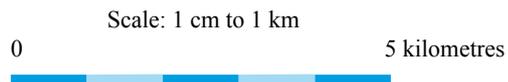
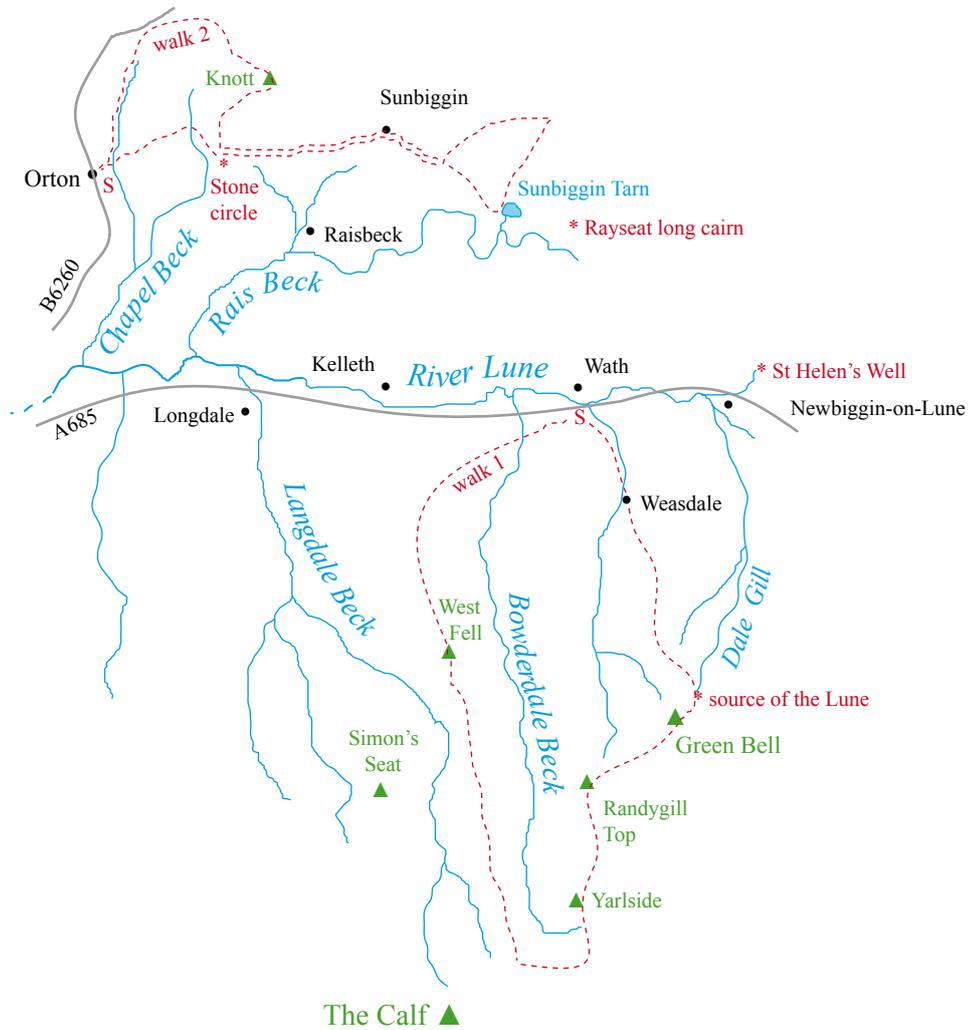


**CHAPTER 1:
Northern
Howgills and
Orton Fells**



The River Lune ...

A great oak may grow from a single acorn but great rivers need very many sources. For some reason, we like to distinguish one of these as *the* source of the river, although there are no agreed rules for doing so. The determination of the source of the Lune has been made easy for us by the fact that its name continues far upstream along one particular branch among its many headwaters, to the helpfully named village of Newbiggin-on-Lune, 9km east of Tebay.

Above Newbiggin-on-Lune, various becks run north off Green Bell to form the infant Lune. Of these the longest and highest is Dale Gill, arising from a spring 200m northeast of the Green Bell summit (605m). Since any rain falling just north of Green Bell will drain into the Lune we may regard Green Bell itself as our sought-for source. Green Bell is an appropriate name for the rounded, grassy hill but then so it would be for most of the fifty or so other named summits in the **Howgills**. Green Bell, however, is rightly honoured with a trig point, one of only four in the Howgills (the others being at Winder, Middleton and The Calf).

Dale Gill runs 4km north from Green Bell, changing name twice (to Greenside Beck and Dry Beck), to become the Lune at Newbiggin-on-Lune. Here, Bessy Beck joins the Lune after refreshing the three lakes of a trout fishery. Bessy Beck may be named after Elizabeth Gaunt of Tower House, near Brownber Hall, who in 1685 gained the dubious distinction of being the last woman to be burned at the stake in England. Although she may now be regarded as a virtuous, charitable lady only too willing to help those in need, the fact seems to be that she knowingly helped someone involved in a plot to assassinate Charles II. The penalty for high treason duly followed.

Newbiggin-on-Lune is spread out along what is now a large lay-by,

Two pages before: Green Bell trig point, looking over Weasdale.

Right: The view north standing at the source of the Lune on Green Bell.

The **Howgills** is the name given to the homogeneous group of hills in the triangle of about 100 sq km between Ravenstonedale, Sedbergh and Tebay (or between the A685, the A683 and the Lune valley).

The hills are well drained, rounded and grassy, with no bogs and little heather. There are no walls above the pastures and only one fence. There are significant rocks in only two places, Cautley Crag and Carlin Gill. So, the Howgills is a place for striding out along the ridges – but not across them for then you would have steep eroded slopes to contend with.

The highest point is The Calf (676m), from which the ridges radiate to over twenty further tops above 500m. Walking is easy and airy but, according to *Walking Britain* (2005), edited by Lou Johnson, “the Howgills have little interest underfoot ... The reward for scaling the heights comes from the superb views of the Northern Pennines, the eastern fells of the Lake District, and the higher peaks of the Yorkshire Dales”.

This, however, is the wrong frame of mind for tackling the Howgills. The Howgills must be appreciated on their own merits. There is no need to be envious of the other peaks (yes, the views are good but a little distant to be “superb”). As often the case, Harry Griffin captured the required spirit best in one of the last of the Country Diary vignettes, usually about the Lake District, that he contributed for over fifty years to the Guardian: “the Howgill Fells have always entranced me. Compared with Lakeland, overrun by the hordes and vastly over-publicized, they have retained their quiet, unspoiled beauty.”



bypassed by the A685 but not by far enough, as it is quite noisy. At the eastern end of Newbiggin-on-Lune is the old St Helen's Well, which some people insist is the source of the Lune, because it is never dry, unlike the Green Bell springs. As this would add dignity to the Lune's birth, it deserves investigation. I was informed at the Lune Spring Garden Centre that the well lies just across the A685 behind the chapel. The chapel, it transpires, is a small mound and the well just a seepage in the field, which is most uninspiring compared to the slopes of Green Bell.

The fledgling Lune turns west and after 2km reaches Wath, which most on-line encyclopedias assert is the start of the Lune, at the confluence of Sandwath Beck and Weasdale Beck. This seems absurd, as we have already passed Newbiggin, which insists it is on-Lune. The appendage, however, is a new one: the 1861 OS map has a simple Newbiggin. But the old map considers the stream, which the encyclopedias regard as Sandwath Beck, resulting from the merger of becks east of Wath to be the River Lune, as I have done.

Weasdale Beck, equal in size to the Lune at this point, runs north from near Randygill Top (624m) through the fine, deep valleys of Weasdale and Great Swindale. These valleys, however, are not as fine as the adjacent, parallel Bowderdale, through which flows Bowderdale Beck to join the now undisputed Lune 1km below Wath.



The Lune near Wath (Green Bell in the distance)

Bowderdale Beck

There is nobility in the simplicity of Bowderdale. What you see is definitely what you get: there are no hidden secrets. And yet it is a marvellous valley, running due north for 6km or so and forming the prototypical U-shape that illustrates the **effects of glaciation**. There are also fine examples of Holocene (that is, post-glacial) fluvial erosion, with alluvial fans, terraces, meanders and braided channels.

Bowderdale Beck runs uneventfully from the head of Bowderdale, 2km from The Calf, to the small community of Bowderdale and then to join the Lune. The region provides a typical Howgills walking area, with its long, open ridges and steep, grassy slopes, striped with sheep tracks, falling to an enclosed valley, empty of manmade objects apart from a few old sheepfolds. There is little excitement to be found on the ridge tops: Yarlside has a distinctive dome; Kensgriff a few crags; Randygill Top a small cairn; otherwise, there are just gentle rises that provide extensive views.

The **effects of glaciation** are widespread in Loyne. It has been covered with ice several times and in the last glacial period, ending about 10,000 years ago, all but the highest tops were under ice.

Glaciation has two general effects: erosion and deposition. The most apparent erosive effect is the scouring of valleys (such as Bowderdale), deepening and straightening them to form the characteristic U or parabolic shape. When ice accumulates in the lee of valleys, it may form bowl-shaped cirques with deep sides. Generally, though, Loyne rocks are too soft to provide the more spectacular glacial forms seen, for example, in the Scottish Highlands.

Deposits are in the form of till or boulder clay, that is, largish pebbles in clay dropped by the ice, and sands and gravel left by the actions of glacial meltwater. Drumlins – the rolling, hummocky hills formed from boulder clay – are common in Loyne. Sometimes, the deposits at the ends or sides of glaciers (terminal or lateral moraines) form barriers sufficient to change watersheds. The most intriguing deposits are erratics, which are rocks carried on glaciers and left in an alien landscape.

The detailed effects of glaciation are difficult to unravel, especially when they involve major changes such as the breaking through of watersheds, the formation of new flow directions as glaciers block one another, and the sudden release of huge volumes of meltwater.



Looking down Bowderdale

Walk 1: A Circuit of Bowderdale, including Green Bell

Map: OL19 (please read the general note about the walks in the Introduction).

Starting point: Near Wath on the road south of the A685 (685050).

There are three obvious routes between Bowderdale Foot and the head of Bowderdale – the west ridge, the east ridge, and the valley bottom. Higher mathematics shows that there are six loops possible.

The walk along the valley bottom should be experienced, but not on a first visit. Impressive though the symmetrical valley is, it becomes claustrophobic after a while. There is only one view and only the odd sheepfold to break the monotony. The west ridge, beginning with West Fell, is the better one, providing good views into Bowderdale and Langdale and, in the distance, an evolving panorama of the hills of the Lakes and Dales.

So begin by setting off southwest, past Brow Foot, to Bowderdale Foot and then onto the footpath that leads to West Fell and Hazelgill Knott. You will meet many sheep, a few ponies perhaps, and, only if you are really lucky (or unlucky, as the case may be), one or two other walkers.

Continue 2km south of Hazelgill Knott and, as the path begins to swing right (heading for The Calf), leave it to turn east to Hare Shaw and Bowderdale Head to the unnamed hill south of Yarlside. Head north over Yarlside, Kensgriff and Randygill Top, with distant views of Cross Fell, Wild Boar Fell, Ingleborough and the Lakes skyline.

Continue to Green Bell, where you may locate the spring that is the source of the Lune, just below some ruins off the Green Bell to Knoutberry path. As you wish, follow the fledgling Lune down or, better, the path over Stwarth, in both cases cutting across to Weasdale and thence to Wath (just follow the OS map through gates and fields: there are few reassuring signposts).

The distances are long but walking is easy apart from on the slopes of Yarlside. Route finding may be a challenge on the eastern ridge but the trig point on Green Bell is a reassuring presence.

Short walk variation: A short walk up Bowderdale is hardly possible without tackling its steep slopes, so instead head directly for Green Bell. Walk through Gars to Weasdale and then up Stwarth to Green Bell. Then, from the source of the Lune, follow Dale Gill to Dale Tongue and cut over to Weasdale and then back.



Looking up Bowderdale

The Lune from Bowderdale Beck ...

The Lune runs due west, more due than it used to as it was straightened to run alongside the A685 when it was rebuilt on the line of the old Newbiggin-on-Lune to Tebay railway after it closed in 1962. This seems an unnecessarily brutal way to treat the young Lune, just as it is making its way in the world.

Becks, such as Flakebridge Beck and Cotegill Beck, continue to enter the Lune from the south but very little water flows from the north. The old limestone quarries and limekilns that are seen on the slopes between Potlands and Kelleth hint at the reason for the dryness of the northern slopes. Limekilns, which usually date from the 18th or 19th century, were used to burn limestone to make quicklime. This was then slaked with water and used to reduce the acidity of pastures and also to lime-wash buildings. The limestone was tipped into the kiln from the top onto a fire of coal or wood, and then more coal and limestone layered on top. The open arch provided air to keep the fire going.

The members of Kelleth Rigg's herd of pedigree Blonde d'Aquitaine cattle look lime-washed too. Kelleth itself is a small village, recently enlarged by new building, aligned along the now quiet road by-passed by the A685. The Lune reaches the rather ornate Rayne Bridge, built of red sandstone. Well, the parapet and wall are of red sandstone – the bridge itself isn't, as a side view from the east reveals. The bridge was built in 1903 to replace one that required an abrupt turn on the road. Soon after Rayne Bridge, Langdale Beck joins the Lune.



The Lune at Kelleth

Langdale Beck

Langdale Beck runs north from The Calf for 12km through the deserted valley of Langdale to emerge at the small village of Longdale, close by the Lune. There is sometimes debate about which of Langdale or Longdale has been misspelled but they are surely different renditions of the northern vowel sound that we have in auld lang syne. Anyway, the dale is undoubtedly the langest in the Howgills.

The Calf is the focal point of the Howgills and from it there are extensive views in all directions. To the south, the Lune looks like a snail's trail entering Morecambe Bay, and circling around we see the Bowland Fells, Ingleborough, Whernside, Pen-y-Ghent, Baugh Fell, Wild Boar Fell, and Cross Fell. Most eyes, however, will be drawn westwards in the attempt to identify the classic Lakeland peaks, such as Crinkle Crags, Great Gable and Blencathra. The Calf itself is hardly a peak, being merely slightly higher than several nearby mounds. There is no bird's eye view into nearby valleys that the best peaks provide.

The Calf has many ridges leading towards it but it is closer to the southern point of the Howgills triangle than it is to the northern side. To the south there is one main ridge (from Winder by Arant Haw) but to the north there are many long, complicated, interlocking ridges, all very similar in appearance. Langdale Beck itself drains a vast area, with several significant tributaries creating deep gullies with ridges between them.

The apparently timeless appearance of the Howgills is misleading. Pollen evidence indicates that a few thousand years ago Langdale was wooded, with alder, birch and hazel on the valley floor and oak and elm on the slopes. The almost complete removal of the woodland, probably following the introduction of sheep farming in the 10th century, has led to greatly increased soil erosion and gully development.

Walking around Langdale is deceptively easy. Physically, there is little problem because the grass is easy to walk on and the slopes are gentle. There are more tracks than are marked on the map, thanks to the farmers' quads rather than walkers or sheep. Most people will opt to walk on the ridges but if you wish to sample a Howgills valley then Langdale is the best, because the middle section has a flat valley bottom that provides an openness lacking in other valleys, such as Bowderdale, and there is an interesting series of incoming gullies.



Langdale from West Fell

The main problem is one of navigation. This is an area where you should heed the advice to know where you are on the map at all times. Don't walk for two hours and then try to work it out because there are few distinctive features to help you. Keep careful track of the few features there are (sheepfolds, gullies, scree) and if on the ridges identify the few distinguishable tops (Green Bell and Middleton with trig points, Randygill Top) and keep them in perspective as you move along. Above the pastures, there is no sign of past human habitation or exploitation, such as quarries, to serve as a guide.

It is my duty not to exaggerate the attractions of walking in the Howgills. Given a choice between walking in the Lakes or the Howgills, I would choose the former nine times out of ten. But on that tenth occasion, I'd look forward to wandering lonely less the crowd.

The ordinary walker will relish the scenery and solitude but specialists such as geologists and botanists will find more of interest, especially within the eroded gullies and scree slopes that are rarely visited by human or sheep.

Langdale Beck is formed by the merger of West, Middle and East Grain below The Calf, with the relatively distinctive top of Simon's Seat (587m) to the

west. Near a picturesque packhorse bridge, Nevy Gill and the combined waters of Churngill Beck and Uldale Beck join Langdale Beck, which then continues through wooded pastures that are not part of CROW land.

Langdale Beck is a fair size by the time it reaches Longdale, a village of one farm, one row of cottages, a couple more buildings, and the old school house. Within the last began the education of Thomas Barlow (1607-1691), who became Bishop of Lincoln. He is a candidate model for the traditional folk song character, the Vicar of Bray, who blithely adapted his religious beliefs to meet the changing political needs of the day. This is surely a calumny, for northerners are known for the stalwart independence of their views.

To the west of Longdale is the growing village of Gaisgill, on the Ellergill Beck tributary of the Lune. New 'luxury homes' have been built on the site of an old garage. Nearby are a number of slightly less new residences, and beyond them New House, dated 1848, and beyond that Barbara's Cottage, with a defiant date of 1648.

Langdale Beck almost doubles the size of the infant Lune, which is next joined by the first significant tributary from the north, Rais Beck.



A walker near the head of Langdale (to the left), heading for The Calf



Langdale, near Langdale Knott, with fell ponies



Sunbiggin Tarn, with the northern Howgills beyond

Rais Beck

Rais Beck drains the broad, tranquil pastures that lie between Sunbiggin and the ridge of 300m hills to the north of the Lune between Newbiggin-on-Lune and Raisgill Hall. It is formed by becks that run west from Sunbiggin Tarn and south from the small village of Sunbiggin.

The area around Sunbiggin Tarn and the adjacent Cow Dub Tarn is appreciated by ornithologists, botanists and malacologists (that is, experts on molluscs) – and also by leisurely picnickers watching the shadows lengthen on the Howgills. Although Sunbiggin Tarn forms only 6 ha of open water, it is the largest for some distance around and is therefore an oasis for many birds. Breeding species include wigeon, teal, tufted duck, gadwall, mallard, little grebe, sedge warbler, water rail, lapwing, curlew, redshank and snipe. The large colony of black-headed gulls for which the tarn was known has recently moved away.

The tarn lies within a limestone upland and is surrounded by heath, acid grassland, swamps, and areas of chalky mire. These soils support a rich variety of plant life, including various sedges, rushes and mosses as well as the marsh orchid and rare bird's eye primrose.

And for those malacologists, there are two rare snails: *Vertigo geyeri* is known at no other British site

and *Catinella arenaria* at only three others. So, there's something of interest underfoot here at least.

The outflow from Sunbiggin Tarn joins Rayseat Sike to form Tarn Sike, which is a Cumbria Wildlife Trust nature reserve. Rayseat Sike runs by a Neolithic barrow that was excavated in 1875 by William Greenwell, who was, amongst many other things, a canon at Durham Cathedral. In his remarkable 98-year life he investigated 400 burial sites and provided thousands of artefacts for the British Museum. He served as a magistrate until the age of 85 when he gained notoriety for suggesting that speeding motorcyclists should be shot.

I would expect Rayseat Long Cairn to rank highly among Canon Greenwell's 400. The barrow is 70m long and has a number of chambers in which burnt human remains were found. Archaeologists speculate that it could be one of the oldest such relics in the region. It is an evocative site, now isolated on a rather bleak moor.

Tarn Sike runs into a large pond at Holme House, where it seeps away – except after heavy rain, when it continues to form Rais Beck proper at Slapestone Bridge, joining with becks running from the quietly rural hamlets of Sunbiggin and Raisbeck. The latter has a notice board with a helpful OS map so old that all colour has long disappeared. The roads have wide grass verges, indicating their origin as drove roads, with limestone walls and scattered Scots pine and ash.

Rais Beck gathers pace as it passes Fawcett Mill, built in 1794 and now a holiday home. Five fields north of the mill may seem unexceptional but they have been designated a Site of Special Scientific Interest for their very naturalness. The site is one of the few remaining traditionally managed plant-rich hay meadows, relatively unspoilt by modern agricultural practices. The flora includes betony, orchid, burnet, primrose, cowslip and fescue.

Below Fawcett Mill is Raisgill Hall, a place with a long history. There is an ancient tumulus nearby but it is not worth a visit unless you are a trained archaeologist. Manorial courts, to regulate the use of the commons, were held at Raisgill Hall until the 18th century. They were then taken over by the court at Orton, not without considerable animosity and legal wrangling about the boundaries and use of Orton and Raisbeck Commons. However, the present owners of the Hall do not wallow in the past: they are leaders of an active local farming cooperative, which has received support from Prince Charles, no less.

On a bench overlooking the Lune at Raisgill Hall Bridge is carved “Go softly by this riverside for when you would depart you’ll find it’s ever winding tied



Raisbeck pinfold, near Pinfold Bridge

and knotted round your heart”, which, if there weren’t five differences, I’d assume to be an unacknowledged quotation from *The Prairie* by Rudyard Kipling. We bear the sentiments in mind as we follow the Lune for 1.5km with Tebaygill Beck joining from the south and then Chapel Beck from the north.



The view across Sunbiggin Moor to the Howgills

Chapel Beck

The Lune watershed north of the A685 is formed by the Orton Fells, comprising Orton Scar, Great Asby Scar and Little Asby Scar. These are examples of **karst**, a kind of landscape that we will meet elsewhere in Loynes. The Orton Fells provide the largest area of limestone pavement in England outside the Yorkshire Dales. It is unfortunately not as large as it was because of earlier quarrying but the area is now protected by law.

The best undamaged pavements are found on Great Asby Scar, to the north of Raisbeck and Sunbiggin, and are now protected as a reserve by Natural England. The folding and jointing of the pavements is particularly notable. The exposure of the site and the effects of over-grazing have left only a few stunted trees, such as hawthorn and holly. Within the grikes further woody and non-woody species flourish, especially various ferns and herbs.

The dry surface of these limestone plateaus was no doubt partly why it was a favoured area for human habitation long ago, as shown by the many remains of

Karst refers to any terrain with soluble bedrock where, as a result, there is little or no surface drainage. It is named after an area of Slovenia but there are many kinds of karst in the world, depending on climate, location, type of bedrock, and so on. In our case, the bedrock is limestone, which is dissolved by the mildly acidic rainfall formed by the absorption of carbon dioxide.

The rainwater dissolves fractures in the bedrock, gradually enlarging them into deep fissures called grikes. The limestone blocks between grikes are called clints. On the surface, these limestone pavements look barren, as little soil forms on the clints, but within the deep, sheltered grikes specialised plant communities flourish.

Underground, the rainwater continues to erode the limestone, until meeting an impermeable lower layer, giving rise to several characteristic features, such as: caves with stalactites and stalagmites; sinkholes, shakeholes, swallowholes and potholes, through the collapse of bedrock above a void; springs, as water emerges at an impermeable layer; disappearing streams, through water flowing into a pothole. Over time, as underground passages are adopted and abandoned, complex and extensive cave systems may develop, to be explored by potholers.



Limestone pavement at Great Kinmond on Orton Fells

Walk 2: Orton, Orton Fells and Sunbiggin Tarn

Map: OL19 (please read the general note about the walks in the Introduction).

Starting point: The centre of Orton (622082).

Head for the unmistakable All Saints Church and walk east past the vicarage to locate the path north to Broadfell (on the left bank of the beck). Take this path and after 100m follow the sign left through the houses. Thereafter, the path is clear, beside the beck and beyond its spring, and emerges at a disused quarry on the B6260.

Cross the cattle grid and walk east on the north side of the wall to the monument on Beacon Hill. Within the extensive panorama of the northern Pennines and the Howgills, locate on the skyline, 1km southeast, the trig point on Knott to the left of a tree. That is your next objective.

Follow the wall east to a gate near the corner and through the gate turn half-left to another gate, picking up the bridleway. Keep the tree in view and when the bridleway turns south leave it to head between limestone crags towards the tree. From the trig point, there's an excellent view, with Castle Folds prominent nearby. (Unfortunately, Castle Folds cannot be visited without climbing a wall: the stile that can be seen is over an adjacent wall. In any case, I would not recommend walking east over the limestone, as the clints are fragile and the grikes are deep. If you do so, a gate in the wall east at 658094 might be welcome.)

From the trig point, walk west on grass between the limestone to regain the bridleway and enter Knott Lane. Turn left on a clear path (part of the Coast-to-Coast route) just north of the stone circle. Continue east to Acres and then along the quiet lane to Sunbiggin and Stony Head, after which the road becomes a track. Shortly after entering the CRoW moorland, the bridleway forks. Take the left branch heading northeast, to reach the road north of Spear Pots (a small tarn now almost overgrown). Walk south on the grassy roadside verge to Sunbiggin Tarn, with good views of the Howgills beyond.

Past the cattle grid, take the bridleway right to reach the branch you met earlier. Now return to Knott Lane. This is the only significant retracing of steps in our 24 walks but the path is excellent, with good views in both directions, and much better than walking on the limestone scars or on the nearby roads. Cross Knott Lane and continue west past Scarside, across fields to Street Lane and on to Orton.

Short walk variation: The long walk is a figure of eight. So the obvious short walk is to do half of the eight. Follow the long walk to Knott Lane and then, instead of turning east to Acres, turn west to Scarside and Orton.

ancient earthworks on the Orton Fells. Castle Folds, near the trig point on Knott, is an Iron Age site, with the ruins of hut circles on a natural limestone platform. Below Knott there's an ancient 40m-diameter circle of about thirty stones, of variable size, all but one of pink granite.

The pink granite may be a surprise, below the limestone scars, but the occasional pink boulder can be seen perched on the limestone pavements and scattered in fields. They are erratics, brought here from the Shap Fells by glaciers. Prehistoric man is not alone in finding a use for these intriguing boulders: some amusement can be obtained in spotting them in barn walls, protecting beck banks, ornamenting houses, and marking boundaries (for example, Mitchell's Stone, 1km north of Sunbiggin Tarn).

The headwaters of Chapel Beck run from Orton Scar, which on maps from the 16th century was marked as "Orton Beacon" or by a beacon symbol. The beacon warned of marauding Caledonians. Today Beacon Hill has a prominent monument erected in 1887 for Queen Victoria's golden jubilee.

The becks run by and through Orton, the largest settlement so far, as shown by the fact that we find our first public house. Orton was made a market town in the 13th century and the numerous converging roads, tracks and paths indicate Orton's importance in the old droving days. This rural heritage is echoed in the Orton Market that today wins prizes, such as National Farmers Market of the Year 2005, for its emphasis on local produce.

In 2006 Orton hosted a "Festival of the Rough Fell" to celebrate the ancient breed of Rough Fell sheep, its history, and the crafts associated with Rough Fell farming. The majority of Rough Fell sheep are found on the Howgills and surrounding fells. As the name indicates, the Rough Fell is hardy enough to live on the poor upland grasses of exposed fells. It is a large sheep, with a black and white face and curved horns, renowned for its thick wool, which is used to make carpets and mattresses, and high quality meat.

The festival marked a recovery from the foot and mouth epidemic of 2001, which caused great problems throughout Loynes and, in particular, reduced the number of Rough Fell sheep from 18,000 to 10,000. As the fells

were closed, the epidemic threatened the traditional methods of fell management, whereby every flock knows its own territory or ‘heaf’, with each lamb learning it from its mother.

The mingling of old and new typifies modern Orton: from the stocks near the church to the chocolates from the recently established industry. Likewise, among the few modern dwellings are some fine old buildings. Petty Hall has a door lintel dated 1604. Orton Hall, to the south, was built in 1662 and was once the home of Richard Burn (1709-1785), vicar of Orton and author of texts on the law and local history.

The All Saints Church was built in the 13th century, replacing earlier temporary structures, and has been rebuilt several times since. Inside the church there is a display of three old bells, the oldest of 1530, and a list of vicars back to 1293. The early 16th century west tower is the oldest remaining part and today is an eye-catching off-white. After modern methods to seal the leaking tower failed, it was decided to resort to the traditional treatment of lime washing. So far, it has worked.

Chapel Beck gains its name as it runs south past Chapel House, where there is a spring, Lady Well, which

was known for its health-giving properties. As Chapel Beck approaches the Lune we may glance east up the Lune valley towards Newbiggin-on-Lune and reflect on the contrast between the hills to the north (Orton Fells) and to the south (the Howgills).

The geology of Loyne has a major impact on the appearance and activities of the region but it is not as complicated as, for example, the Lake District’s geology. In general, rocks are of three types: sedimentary (formed by the settlement of debris), igneous (derived from magma or lava that has solidified on the earth’s surface) and metamorphic (rocks that have been altered by heat and pressure). The bedrocks of Loyne are almost entirely sedimentary, with the sediments having been laid down in the following order (youngest on top, naturally):

- about 300m years ago: Carboniferous (Silesian)
– mainly millstone grit
- about 350m years ago: Carboniferous (Dinantian)
– mainly limestone
- about 400m years ago: Devonian
– mainly sandstone
- about 450m years ago: Silurian and Ordovician
– mainly slates and shales.

The Howgills (apart from the northeast corner) have had all layers eroded away to the Silurian and Ordovician. Orton Fells have been eroded to the Carboniferous limestone. Clearly, if the Howgills still had a Carboniferous limestone layer it would be much higher than Orton Fells. This implies a tilt or slip (a fault) to raise the Howgills side, which would have made it more exposed and vulnerable to erosion. The word ‘fault’ suggests a minor matter but the slippage, spread over millennia, would have been of a kilometre or more (the 2005 Asian tsunami is thought to have been caused by a slippage of a few metres). There are literally all sorts of twists and turns – some sudden, some slow (but over unimaginable timescales) – to complicate this brief outline but it may serve as a starting point for understanding Loyne geology.



Rough Fell sheep



All Saints Church, Orton

The Lune from Chapel Beck ...

Immediately after Chapel Beck joins, the Lune passes under Tebay Bridge, a sign that we are approaching Tebay. The village is split in two by the A685: the original part now called Old Tebay and the newer part Tebay. In the early 19th century Old Tebay was a community of about ten houses, with Tebay consisting of little more than the 17th century Cross Keys Inn.

In one of those houses lived Mary Baines (1721-1811), who was alleged to be a witch and is said to still haunt the Cross Keys Inn. She was feared for various diabolical deeds, such as foretelling “fiery horseless carriages” (that is, trains), but why she should be feared for a forecast that did not come true before her death is hard to see.

When the railways did arrive, they transformed Tebay. With a station on the west coast main line, which opened in 1846, and a junction to the line that ran through Newbiggin-on-Lune to the east coast, Tebay was a key part of the **Loyne railway network**. In addition, there

were many sidings for the engines that were used to boost trains over the Shap summit. The village migrated south to be closer to the rail-yards, with terraces for rail-workers and a Junction Hotel being built a kilometre south. St James Church, with its distinctive round tower and conical top, was built in 1880, paid for by the rail company and workers.

Tebay’s image has not recovered from the reputation it gained in those times, which is hard to do when guide-writers persist in repeating old opinions, such as this one, from Clement Jones’s *A Tour in Westmorland* (1948): “The traveller ... is apt to think - and how rightly - of Tebay as a grim and grimy railway junction blackened with the smoke of many locomotives and consisting mainly of the ugly dwellings of workmen employed on the railway.”

Today things are different. The Newbiggin branch line closed in 1962, Tebay station was demolished in 1970, and the Junction Hotel is no longer a hotel. The terraces are painted in multi-coloured pastel shades and, below the green hills on a sunny day, present a handsome,

At its peak, the **Loyne railway network** consisted of eight lines, plus lines out of Loyne to places such as Carlisle, Kirkby Stephen, Skipton, Preston, Morecambe and Windermere:

Tebay – Lancaster (1846-)
Wennington – Lancaster (1849-1966)
Clapham – Wennington (1850-)
Newbiggin-on-Lune – Tebay (1861-1962)
Lowgill – Clapham (1861-1964)
Wennington – Carnforth (1867-)
Settle – Carlisle (1876-)
Lancaster – Glasson (1883-1930).

We will encounter these lines, derelict or alive, many times on our journey and some general comments are in order, not on the details that railway enthusiasts are fond of but on the railways' impact on Loyne.

The building of the railways brought welcome employment but they generally harmed local industry. This was almost entirely small-scale activity to meet local needs, such as basket-making, pottery, quarrying and coal mining. It became easier and cheaper to import coal from where it was plentiful, and while new markets were opened up for local products they could not compete in terms of price or quality with the outputs from the rapidly-growing industrial towns. Consequently there was an exodus from the villages to those towns.

The railways affected local transport. It was much cheaper to send beef by train than by hoof. Therefore, the drove roads fell into disuse, along with the associated activities en route. Otherwise, most country tracks, used on foot or on horse, were not much affected until the advent of the car.

Scenically, the railways have now merged into the countryside and are fondly regarded. Derelict lines are often unnoticeable, except for structures such as the Lowgill Viaduct and Waterside Viaduct, which still impress us. They must have been awesome in the 19th century.

if not pretty, sight. But Tebay cannot fully escape the impact of its location in a traffic corridor. There is an ever-present hum or roar, depending which way the wind is blowing, from the motorway, broken frequently by the rattle of the London-Glasgow expresses.

Beyond the motorway the Lune passes a mound that when glimpsed by motorway drivers might be assumed to be the remains of a slagheap. It is in reality what's left of the motte of a Norman motte and bailey castle, now called Castle Howe. Such castles consisted of an artificial mound (the motte), with a wooden or stone building on top, and a larger enclosed yard (the bailey) containing stables, workshops, kitchens and perhaps a chapel. The earth from ditches around the motte and bailey was used to create the motte.

Castle Howe is the first of ten such remains that we will meet on our journey. The castles were built soon after the Norman Conquest to provide security against rebellious northerners. It seems that Loyne's locals were not as obstreperous as elsewhere because its castles were at the smaller end of the scale of over five hundred such castles built in England. Mottes are typically from 3m to 30m high, with Loyne's being nearer the lower end of the range. Also, there are no remains of stone buildings on any of Loyne's mottes, indicating that the more vulnerable wood was considered adequate.

The Loyne castles were probably for the strategic and administrative use of landlords rather than for military garrisons. They were built overlooking river valleys and close to fertile meadows. Castle Howe is the closest to the river itself and has lost half its motte to flood erosion. The motorway at least has swerved to avoid it, if only just. By Castle Howe the Lune, flowing west, meets Birk Beck, flowing east.



Left: A Tebay terrace.