

## 13. Long Valley



1. A view across Long Valley as it was in 1810, painted by John Sell Cotman.

Dry valleys are a feature of Norfolk in areas with chalky or sandy land, with permeable soils which do not hold surface water. They are thought to have formed during the Ice Age, under climatic conditions different from those of today. Water may have shaped the dry valleys when climate was warmer and wetter, and springs were active; also in cold periods when the ground was frozen, so could be eroded by seasonal meltwaters.

Long Valley meanders in a broad, s-shaped course for almost a mile, heading westwards from Heartsease Lane towards Gilman Road, heading for the Wensum valley. It would have begun to form some time after the end of the Anglian glaciation, perhaps 425,000 years ago. It drained a wide area of the Mousehold Heath plateau, and gradually cut down into the softer rocks underlying the gravels of the plateau surface. The edges of Long Valley are fluted by tributary dry valleys, for example at Birch Walk and Oak Avenue.



2. Aerial photo of Long Valley

The topsoil in Long Valley contains much sand and silt, washed in over the centuries from land de-vegetated by quarrying and rabbit disturbance. The slopes of the valley would have been also shaped during the last Ice Age, over 14,000 years ago when Norfolk had a tundra landscape.

The subsoil was permanently frozen, but the topsoil melted in summer and then sludged slowly downhill by a process called 'solifluction'. Wind-blown silt would have been added to the topsoil, originating from dust storms whipped up by strong winds blowing along an ice front which lay between Hunstanton and Blakeney.



3. A glacial dust storm at Brúarjökull, Iceland



4. Long valley has several tributary dry valleys. This is a shallow one entering from the south.



5. The Heath plateau has a distinct break of slope on the north side of Long Valley.

The natural shape of Long Valley has been altered by human activity. After the Heath became a 'Peoples' Park' in 1884, a team of 352 unemployed men were busy *'filling up holes, breaking down the edges of the gravel pits, taking away the roughness of various places, getting the plots ready for planting'*.

Embankments were constructed to carry Gilman Road and Gurney Road across Long Valley, and a new terraced pathway called Upper Long Valley was constructed along its southern slope as an amenity feature. Its floor is likely to have been infilled by quarry spoil in many places.

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