

Twechar's buried secrets

The miners in the Twechar and Gartshore shafts risked their lives to win coal that was formed some 325,000,000 years ago from decaying trees of these swamps. Large rivers flooded the forests covering the trees in a sandy mantle and with the passing of time, they were slowly converted into coal.



Photographs from left to right: Carboniferous coal forest, the 'Scarlet Shark', Twechar Colliery No. 1 Pit 1962, Twechar Colliery Sweets Workers, Twechar Colliery No. 1 Pit 1962 © Ian Adams, Twechar Colliery Sweets Workers © Ian Adams, Twechar Colliery Sweets Workers © Ian Adams

Find out the secrets that lie in the turf along the Roman invaders' wall.

Discover more secrets that lie beneath in the layers of rock; Tropical swamps? Coastal lagoons with predatory sharks? Lava flows like those in Iceland right here around Twechar.

As in any good detective story, the clues lie in the rocks, but reveal only some of the answers.



Some 15 million years earlier volcanic vents around Kilsyth spewed out lava covering the land. Look to the north to the Kilsyth Hills - these are the lava flows. Today's landscape formed over the past tens of thousands of years when glaciers scoured the land. The lavas are harder than the mudstones and sandstones around here so they form hills.

Now look to Barhill. Standing high above the Kelvin Valley it is formed of a similar hard rock. In this case the molten rock was squeezed between the layers of sandstone and hardened there to form a flat sheet called a sill. It also forms the hill and quarry at Croy and the crag that Stirling Castle stands on.

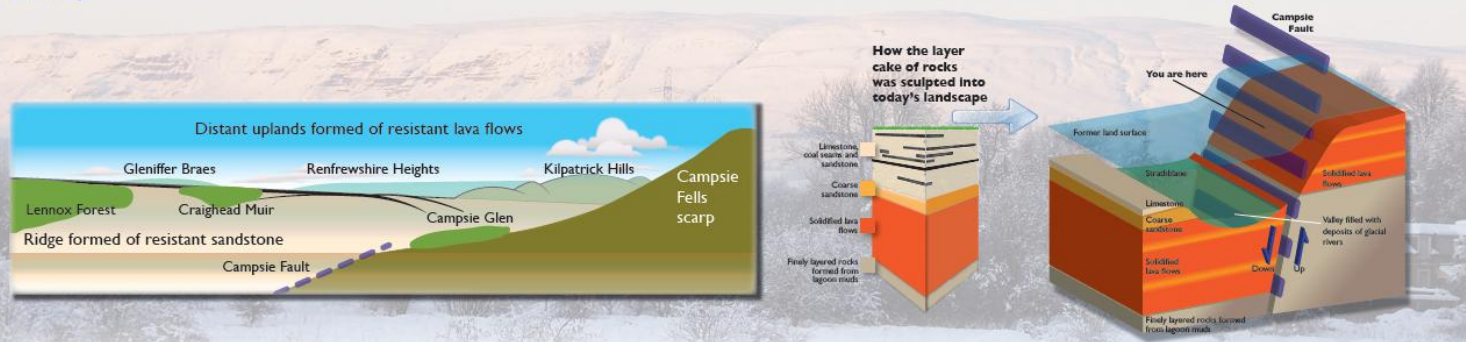


Bare bones of the landscape

The rocks beneath control the land shapes in front of you. And they in turn affect how wildlife and people use the land. 300 million years ago the Glasgow area sank down along huge ruptures in the Earth's crust. One of these, called the Campsie Fault, forms the steep face of the Campsies.

Above the fault-line, hard lava rocks are more resistant to being worn away by the elements. They make wild uplands, home to rare bog plants and soaring birds of prey. The down-faulted rocks below form the farmed lowlands.

More resistant, less fertile sandstone forms a ridge more favoured by foresters. Thinner beds of limestone were worked above Lennox town. The alum shale found within the limestone was processed in Macintosh's chemical works in the village, for use in dyeing textiles. On the slopes above Lennox town, the lime-rich spoil supports important species-rich grassland.



Icy touches on the landscape

15,000 years ago a vast ice sheet stretched below here as far as the eye can see. And that's nothing – at its full thickness the ice easily covered the Campsie Fells. If you travel a mile uphill from here along the Crow Road, to the left you'll see mounds of debris left as the ice melted off the tops.



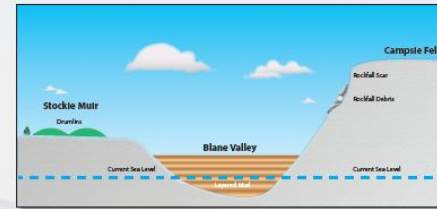
Such thick ice moulded the rock debris at its base into the low hillocks called **drumlins**. These cover much of East Dunbartonshire, including the lower slopes above Lennoxtown, and the heights of Stockiemuir. The way the drumlins line up shows the ice moved either east or west across the lowlands. How do we know which? A highly distinctive rock type outcrops above Lennoxtown and nowhere else. Fragments of this rock are found in drumlins miles to the east, indicating that the ice sheet flowed that way.



Eventually the glaciers melted down to blocks of ice sitting in hollows amongst the drumlins. The rough mix of stones, sand and clay left by the ice is called **till**, and often does not let water seep through. Those hollows that now hold lochans are called **kettle holes** – excellent habitat for wetland birds.



The flat bottoms of the straths hide deep valleys scoured out by flowing ice. The Glazert Valley below here is floored with gravel from rivers that gushed from the melting glaciers. In contrast, it is finely layered mud that thickly fills the flat Blane Valley further west. This mud formed 11,000 years ago, in a lake dammed up by a glacier filling the Loch Lomond basin.



The melting of the ice sheet removed an immense weight that had pushed the land down. It has been rising back up ever since. The resulting earthquakes may have caused huge rock falls in parts of the Campsie scarp. These are marked by steep rock scars and massive boulder mounds below them. You can see them left of the road as you travel down to Lennoxtown.

A pretty major ice age facelift!



Far left: View of the Campsie Fells from Waterfield pond.
Left: Outcrop of Campsie.
Right: Looking out over Lennoxtown and beyond.

