



Getting your Bearings

Contour lines

Narrator

By now you should be coming rather familiar with this map. It shows the complicated geography around Mam Tor – to the West of Castleton, in the Peak District. And you should have already studied the route of a walk which starts below Mam Tor. It follows an old roadway around to the south, before continuing up a track to the summit of Mam Tor, then making its way along the line of a ridge.

We're joining three walkers who are going to navigate along the route, so that you can experience something of the walk for real. They've only just set off, and they're coming to a place where they have to make their first decision – which of two routes to follow.

Chris Dillon

Oh look, there's two roads here, Mike, but the map says there's going to be a road and a track, so which way do we go?

Mike Underhill

That's the track we want. I'll take a bearing – that'll help us decide where to go. I'll line the edge of the compass along the route I want to follow and set the northing lines inside the compass, so that they're parallel with those on the map, add five for magnetic variation, and – according to the compass – that's where we're going.

Chris

OK.

Narrator

We'll be coming back to how the compass works later on.

Mike

Can you imagine the sort of traffic that used to come down this road? ...

Narrator

Chris Dillon and Elisabeth Evershed have joined Mike Underhill, an experienced rambler, to undertake the Mam Tor/Lose Hill walk.

Mike

... It really was a main road ...

Chris

... the road just disappeared ...

Elisabeth Evershed

How do you get to go up then?

Mike

Well, this road was the Chapel-en-le-Frith – that’s where it’s going to. In fact, I think it’s a good idea to stop at this point and have a look at our walk. There, that’s Mam Tor, and we’re going to walk all the way along this ridge. And this ridge takes us down to a place called Hollins Cross. Now, Hollins Cross is a saddle. In the plan view at that point we would see six paths. We’re going to continue from Hollins Cross over the ridge on to Back Tor – that’s the hill with the sharp angular face. Then we’re going to carry on on to Lose Hill, which is the hill in the distance, and from there we shall plan our return journey.

Elisabeth

All right.

Chris

OK.

Mike

It’s a bit of a mess, this.

Chris

It is, isn’t it?

Narrator

Some things you can’t tell from the map alone, such as the present condition of the old road. Taking a look along the whole ridge from the air allows you to see its shape better. The details of the map can be draped over the landscape, but that doesn’t help pick out the walk particularly easily. Let’s represent the profile of the ridge as a wire frame. It’s like a crooked finger. The part of the walk visible from here includes the path up the south-west side of Mam Tor to its summit. The route continues along the ridge to Hollins Cross, where there’s a dip. Then there’s a sharp rise at Back Tor before the ridge culminates at Lose Hill.

Many maps come with most of the information about the height of the land above sea-level in this form of contour lines, which is something you should have learnt about already. The Ordnance Survey software can add contours to this image quite easily.

Here’s the contour joining all the points at a height of 300 metres above sea level. All the points lying ten metres higher than that are drawn as this next contour line. Then, the 320-metre line, the 330-metre, the 340-metre and the 350-metre lines. And so on. Every 50 metres, the contour line is drawn with a bolder line, so it’s easier to pick out this 400-metre contour and then, just below the peak of Lose Hill, the contour for 450 metres, leaving a final two contours to reach the peak of the hill.

You’ll see that the walk from the summit of Mam Tor takes a path that follows the top of the ridge and so is, generally speaking, in line with the contours. But the route up or down from the ridge crosses several contours. If you look down from directly above Mam Tor you’ll see that the path up crosses over the contours. That means that the path rises. Although it avoids the steeper slopes, where the contours appear from above to be close together, the steepest section of the hillside is the nearly sheer cliff face east of the summit, to the right of the picture. So where the contours are widely separated, the ground is relatively flat, but as the ground gets steeper, contours appear

to be squeezed closer together. Well, in fact, by approaching Mam Tor up the path from the south, our trio can make use of a very civilised stairway, courtesy of the National Trust.

Mike

The National Trust have done a lot of work here to cope with the volume of people that visit this place.

Elisabeth

Yeah, it looks like it. Oops, sorry.