

ESKERS AND MAN

Since pre-historic times, humans have had an interest in eskers for very practical reasons, using them for a variety of purposes, due to their height, shape and geology:

1. Building material

Along Blakeney Esker there are five major disused quarry sites, the largest being at Wiveton Down. Quarrying took place on the esker from World War II, when permission was granted to extract sand and gravel from Wiveton Down. Quarrying along the esker continued, on and off, until the early 1990s when all the useful sand and gravel had been extracted. The Down is now a Local Nature Reserve and evidence of the quarrying is still obvious today. All of the esker is designation as a Site of Special Scientific Interest (SSSI) and prohibits any further quarrying. The other relic pits can be seen along the esker if the bridlepath is followed from Wiveton Down Local Nature Reserve to the coast.



Figure 1 Quarrying at the site during the late 1980s.

Photo: Natalie Bennett / English Nature

Many of the surrounding churches and buildings have been built using local flint, and although much of this will not have originated from the esker, it shows how long man has used the regional geology as a resource.

2. Settlements

In the past, in flat open landscapes, with cold winds and harsh weather, eskers have provided people with protection from the elements. In fields alongside Blakeney esker, fine flint axes have been found suggesting that settlements were located in the lee of the esker, protecting them from the bitter winds. Settlers would also have found the neighbouring source of sand and gravel a useful resource.

In contrast to this, from Roman times, settlements and houses were generally built on higher ground as it provided a good vantage point. Interestingly, the name Wiveton originates from the Latin 'Wiburti Villa', perhaps suggesting that the esker was once the site of a Roman villa?

If left unmanaged, the heathland and acid grassland vegetation can soon overrun an esker. In Arctic Canada, many eskers have become 'oases' of bushes, trees and wildlife. The frozen ground beneath the surrounding lower lying areas prevents this sort of growth. There is archaeological evidence that humans used Canadian eskers for shelter, hunting (using trees) and firewood.

3. Roadways

Humans have used eskers as natural elevated roadways since prehistoric times, allowing safer passage through the landscape. This is because they

are made of sand and gravel, which is well-drained and therefore easier to walk on than the surrounding boggy clayey ground. A famous example of this is in Ireland, between Dublin and Galway, where the esker allowed safe travel above the bogs and wetlands between these two cities. In places, the esker still carries the modern N4/N6 road. In Nova Scotia, paths along the top of eskers are used not by man, but local moose and deer, who obviously also find it easier to walk on this glacially constructed natural highway.

4. Agriculture

Today, plants that require sandy, well-drained, acidic soils dominate the vegetation on the esker. Good quality, clayey, arable land retains nutrients and water, rather than allowing them to drain away. As this type of low-lying clayier land surrounds the esker, the esker itself would never have been used for growing crops. Indeed, an historic map from the 1800s shows that the esker was grassland and the surrounding land was divided into fields and used for crops. Because these surrounding fields would have been in use, it is likely that the esker would have been used for grazing animals, such as sheep. Another reason for this division of land use is that farmers require flat lowland for growing crops, as ploughing of steep slopes like those on all sides of the esker would be impossible.

5. Graveyards

At the northern end of the Blakeney esker, near the village of Morston, Bronze Age burial grounds are visible, shown as tumuli on today's maps. The location of these burial grounds is for practical reasons; firstly, the softer, sandy soils, compared to the clayey lowland soils, were easier to

dig in; secondly, it was believed that the elevated site would take the bodies closer to the heavens.

6. Geological research

The esker has provided geologists with information that has improved their knowledge of Norfolk's glacial past. For example, it has shown the extent of glaciers in the region, and the quarrying has revealed the origin of the esker. Integrating this knowledge with other features of the Norfolk landscape allows geologists now to have a far better understanding of Norfolk's climate over the last two and a half million years.

Discussion points / homework topics

1. Can you think of other users for eskers?

ANSWER: Lighthouses where eskers reach the coast.

2. Would you say that eskers have an economic value?

ANSWER: Yes - as a sand and gravel aggregate resource.

3. Research other uses for eskers, such as in Nova Scotia, Canada and Ireland.

ANSWER: There are many websites with fantastic photos of eskers in these locations. Search the web where lots of information is available.