

The shaping of the Norfolk Coast landscape

From 'The Norfolk Coast Landscape: An assessment of the Area of Outstanding Natural Beauty' (Countryside Commission, CCP 486, 1995), with revisions to the 'Human Influences' section from David Robertson, Norfolk Landscape Archaeology, in 2008.

The landscape of the Norfolk Coast that we see today is a product of the interaction between the physical and human influences that have shaped it over the centuries. The underlying geology and the physical processes of erosion and deposition have had a profound effect on the landscape, influencing not only landform, soils and vegetation communities, but also the human activities that are dependent upon or affected by them. Human activities have, in turn, changed the natural vegetation to suit a variety of needs and introduced man-made elements into the landscape such as managed farmland, field boundaries, roads and settlements.

Physical influences

Geologically, the Norfolk Coast is underlain by a series of strata, of relatively recent origin, which dip gently down from west to east. In the west, these solid strata outcrop, or come close to the surface, giving rise to areas of distinctive landscape character. The chalk, for example, which underlies most of the county of Norfolk, gives rise to a landscape of distinctive downland character, whereas to the south, around Sandringham an outcrop of Lower Greensand gives rise to an orangey-red sandstone, known locally as Carstone, which forms some of the more 'dramatic' scenery of the area.

The chalk gives rise to generally thin soil, light in colour and full of hard knobbly flint, which has been extensively used in local buildings since Roman times. The Lower Greensand has resulted in the formation of soils of a rich red-brown colour.

As the geological strata dip gently to the east, they become buried beneath increasingly deeper deposits, firstly of chalky boulder clay and then successively by glacial sands and gravels laid down during the Ice Ages. These superficial or drift deposits are of particular importance in influencing the character of the landscape and underlie one of the most notable features of glacial origin in the area, the Cromer Ridge. Rising up to 100m, the Ridge stretches between Blakeney and Overstrand, and is the highest ground in Norfolk. This belt of high ground consists of a series of small, deeply indented ridges running more or less in the same direction. Along its northern border, it rises sharply from the coastal lowlands, forming an impressive feature in this area of otherwise gentle relief. Much of the soil, clay, chalk lumps and flints of the Ridge came from the surrounding area, but the ice also brought down 'erratics' of basalt, granite, and sandstone from the north. The uneven way in which these various deposits were laid down is reflected in the irregular hummocky surface, which is characteristic of this area.

Where these glacial deposits meet the sea, erosion has led to the formation of a line of spectacular cliffs, rising from a few metres in height at Weybourne to over 60 m at Trimingham. Many of the cliffs are nearly vertical, with waves attacking the base and removing the eroded material. However, on some lengths, especially between Cromer and Mundesley, the presence of ground water in the cliffs can cause the collapse of large areas at a time.

Six rivers flow through the area. The picturesque Glaven and Stiffkey flow through predominantly pastoral surrounds while on a smaller scale, there are the narrower channels and ditches of the Babingley, Burn, Heacham and Hun. Most of these

watercourses flow northward to the North Sea where their mouths form dynamic systems of constantly moving shingle and sand, while the Heacham and Babingley flow westward into the Wash. In addition, a small largely canalised stream known as the Mun runs parallel to the coast for about 5 km, turning north to enter the sea at Mundesley. All of these rivers have brought down alluvial deposits, leaving generally narrow, but significant areas of flat floodplain, most of which is now used as grazing land.

Along the extreme edge of the coastal strip, a variety of alluvial, shingle and blown sand deposits form a dynamic system of dunes, ridges and marshes. In a number of places salt-marshes front ancient cliff lines. The marshes, in their turn, are protected by spits and barriers of sand and shingle, most notably the well-known formations of Blakeney Point and Scolt Head Island. Further inland, land drainage has reclaimed significant areas of land for arable cultivation and grazing marsh.

Human influences

The influence of humans on the landscape of the AONB has been and continues to be marked. It is the combination of human activity, relief, soil and geology that give the AONB its distinctive but varied character.

The earliest evidence for human populations in the area of the area dates to about half a million years ago. Distinctive flint axeheads, tools and artefacts from this date onwards have been found at a number of sites. These would have been used by small groups of hunters and gatherers exploiting a wide range of resources.

During the last glaciation (about 100,000 to 10,000 years ago) the ice sheet came as far south as the north Norfolk coast. The AONB was subjected to periglacial conditions and, consequently, the period up until about 18,000 years ago is poorly represented in the archaeological record. As the sea level was very low, much of the North Sea was a wide open plain and sites used by Neanderthals and/or humans (*Homo sapiens*) may be located off-shore.

From about 18,000 years ago the ice began to recede, the climate warmed and by around 10,000 years ago climatic conditions were similar to those of today. Humans returned to the area, leaving behind distinctive flint artefacts including long blades, which have been recovered from a Late Glacial and Early Mesolithic site at Titchwell. At the time the site was 60-70km from the sea to the north. During the Mesolithic (about 10,000 to 4,000 years ago) the sea level gradually rose and the North Sea land was covered by sea water. By about 9,000 years ago the long blade site at Titchwell had been abandoned. One of the richest known Mesolithic sites in Norfolk has been found on the Cromer Ridge at Kelling Heath.

By the Neolithic period (about 4,000 to 2,000 BC), the landform of the Norfolk coast was broadly similar to that of today. Domesticated animals and plants were introduced during this period, although the impact this introduction had on the landscape was probably limited and localised. Flint axeheads and objects have been found at sites throughout the area, but few settlement sites have been identified. A small number of monuments were constructed, including enclosures at Salthouse and Cley next the Sea.

The impact of farming on the landscape increased during the Bronze Age (about 2,000 to 700 BC) and was accompanied by the first extensive woodland clearances. In 2049 BC a timber circle was constructed within the saltmarsh at Holme-next-the-Sea. Burial mounds dating to the Bronze Age survive throughout the area and many more ploughed out examples have been recorded. The largest surviving barrow cemetery, at Salthouse and

Kelling heaths, includes over 30 barrows. Hoards of Bronze Age metalwork have been found, including an example at Old Hunstanton.

By the Iron Age (about 700 BC to AD 60) open agricultural landscapes were widespread. Field systems and farmsteads of possible Iron Age date have been identified in a number of locations. Two forts with massive earthworks were built, one at Holkham very close to the coast, the second a few kilometres inland at Warham. A hoard of 180 gold and silver torcs was buried at Ken Hill, Snettisham in about 70 BC and hoards of continental gold coins have been found at Snettisham and Weybourne.

Roman period (about AD 60 to 410) villages and farmsteads have been discovered throughout the area. Some, including a farmstead at Heacham and Snettisham, were surrounded by regular grid-like field systems. The Peddar's Way, one of Norfolk's principal Roman routeways, originated as a military road and terminates near Holme-next-the-Sea. The threat of raids from the continent during the 3rd century led to the construction of forts along the east and south coasts of England, including the Branodunum site at Brancaster.

Saxon (about AD 410 to 1066) sites are also known in the area. A number of Early Saxon cemeteries have been found, including one on the cliff top at Mundesley and one on a hillside at Thornham. A Middle Saxon site producing considerable numbers of coins and metal objects has been identified at the Burnham Market. Late Saxon metalworking pits remain as earthworks at Beeston Regis and Weybourne. The countryside around the Cromer Ridge was heavily settled by the Anglo-Saxons and much of the complexity of the road system in this area is thought to have dated from that period.

During the medieval period (about 1066 to 1539) much of the area was intensively farmed, with a wide range of arable and pastoral practices employed. The success of agriculture is represented in the numerous medieval churches, whilst the wealth of landowners is reflected in religious houses (such as the friary at Burnham Norton), moats and Castle Rising Castle. Around the Cromer Ridge, early enclosure of land, away from the previously settled areas, began during the 14th century. Towards the end of the medieval period, there was a general decline in the rural population and as a result, some villages and hamlets shrunk in size or were deserted. Medieval settlement patterns varied across the area, with nucleated villages in the west and dispersed hamlets and farmsteads in the east.

Many small fishing and trading ports existed on the coast during the medieval and post medieval (about 1540 to 1900) periods. They included the Glaven ports (Blakeney, Cley next the Sea and Wiveton), Wells next the Sea, Weybourne, Brancaster Staithe, Burnham Overy Staithe and Ringstead. The Glaven ports were perhaps the most important. This is suggested by the facts that in 1301 Blakeney sent ships to help Edward I's war efforts and between the 14th and 16th centuries it was one of only three Norfolk harbours, with King's Lynn and Great Yarmouth, to have customs officials. Different ports were successful at different times, but all had declined by the early 20th century.

From the late 17th century onwards, large landowners established landscape parks around their residences. Many of these designed parks, including Holkham, Sheringham, Hunstanton and Felbrigg, survive and are important influences on the area's landscape character. Emparkment led to the desertion of some villages. At Holkham, the site of the medieval village was abandoned for a new location on the edge of the park. In addition to the piecemeal enclosures of earlier centuries, further enclosure of land into generally large rectangular units occurred following the Parliamentary Enclosure Acts of the 18th and 19th centuries.

During the late 17th, 18th and 19th centuries, large landowners on the north coast drained saltmarshes and constructed substantial sea defence banks. The first banks at Holkham were built in late 17th and early 18th centuries and enclosed an area of marshes north of Holkham village. The enclosed area was increased when a bank was built on the western edge of Wells next the Sea harbour in 1859.

During the 18th and 19th centuries landowners also played an important role in agricultural improvement and innovation. A number, including Thomas Coke, Earl of Leicester, introduced new cropping regimes. Many rebuilt farm buildings and a large number of the surviving historic farmhouses, barns and stables date to this period. The piecemeal or landowner-led enclosure of small fields and common land into larger fields began in the medieval period, but reached its height during the Parliamentary Enclosures of the 18th and 19th centuries.

During the 18th century the coast attracted people in search of leisure activities. Cromer and Mundesley developed as resorts where members of fashionable society could lodge and bathe. During the 19th century (New) Hunstanton, Wells next the Sea and Sheringham became resorts. The development of the resorts was driven by the arrival of the railways in the mid 19th century and saw the creation of piers, promenades and distinctive seaside architecture.

World Wars One and Two saw anti-invasion defences constructed in the area. These included defensive trenches, gun batteries, concrete pillboxes, barbed-wire, scaffolding and mine fields. Many of the pillboxes survive, as do elements of the World War Two coastal batteries at Brancaster and Cley next the Sea.