appear to be in a combination of erosion by ice, water and underground water. It is thought that water pouring down the Watlowes valley would have cascaded over the cove and cut the waterfall back about 600 metres from the faultline, although this does not explain why the cove is wider than the valley above. Glaciers flowing over the cove could have contributed to the width of the wall. After the ice retreated the water sank underground, some of which resurged at the foot of the cliff and continued to undercut parts of the limestone wall.

Gordale is a rocky trench through the limestone and it also ends in a major step associated with the Mid Craven Fault. Ice Age meltwater scoured Gordale and its cascades over the fault scarp rapidly cut backwards into Gordale Scar. The narrow gorge with its limestone sides soaring nearly 100 metres is a fine example of a gorge formed by a retreat waterfall. The beck water is saturated with lime which is redeposited as calcite to form the tufa which characterises the waterfalls at Gordale and downstream at Janet's Foss.

Limestone pavements are a particularly well-developed feature at the head of Malham Cove and within the uplands surrounding Malhamdale. Further conspicuous surface features include the funnel-like depressions known as shakeholes, swallowholes or sinks.

In addition to the above ground landscape, an extensive underground landscape of cave systems exists in the Great Scar limestone. Water, sinking into the ground within the Great Scar limestone, re-emerges above the impervious slate layer below.

Thin seams of coal occur within the shale of the Yoredale series to the north. Coal has in the past been extracted on the summit of Fountains Fell.

The River Aire has its origins above Malham Cove and flows in a southerly direction for 6-7km leaving the National Park at Bell Busk.

Dales Fringes

The dales fringes represent a transitional area between the uplands of the Yorkshire Dales and the lower lying areas to the south and south west. Mainly overlying a mixture of gritstone and limestone, the principal influences in the lower lying parts of the fringe areas are the overlying deposits of boulder clay or glacial drift. At an elevation of between 200 and 300 metres AOD these deposits form oval or round domed shaped hills, known as drumlins, which significantly shape landscape character.

Parts of the fringe areas, particularly in the north, are shaped by the Craven faultlines. The North Craven Fault follows the approximate line of the north eastern edge of the area north of Settle and marks a change in the underlying geology from limestone to the north and east to Millstone Grit, Permian and Triassic sandstones, Westphalian, Stephanian and Lower Westphalian coal measures to the south and west, while limestone extends down into the valleys of Clapham and Austwick Becks. The South Craven Fault also crosses the area in the vicinity of Austwick and Clapham. This change in underlying geology is reflected in a marked change landscape character and vegetation patterns between the transitional slopes and the adjacent uplands.

+ Historical and Cultural Influences

Limestone, with its light covering of woodland, supported hunter-gatherers and early farming. The Mesolithic period (8000-2500 BC) saw the beginnings of permanent settlement and early woodland clearance, and the Neolithic period (3000-1500 BC) marked the beginnings of farming and further woodland clearance. In the Bronze Age, pollen evidence suggests that woodland clearance was less intense than in the preceding Neolithic period or the Iron Age that followed. Bronze Age remains include the stone circle at Bordley on the east of Malham Moor and a Bronze Age barrow at Seaty Hill. Further expansion of open ground occurred in the Iron Age and good examples of early Iron Age enclosures and numerous huts are visible at Malham.

The remains of the legionary size (8.2ha) marching camp on Malham Moor is thought to date from the Roman governor Cerialis's campaign to conquer the Brigantes in the first century AD.

The lower dales were settled by Angles in the 7th and 8th century and later by Danes. Airton, Hanlith, Calton and Malham were founded Angles, whilst Kirkby Malham is of Danish origin. The last major period of settlement came in the 10th century with the arrival of the Norse Vikings, who settled in scattered farmsteads on Malham Moor.

Following the Norman Conquest, the Percys of Northumberland were given much of the dale and their tenants, chiefly the Malhams and the Otterburns, made generous grants of land to Fountains Abbey. The Mauleverers and other benefactors similarly endowed Bolton Priory. The Abbey of Dereham in Norfolk was given Kirkby Malham church and property at Calton and Scosthrop. Between them the monasteries owned more than two thirds of the dale. At the dissolution the Fountains land came to the Greshams and the Bolton lands to the Lamberts who between them eventually came to own most of the dale.

The Cistercians were noted for keeping sheep; sheep kept on Fountains Fell by the monks of Fountains Abbey were driven to the monastic grange at Kilnsey in Wharfedale for washing and clipping. The wool was then transported to Fountains, from where some of the wool was exported to the continent.

Little evidence of the past monastic domination remains within the present day landscape except the monastic routes over the hills, the stone boundary markers and the terraces of arable fields. The walled track Mastiles Lane, over Malham Moor, is a fine example of a monastic route linking Fountains Abbey with its estates in Kilnsey, Malham and the Lake District.

A need for more farmland in the Middle Ages led to further cultivation of the hillsides creating further strip lynchets. The majority of parliamentary enclosures were carried out between 1760 and 1830. Fields were improved by the spreading of lime, burnt in the kilns before spreading over the fields. The kilns tended to be built near limestone outcrops and within carting distances of supplies of coal from the Yoredale seams.

Industrial development in the 18th century took the form of cotton mills using waterpower. In Malhamdale the manufacture of cotton was introduced in the latter half of the 18th century and new mills were built by the becks, often on the site of monastic corn mills, as at Malham, Airton and Kirkby Malham. However, by 1847, the mill at Malham had failed, as the waterpower was insufficient to support the developing textile machinery. The mill at Malham has now gone but Scalegill Mill north of Kirby Malham remains and the mill at Airton survives and has been converted into flats.

Malham was a centre for mining with calamine and copper mined at Pikedaw, lead on Malham Moor and coal pits on Fountains Fell. At times miners from Swaledale worked at Malham and the minerals were taken to Gargrave for shipment on the canal.

Despite periods of industrial activity, pastoral farming of sheep (Dalesbred, Swaledale and half bred) and cattle has been the dominant activity that has shaped the present day landscape.

Mass tourism, which began in Victorian times with the coming of the railway, forms a key part of the present day economy and is centred upon Malham. Malham has the Yorkshire Dales National Park Centre, together with a number of pubs, cafes and a small selection of craft and outdoor shops. The extensive Malham Tarn estate above the head of the dale was presented to the National Trust in 1946 and the house is now leased as a field studies centre. Camping and caravanning sites are found at Gordale and Malham.

In addition to Malham, the villages that fall within the southern and south western fringes, including Clapham and Austwick, provide low key facilities for visitors including pubs and cafes and are easily accessible from the West Yorkshire conurbation and towns of Lancashire via the A65, A56 and A682. There is a further National Park Centre at Clapham.

Malhamdale has been the source of inspiration for artists, from James Ward in the 18th century to John Piper in the 20th century. Thomas Girtin and K Weschke also painted Gordale Scar and James Ward's enormous canvas of Gordale, completed in 1815, hangs in the Tate Gallery. Anthony Devis, a watercolourist who painted under the patronage of Lord Ribblesdale, conveyed the pale, rainwashed atmosphere of Malham, as did J M W Turner. David Hockney has composed a photomontage of Gordale. Wordsworth wrote two poems, entitled Malham Cove and Gordale as part of a group of poems called 'Pure Elements of Water', and John Ruskin referred to the area in 'Prosperina' of 1875. The scenery of Malhamdale also inspired Charles Kingsley's book, 'The Water Babies'.

+ Buildings and Settlement

Within Malhamdale the Anglian settlements of Carlton, Otterburn, Airton, Hanlith and Malham and the Danish settlement of Kirkby Malham are all contained within a valley five miles in length. None of these settlements is large, although Malham is well developed for tourism including within its setting the spectacular and nationally renowned examples of limestone scenery at the head of the dale. The scattered farms on Malham Moor to the north of the cove were originally established by Norse Vikings in about 900 AD. The quarries on Embsay Fell, Rylstone Fell and Roughshaw flanking the southern valleys supplied Millstone Grit for building which predominates in the south of the area although in the north of the area limestone with large gritstone cornerstones becomes more frequent.

A number of settlements are concentrated along the southern and south western perimeter of the National Park. Many of the settlements that influence the character of the Park straddle its boundaries eg Clapham, Long Preston and Embsay, or fall just outside its boundaries, e.g. Hellifield, Gargrave and Skipton.

Clapham, a village divided by Clapham Beck, was largely reshaped by the Farrars in the early 19th century. An Anglian settlement, it was granted a market charter in 1201. The top end of the village was transformed in about 1833 by the Farrars who demolished several buildings, carried out extensive tree planting alongside the beck, re-routed roads and dammed the beck to flood 8 acres of land for a lake in the grounds of Ingleborough Hall. Buildings are generally of limestone rubble with slate or stone slate roofs.

Austwick, a Norse settlement whose name means the 'eastern settlement', is sited in the valley of Austwick Beck. The village straggles along lanes and around small greens and is influenced by Austwick Hall at the Town Head.

Long Preston, on the southern fringe of the National Park, situated on both the railway between Skipton and Settle and the A65 between Leeds and the Lake District, is situated on Long Preston Beck on the valley side of Lower Ribblesdale.

The southern valleys enclosed by Winterburn Moor, Rylstone Fell and Flasby Fell play host to the small gritstone settlements of Hetton, Rylstone, Cracoe and Flasby. Embsay straddles the National Park boundary on the southern fringes of Embsay Moor.

+ Land Cover

The combination of outstanding limestone scenery with the wealth and diversity of wildlife habitats and cultural features makes the Malham area particularly special. A large part of the area between Malham Cove and Arncliffe in Littondale has been designated an SSSI, a designation which extends into the dale head area below the cove. Within this area, which is of outstanding geological and biological interest, there are freshwater systems of international significance and nationally important calcareous grasslands, limestone pavement, fen and mire habitats. The combination of features makes the area particularly significant as an educational resource.

The vegetation is predominantly grassland maintained by the grazing of sheep, cattle and locally by rabbits supporting a great variety of flowering plants. Large areas of lime rich soils support nationally scarce species. A characteristic of the area is the often intimate mixtures of calcareous, neutral and acidic grassland types. The area is in places rich in metals and has supported small scale mineral workings in the past, the spoil remains supporting further species. The area also supports a variety of bird and invertebrate species.

In addition to the Malham-Arncliffe SSSI, designated sites of geological/geomorphological interest include Clints Quarry east of Malhamdale and School Share Section, to the west of Malhamdale.

Scattered hay meadows occur within Malhamdale and within the dales fringes but are not of sufficient quality to receive designation.

A number of areas of ancient woodland survive within Malhamdale and the dales fringes. Most of these areas tend to be relatively small in size with concentrations in steeper beckside locations. The woodland at Janet's Foss is thought to be ancient, and is in the ownership of the National Trust. Species include sycamore and ash with a ground flora dominated by dogs mercury and ramsons. Further areas of ancient woodland occur around Kirkby Beck and Hanlith Gill Syke in Malhamdale, north of Clapham, Cleatop Park south of Settle, around Winterburn Beck and at Hollin Wood south of Rylstone. Areas of juniper also occur, clinging to limestone cliffs and forming areas of scrub on limestone pavements, eg at Gordale Scar.

+ Malhamdale and Southern/South Western Dale Fringes Landscape Character Areas

Landscape Character Types (Draft National Types in brackets)	Landscape Character Areas	Location
Poorly Drained Lower Hills and Dales (UDW)	Malhamdale	Malham Cove south to Airton
Poorly Drained Lower Hills and Dales (UDW)	Newton and Otterburn Moor	East of Settle, north of Long Preston, west of Airton and south of Scosthrop Moor
Poorly Drained Dale with Ancient Woodland (VPA)	The Southern Valleys Enclosed by Winterburn Moor, Rylstone Fell and Flasby Fell	Cracoe south west to Flasby and south east to Embsay
Poorly Drained Unwooded with Glacial Deposition (RCD)	South Western Dales Fringe	Fringe areas between Masongill and south of Austwick, and a separate area south of Settle to a point north of Long Preston
Poorly Drained Unwooded with Glacial Deposition (RCD)	The Southern Dales Fringe	Fringe areas between Long Preston in the west and Thorlby in the east and south of Airton and Winterburn to the southern boundary of the National Park

26. Malhamdale

┼ Key Characteristics

- Classic example of limestone faultline landscape of national importance enclosed by Great Scar Limestone upland to the north and gritstone moors to east and west.

- Dale relatively broad in upper reaches with gently sloping valley sides stopping abruptly at the line of the Great Scar limestone escarpment; more narrow and enclosed in lower reaches, with often steep banks to beck.

- Huge natural amphitheatre at Malham Cove, 70m high, dominates Malham village and the open dale head. Gordale Scar, with its towering limestone walls, is cut into the dale head limestone escarpment.

- Significant deeply incised wooded tributaries drain the valley sides.

- Well treed with mixed and deciduous species in lower reaches, concentrated within gills, on steeper slopes by river and around settlements; less wooded with increasing elevation.

- Pastoral landscape of light limestone walls and barns with hedgerows more frequent in lower dale. Historic pattern of drystone walls and walled lanes climbing the hillside is a dominant feature of the more open dale head.

- Traditional settlements of largely Anglian pattern constructed in gritstone and limestone, the latter prevalent in the upper reaches of the dale, and some buildings are rendered/pebbledashed and painted white.

- Visitors have significant visual effect upon Malham and access roads in busy periods.

┼ Landscape Character

Malhamdale is a broadly u-shaped dale orientated in a north-south direction overlying limestone. The Mid Craven Fault cuts across the landscape from west to east dividing Great Scar limestone of the uplands to the north from the Bowland shale and reef limestone which underlie the dale, creating the dramatic landscape for which the dale is nationally renowned. The dale is enclosed by the Great Scar limestone upland to the north, and the contrasting character of the more elevated gritstone uplands of Kirkby Fell/Scosthrop High Moor to the west and lower Calton Moor to the east. The dale head stops abruptly at the long escarpment and scars of Great Scar limestone into which are cut the impressive features of Malham Cove and Gordale Scar.

The huge natural amphitheatre of Malham Cove, thought to have been eroded back from the faultline by an unusual combination of erosion by ice, glacial meltwater and possibly underground water, rises 70m from the valley floor and dominates the open dale head and views north from Malham village.

To the east, Gordale Scar, a narrow gorge with towering limestone walls formed by Ice Age meltwater, extends for about 1½ km into the Great Scar limestone. It is drained by Gordale Beck, which flows partly underground, but which after heavy rain forms dramatic waterfalls in the gorge. Beyond the scar, the beck flows over a further series of waterfalls surrounded by ancient woodland at Janet's Foss, to the south of Gordale Lane, where the falls flow over an apron of Tufa (pure calcium carbonate) some 4 metres wide.

The winding Malham beck drains the dale. In the upper reaches the dale is relatively broad and the beck follows a stony shallow course within the valley floor with the valley sides sloping gently towards it. In the lower parts of the character area the valley sides close in creating a sense of enclosure and steep slopes down towards the beck, although the valley occasionally opens out into a very narrow floodplain. The beck is joined by a number of significant tributaries including Gordale Beck, Hell Gill Syke, Hanlith Syke and Cow Close Syke, which together drain the eastern side of the upper dale and

Tranlands Beck and Summer Gill Beck/Kirkby Syke that drain the western side. Many of these gills are steeply incised into the valley side and all are wooded with deciduous or mixed woodland creating a distinctive pattern to the valley sides.

Tree cover including mixed and broadleaved woodland is significant with the lower dale, concentrated within gills, on steeper slopes by the river and around settlements. A few areas of ancient woodland occur in the north east of the character area and around Kirkby Malham. Principal tree species are ash and sycamore, with the former dominating within countryside and the latter associated with settlements. With increasing elevation the dale becomes more open and less wooded and the influence of limestone in the walls, buildings and geological features becomes more dominant. In these areas trees still occur on boundaries within fields, beside roads and around settlements. Small parklands associated with the halls at Hanlith and Accraplatts add to the extent of tree cover locally.

The dale is principally a pastoral farming landscape of light limestone walls enclosing improved pastures and occasional hay meadows grazed by sheep and cattle scattered with field barns. The dale is divided into a patchwork of fields of a wide range of sizes and often irregular in shape. Hedgerows are intermixed with walls in the lower dale but these diminish in number with increasing elevation. Whilst in the lower dale the pattern of walls is diluted by the presence of hedges and the extent of tree cover, the upper dale is increasingly open and the historic pattern of sometimes crumbling limestone walls on the hillsides below the cove is a dominant feature. Walls also line the minor roads and green lanes creating distinctive patterns winding up the hillsides, and this combination of walled enclosures and walled lanes contribute significantly to the strong sense of history that pervades the dale. Hay meadows are a feature of the dale with a concentration occurring on the west facing slopes. Small patches of bracken are an occasional feature and scattered small rocky outcrops and loose boulders occur in fields at the dale head.

Settlements within the dale are well treed and generally of inward facing nucleated form around a green typical of Anglian settlements, although the settlement of Kirkby Malham is of Danish origin with a distinctive layout of houses aligned in rows to face south down the valley. Beckside mills, reflecting the valleys industrial past are a feature of a number of settlements. Buildings are constructed in a mixture of gritstone and limestone, limestone being more frequent in the upper dale where it is supplemented by gritstone cornerstones. Roofs are of slate or stone slate. Some buildings are pebbledashed or rendered and painted white. The church hall in Kirkby Malham features a red sandstone, which would have been specially brought in to the dale, while the Victoria Pub in the same village features a hard white limestone. Although most housing within the dale is constructed in traditional style, occasional suburban style properties occur eg at Airton.

A minor road follows a winding course up the dale, frequently lined with trees and hedges in the lower part of the character area. The roads follow the route of the former mineral road to the dale head. From the dale head walled lanes rise up onto the fells on either side of the cove, following the medieval or monastic routes. Minor walled roads also climb the dale sides from Kirkby Malham.

Malham, with it's National Park Centre, shops and cafes, is one of the most important centres for visitors within the Yorkshire Dales and acts as a honeypot for visitors within Malhamdale, the other settlements being relatively free of visitor pressure. Visitors and their cars have a significant visual effect on the settlement particularly on summer weekends and visitor pressure has led to the paths either side of the cove being soundly constructed in stone. Other than the effects of visitors and their traffic, few other detractors occur within the dale other than local impact of overhead lines, although a large structure (a farm shed?) in the course of construction on the valley side south of Malham could impact significantly on views from the cove when complete.

27. Newton and Otterburn Moor

+ Key Characteristics

- Open, hilly, sparsely settled transition landscape, falling away gradually from elevated Scosthrop Moor to lowlands to south and west.
- Oval or round domed hills formed by glacial deposition drained by small becks which thread a winding course through the hills, occasionally bounded by linear deciduous woodland.
- Large regularly shaped coniferous plantations are superimposed upon the landscape, detracting significantly. Small areas of deciduous woodland are an occasional feature.
- Medium to large regularly shaped field divided by limestone and gritstone walls enclose improved pasture and occasional hay meadows.
- Varied land cover includes patches of bracken, heather and grass moor. Small disused quarries pepper the area.
- Relatively inaccessible with few roads; a network of walled green lanes, tracks, footpaths and bridleways cross the area.
- Small traditional farms concentrated on boundary areas; central part of area is sparsely settled.

+ Landscape Character

Newton and Otterburn Moor, despite it's name, is an open, hilly and sparsely settled transition landscape which falls gradually from the elevated landform of Scosthrop Moor to the north and the lowlands of the Aire and Ribble valleys to the south and west. At a general elevation of between 200-300 metres AOD, the area comprises a series of oval or round domed shaped hills formed as a result of glacial deposition of boulder clay and drift overlying an area of limestone bedrock to the east and gritstone to the west.

The area is drained by a series of small becks, which thread a winding course through the hills, occasionally bounded by linear deciduous woodland. Waterfalls are an infrequent feature of the becks. Scattered trees marking farms and field boundaries are infrequent. Small areas of deciduous woodland are an occasional feature. Superimposed upon this largely open landscape are some large coniferous plantations, the most significant being Crook Beck and Blacks Plantations, whose forms do not respect the topography and which appear alien.

The area is divided into medium to large regularly shaped fields by limestone and gritstone walls of the enclosure period, Newton moor top, which at 291m is the highest hill within the area, forming one very large enclosure. Except for the network of footpaths, bridleways, walled green lanes and tracks which cross the area, the moors are accessible only from Scosthrop Lane, which crosses the area on route between Airton and Settle; from High Mill Lane, which runs along part of the northern side of the character area; from Long Preston by the dead end Edge Lane and from Settle by the dead end Mickle Lane.

The area is settled by small traditional farms, which tend to be concentrated on the southern, western and eastern edges of the character area, the central part of the area being very sparsely settled. Farming is a mixture of improved pasture and limited areas of hay meadow and rough grazing. Land cover includes patches of bracken and small areas of grass moor and upland heath.

While the coniferous plantations detract significantly from the area, minor detractors are few, limited to the small disused quarries that are peppered across the area.

An area of shakeholes occurs to either side of Scosthrop Lane in the north of the area.

28. The Southern Valleys Enclosed by Winterburn Moor, Rylstone Fell and Flasby Fell

┼ Key Characteristics

- Valleys overlying limestone and gritstone masked by glacial deposition and enclosed by gritstone fells, whose character dominates.
- Wooded craggy gritstone outcrops on the fell sides and skyline topographic features on fells lend character to the valleys.
- Valleys lack strong character and have gentle longitudinal gradient with no distinct dale head, each flowing almost imperceptibly into the next, although pockets of quiet unspoilt landscape occur.
- Valleys act as transportation corridor for roads and the mineral railway. Unscreened limestone quarries at Swinden and Embsay detract significantly; other detractors absorbed in distant viewpoints by tree cover.
- Strong natural pattern of deciduous woodland (some ancient) following gills and becks supplemented by small, regularly shaped blocks of coniferous and mixed woodland on the valley side and extensive conifer plantations on fell sides give a densely wooded effect, contrasting with open fell tops.
- Regularly shaped fields of fell sides more apparent than historic fields near settlements whose pattern is often masked by tree cover.
- Small areas of designed parkland landscapes occur.
- Settlements, constructed in gritstone with stone slate roofs, have their character diluted by modern buildings on their outskirts.

┼ Landscape Character

The main valley of Flasby Beck, (also known as Hetton Beck and Scirso Gill Beck at different stages on its course) is orientated in a north east/south west direction between the dark gritstone upland areas of Winterburn Moor (to the north west), Rylstone Fell (to the east) and the separate upland of Flasby Fell (to the south east). Flasby Beck flows south west into the River Aire and is joined by Calton Gill Beck, which drains the northern part of the valley between the latter two fells as far as its watershed south of Scale House. Sandy Beck (becoming Eller Beck) drains the southern part of this valley, to cross the National Park boundary and flow through Skipton. The southernmost edge of the character area adjoins the landscape type identified within the Landscape Strategy for Lancashire as type 14 'Rolling Upland Farmland' comprising landscape character area 14b 'Lothersdale and Cringles'.

The valleys overlie principally limestone bedrock although the valley of Eller Beck/Calton Gill Beck overlies gritstone. Superimposed upon the underlying bedrock are glacial deposits of boulder clay and drift that tend to mask the effect of the variation in underlying bedrock to create an area of consistent character.

The character of the valleys tends to be dominated by Rylstone Fell/Embsay Moor to the east and Flasby Fell to the south; Winterburn Moor to the west rises more gradually and the moor tops are less visible from within the valleys. The fells themselves are dominated by a number of landmark topographic features that create distinctive skyline forms, such as the conical forms of Sharp Haw and Rough Haw on Flasby Fell, the upswept form of Embsay Crag, and the craggy outline and cross on Rylstone Fell. Other important craggy outcrops on the valley sides include the wooded crags of Embsay and Crookrise.

Each of the valleys has a very gentle longitudinal gradient and no distinct dale head area, each flowing almost imperceptibly into the next and into Wharfedale to the north. As such the valleys form an obvious transportation corridor between the main transport routes to the south (including the A65 and A59) and Grassington in Wharfedale to the north. The valley of Eller Beck/Calton Gill Beck accommodates both the B6265 to Grassington and the railway, which formerly serviced Grassington but now acts only as a mineral railway for the Swinden limestone quarry. The minor road between Gargrave, Hetton and Cracoe (where it joints the B6265) occupies the valley of Flasby Beck.

The valleys themselves lack the strong distinctive characteristics of many other dales and in many areas tend to be strongly influenced by the significant detractors, including the Swinden limestone quarry in the north of the area; the major limestone quarry to the south of the National Park boundary at Embsay, which is removing an entire hillside; the roads and open, unfenced railway; and Embsay Moor reservoir. However the tree cover allows many of these detractors, with the exception of the quarries, to be absorbed into the landscape such that they loose significance with distance, and pockets of quiet unspoilt landscape occur particularly at the lower end of the valley of Flasby Beck.

Tree cover within the valley is extensive, the strong pattern of natural deciduous woodland following the gills and becks supplemented by small, regularly shaped blocks of coniferous and mixed woodland on the valley side and extensive coniferous plantations such as those planted below Crookrise Crag and on the side of Flasby Fell. Ancient woodland occurs on the southern fringe of the character area and within the valley of Eller Beck/Calton Gill Beck. The wooded character of the valleys contrast sharply with the open fell tops. This tree cover is supplemented by trees on field boundaries, within fields, on craggy outcrops, around farms and hamlets and within frequent hedgerows. Principal species are ash, sycamore and thorn plus planted conifers and occasional birch.

The largely improved pastoral landscape grazed by cattle and sheep is divided into a pattern of often regularly shaped fields on fell sides, and a more historic pattern of strip fields (with some areas aligned coaxially) on lower valley sides, within the valley bottom and around settlements. Due to the tree cover concentrations in these areas the historic boundary pattern is less readily apparent than the regular pattern of fields, divided by blocks of conifers, that are visible on fell sides. The mixture of boundary types between broken and overgrown hedges, fences and limestone or gritstone walls within the valley bottom tends to further dilute the pattern whereas fell side enclosures are mainly walled, emphasising their presence. The pattern of walls extends onto the sides of Winterburn Moor but stops on the edge of Flasby and Rylstone fells where the pattern changes to one of extensive enclosures or of open moorland.

In addition to the tree and woodland cover and improved pasture small patches of other habitat types occur, including marshy grassland in the valley bottom, occasional hay meadows around Flasby Beck, and patches of bracken and rough grazing on the valley side. Although there are a number of stone field barns in the area their presence is not always obvious due to the significant tree cover.

Small areas of designed parkland landscape occur in association with Fleet House, Scale House, Embsay Kirk and Flasby Hall contributing local variation and interest. Historic features include the pillow mounds west of Friars Head and fish ponds at Rylstone.

The main settlement within the area is Embsay, which is bisected by the southern boundary of the National Park. Embsay is a gritstone settlement of small cottages and occasional barn conversions strung out along the valley side that has been extended significantly by modern development, particularly to the east. The settlement looks out onto the back of the bare rock walls and notched profile of the limestone quarry to the south which is extremely intrusive.

Villages, each constructed close to watercourses in gritstone with stone slate roofs, include Hetton, Rylstone, Cracoe and Flasby and the hamlet of Fleets. The character of a number of these villages has been diluted by the addition of properties of suburban style, and a few properties of this type also occur within open countryside detracting from the area. Farmsteads, generally sited on the valley sides are scattered throughout the area, a number taking the form of long houses with the barn attached to one end of the house.

29. South Western Dales Fringe

Key Characteristics

- Sloping transition area of varied width and gradient between limestone and gritstone moorland rising to Ingleborough, Gragareth and Scosthrop High Moor on the south western edges of the National Park and drumlin fields beyond the Park to west.
- Faultlines cut across the area, which is underlain by a varied geology of Millstone Grit, sandstone, coal measures and limestone.
- Outward looking area allowing long distance views across lowlands to west and south west.
- Slopes drained by parallel springs interspersed by deeply incised v-shaped gills and the lower reaches of the u-shaped valley of Crummackdale.
- Neat and well maintained landscape, mainly improved pasture, divided by hedges and drystone walls of varied rock types, which extend on to adjacent uplands.
- Occasional barns and strip lynchets.
- Generally open but with pockets of natural woodland or mixed or conifer plantations concentrated in gills and associated with estates and parklands. Elsewhere tree cover occurs as scattered field boundary trees, in small copses or associated with settlements.
- Settlements in beckside locations, often associated with halls and parklands, buildings generally of limestone with slate or stone slate roofs. Modern development has occurred particularly on outskirts of Clapham.
- Strongly influenced by the presence of roads on Park boundary.

Landscape Character

The south western fringes of the National Park between Austwick and Masongill, to the north west of Ingleton, and a separate area extending south from Settle to Long Preston, is a transition landscape between the limestone and gritstone moorland (rising to Ingleborough, Gragareth and Scosthrop High Moor) on the south western edges of the National Park and the area beyond the National Park boundary identified by the Landscape Strategy for Lancashire Landscape Assessment as area 13b, 'Bentham – Clapham Drumlin Field' and area 11b 'Long Preston Reaches'. This area slopes down towards the south west from the moorland edges at a maximum of 270m AOD to the generally lower landscape of the drumlin field at between 150m and 200m AOD. The width of the area varies between 1.5km wide at Clapham to 0.2km to the south of Ingleton. In some areas the whole of the transition area is included within the National Park boundary, whilst in other areas (such as between Clapham and Ingleton) the lower slopes around Newby and Cold Cotes are excluded from the National Park. The Ingleton Glens character area cuts across the area at Ingleton, whilst the Lower Ribblesdale character area cuts across the area at Settle, effectively dividing the character area into three separate areas.

The North Craven Fault follows the approximate line of the north eastern edge of the character area north of Settle and marks a change in the underlying geology from limestone to the north and east to Millstone Grit, Permian and Triassic sandstones, Westphalian, Stephanian and Lower Westphalian coal measures to the south and west, while limestone extends down into the valleys of Clapham and Austwick Becks. The South Craven Fault also crosses the character area in the vicinity of Austwick and Clapham. This change in underlying geology is reflected in a marked change landscape character and vegetation patterns between the transitional slopes and the adjacent uplands.

The topography varies between gently graded undulating slopes to the north of Ingleton and steeper slopes to the south, and the flatter valley floor of lower Crummackdale. Occasional drumlins occur on

these moorland slopes, creating the hummocky topography present around Thornton in Lonsdale. Limestone outcrops as scars at Clapdale on the slopes above Clapham.

The slopes are drained by parallel springs flowing in a south westerly direction, interspersed occasionally by deeply incised v-shaped gills, such as the well wooded Clapham Beck which drains the side of Ingleborough, the much smaller wooded dry valley of Jonkin Beck to the south east of Ingleborough and the open glaciated u-shaped valley of lower Crummackdale.

The undulating lush green and sometimes hummocky rounded form of the slopes are in marked contrast to the flat topped, steep edged form of the limestone uplands with their often prominent white scars and the summit of Ingleborough forming a backdrop to parts of the character area. The character area is outward looking, the more elevated slopes allowing far reaching views across the Forest of Bowland area to the south and west.

This is a neat, well-maintained landscape of small to medium sized improved pasture and silage fields, with occasional hay meadows. The fields form a patchwork of rectangular and square shapes divided by sandstone, gritstone or limestone walls and clipped and overgrown hedges of thorn and elder. In the Masongill area, the variation underlying in geology is reflected in the composition of the sandstone walls that have a pinky hue. The pattern of fields extends onto the adjacent upland areas, the boundary of which is generally marked by a change in the form of these fields to large regular fields of the enclosure period although on Black Bank Side on the edge of Ingleborough, fields stop at the character area boundary. In the Austwick area there is a pattern of long narrow strip fields of a medieval pattern. Strip lynchets are a feature of the valley side to the west of both Austwick and Clapham. Barns, some in a poor state of repair, are occasional features of the area.

Within the area, woodland is generally sparse, and where it occurs is found in small plantations (of mixed woodland or conifers) concentrated on the lower slopes and within gills, around settlements and associated with the estates and parklands that occupy the area. The most significant area of tree cover is found around the valley of Clapham Beck, where the natural deciduous woodland of the gill has been supplemented by extensive mixed plantings which surround the lake created by the damming of Clapham Beck and which form the backdrop to the sweeping areas of parkland of Ingleborough Hall and Clapham. Smaller areas of woodland (with fine specimen trees) are associated with Austwick Hall, Masongill House and Mearbeck House. Elsewhere the landscape can be quite open and tree cover occurs in small copses and as scattered specimens (mainly sycamore and ash) on the field boundaries.

The principal settlements of the character area are Austwick and Clapham, each sited within valleys in beckside locations and each influenced by the character of their respective halls and parklands. Buildings in this area are generally of limestone rubble with either slate or stone slate roofs. At Clapham, buildings are constructed in limestone rubble with large gritstone cornerstones. Significant areas of modern development have occurred on the outskirts of Clapham, including garages and housing ranging from pebbledashed bungalows to modern gritstone and limestone rubble detached houses. Smaller settlements include Masongill, Thornton in Lonsdale and the hamlets of Newby Cote and Westhouse. Thornton in Lonsdale is centred on a gritstone church with an unusual spire of stone slates, and a white painted pub with a slate roof.

The area is strongly influenced by the presence of roads, including the A65, which forms the National Park boundary in the northernmost and southernmost parts of the character area, and the B6480, the ‘old road’ that forms the boundary to the character area between Ingleton and south of Clapham. The B6255 road also runs up Crummackdale linking Austwick with Helwith Bridge in Ribblesdale. Narrow walled minor lanes cross the character area linking hamlets and villages north of Ingleton. Scattered farms, often with large farm sheds and some with silos, occur throughout the area.

In addition to the main roads, minor detractors include the small disused quarry visible at Cote Haw near Newby Cote, post and wire fencing and overhead electricity lines.

30. The Southern Dales Fringe

Key Characteristics

- A transition landscape between limestone/gritstone uplands of Yorkshire Dales and lowland river valleys to south.
- Distinctive, steeply rolling undulations including areas of drumlins set against the backdrop of elevated moorland. The River Aire follows a winding course through the drumlin field.
- Sense of prosperity with halls, parklands, large houses and large farms, the parklands having a strong influence on the landscape. Scattered farms and hamlets constructed in gritstone and limestone.
- Well treed with small plantations of deciduous and mixed woodland, including areas of ancient woodland. Trees mark the line of rivers and streams. Coniferous plantations on adjacent uplands contribute to well-wooded character.
- Improved pasture fields enclosed by a mixture of gritstone walls, fences and hedges, with infrequent barns.
- Quiet area that tends to be bypassed by visitors, except where the A65(T) forms the character area boundary.

Landscape Character

The Southern Dales Fringe is a rolling transition landscape between the limestone and gritstone uplands and dales of the Yorkshire Dales and the lowlands in the areas of Lower Ribblesdale and Airedale to the south of the National Park. The underlying geology of limestone is largely masked by the overlying boulder clays and glacial tills which have a more significant impact on the landscape.

The character area adjoins the landscape type 11 identified in the Landscape Strategy for Lancashire as 'Valley Floodplains' comprising the character areas 11b 'Long Preston Reaches' and 11c 'Aire Valley'; landscape type 5 identified as 'Undulating Lowland Farmland' comprising the character area 5f 'Lower Ribblesdale'; landscape type 13 identified as 'Drumlin Fields' comprising the character area 13a 'Gargrave Drumlin Field'.

The landscape, which lies at elevations of between 100 and 200m AOD, falls gradually to the south and is one of distinctive steeply rolling undulations including areas of drumlins, small round or oval hills created by the erosion and deposition of glacial ice, set against the backdrop of elevated moorland including Calton Moor, Flasby Fell, the forested edge of Rylstone Fell and Scosthrop High Moor. The more elevated parts of the area allow views out towards the lower land to the south and south west whilst within the lower lying parts of the area distant views to the south are limited by the undulating topography. Throughout the area the moors to the north are a constant presence.

The area is drained by the shallow and stony River Aire, which follows a winding course through drumlin fields in its lower reaches, by its tributary Winterburn Beck (which becomes Eshton Beck in its lower reaches) and by the becks flowing off the more elevated fells. A small circular tarn, Eshton Tarn, is located within a plantation to the north west of Eshton.

There is a sense of prosperity with a number of halls, parklands and large houses. Farmsteads are frequently large with a number of outbuildings. The parklands have a particularly strong influence on the landscape; Eshton Hall is associated with extensive mixed and deciduous woodland, and areas of parkland with fine specimen trees. Roads in this area are enclosed by coped mortared stone walls and metal fences and railings and lined with an avenue of mature trees. A further important area of parkland occurs in association with Newfield Hall.

The area is generally well treed. Woodlands occur in association with parklands and small mixed and deciduous plantations and copses likely to have been planted as game coverts are scattered across

the landscape. Ancient woodland occurs at Thorlby Springs and Woomber Wood although supplemented by coniferous planting. The coniferous plantations on the adjacent areas of upland, including Calton Moor and Flasby Fell, add to the well-wooded character of the lower lying areas. Woodlands also mark the line of rivers and streams, and trees mark hamlets and farmsteads. Scattered boundary trees occur throughout the area. Principal species include sycamore, ash, elder, hawthorn, rose, blackthorn with beech and other species not native to the locality occurring within parkland areas.

Farming is pastoral, with a high proportion of cattle. The pastures are generally improved with many cut for silage, although hay meadows are scattered throughout the area. The field pattern is a patchwork of open irregularly shaped medium sized fields although there are remnants of long narrow enclosures around settlements. Fields are enclosed by a mixture of gritstone walls, fences and well-developed hedges and this mixture, together with the complexity of the topography and amount of tree cover means that the boundary pattern is generally not an obvious feature of the landscape. Strip lynchets are visible on Middlesber Hill and within the parkland at Eshton. Barns are infrequent.

This is a quiet area; most roads bypass the area to the south although the busy A65 forms the southern boundary of the character area between Thorlby and Gargrave and passes through the character area again briefly at Long Preston and in this location it has a strong influence. The winding minor road from Gargrave to Malham passes through the area often enclosed by high hedges and can be a busy through route for tourists at weekends. Otherwise it is an area with few specific attractions for visitors, other than pubs and shops in Long Preston and the walking in the pleasant gentle landscape, although in this respect it tends to be overshadowed by the spectacular limestone scenery further north.

The major settlements, with the exception of Long Preston which falls almost wholly within the National Park, tend to fall to the south of the National Park boundary on the A65 corridor, including Gargrave and Hellifield. Otherwise, settlements are limited to scattered farms and hamlets, including Thorlby, Sturton, Eshton, Winterburn, Calton, Kirk Syke and Otterburn. Settlements are constructed mainly in gritstone although in the north of the area limestone rubble with large gritstone cornerstones is more frequent. New buildings where they occur have generally been constructed in a style that is in keeping with the local vernacular.

Detractors, other than the A65 and its traffic as previously mentioned, are limited to the local effects of overhead electric lines, large farmsteads and silage towers. The railway passes close to the southern boundary of the National Park between Bell Busk and Otterburn but is not a significant detractor.