Bedfordshire and Cambridgeshire Claylands

Key Characteristics

- Gently undulating topography and plateau areas, divided by broad shallow valleys.
- Predominantly an open and intensive arable landscape. Fields bounded by either open ditches or sparse closely trimmed hedges both containing variable number and quality of hedgerow trees.
- River corridors of Great Ouse and Ivel compose cohesive sub-areas characterised by flood plain grassland, riverine willows and larger hedges.
- Woodland cover variable. Clusters of ancient deciduous woods on higher plateau area to north-west between Salcey and Grafham Water. Smaller plantations and secondary woodland within river valleys.
- Settlement pattern clusters around major road and rail corridors (A1 and M1) many with raw built edges. Smaller, dispersed settlements elsewhere. Village edge grasslands an important feature.
- Generally a diversity of building materials, including brick, thatch and stone. Limestone villages on the upper Great Ouse.
- Man-made reservoir at Grafham Water. Restored gravel working lakes adjacent to river Ouse, and water-bodies in Marston Vale resulting from clay extraction.
- Brickfields of Marston Vale and Peterborough form a major industrial landscape. Mixed extraction, dereliction and landfill.
- Medieval earthworks including deserted villages the major feature of visible archaeology.

Landscape Character

These claylands comprise most of central and northern Bedfordshire and western Cambridgeshire. There is a distinct boundary to the east, where they run down to the level fenlands, and to the south where they meet the chalklands which run between Dunstable and Cambridge. To the south west there is a more gradual transition towards the Upper Thames Clay Vales and Midvale Ridge. To the north lies the Yardley-Whittlewood Ridge, while the valley of the river Nene marks the junction with the adjacent Northamptonshire and Leicestershire Vales. Within, but distinct from, the Claylands character area the Bedfordshire Greensand Ridge to the south provides a contrasting narrow island of acidic soils with associated woodland and parkland.

The area comprises a broad sweep of lowland plateau, dissected by a number of shallow valleys, including the rivers Great Ouse and Ivel. It is typically an empty gently undulating lowland landscape with expansive views of large-scale arable farmland, contained either by sparse trimmed hedgerows, open ditches or streamside vegetation. Further east, field size typically increases. There are scattered ancient woodlands which tend to be clustered most noticeably in a band to the north of the area; elsewhere the woods are more isolated, yet form important visual and wildlife features.
There are a number of distinctive sub-areas of varying scale. Firstly, between Bedford and the M1 is the Marston Vale, a broad valley dominated by the effect of clay extraction and the brick industry. Here, chimney stacks punctuate the skyline and the strong smell of burnt clay frequently permeates the atmosphere. Enormous pits exist throughout the Vale, a few of which are currently being worked. Other pits are either derelict, have been restored to water uses, or are utilized as major landfill sites. The latter create prominent domed landforms in the level Vale. The extent of these industrial areas is often concealed from the public roads but is more visible from the elevated railways and Greensand Ridge. Belts of mature poplars often emphasise the presence of these intrusive features.

Secondly, a similar landscape exists south of Peterborough. Thirdly, the valleys of the rivers Great Ouse and Ivel pass through the centre of the plateau lands. West of Bedford the Great Ouse meanders down from Buckinghamshire, firstly around the northern edge of Milton Keynes and then through a picturesque and enclosed landscape of water meadows and attractive limestone villages towards Bedford. North of the confluence with the Ivel at Tempsford, the valley broadens to create long distance views and big skies. Here, the fertile alluvial soil and river gravels combine to create a mosaic of market gardening, mixed with past and present mineral extraction of sand and gravels particularly north of Sandy. River pollards and meadows line the flood plain and river, most notably between St Neots, Huntingdon and St Ives, before meeting the fens at Earith. Grafham Water, one of the largest man-made reservoirs in England, is an important base for water-based recreation and nature conservation. The lake is imposed on the local landscape, dominating the immediate locality but separated from the surrounding arable landscape by gentle hills and woods. A final sub-area is the corridor of the river Tove and Grand Union Canal to the west. Here mills, locks, weirs and riverine pollards create a distinctive environment. The canal then runs southwards through Milton Keynes alongside the river Ouzel passing through a series of linear parks and amenity lakes.

Physical Influences

The soils in the area are dominated by a variety of moderately permeable, calcareous, clayey soils. To the north these overlie a chalky boulder clay (glacial till), whereas to the south they overlie Jurassic and Cretaceous clays. The elevated clayland plateau to the west is dissected by the upper reaches of the Great Ouse which have better-drained soils due to the underlying local Jurassic limestone. To the east of Bedford and north of Shefford, the broader river valleys of the river Ivel and its tributaries have well-drained soils over alluvium and river terrace gravels.

The special properties for brick making of the Jurassic Oxford Clay have marked it out as a target for extensive extraction in the Peterborough and Marston Vale areas.
Historical and Cultural Influences

The heavy soils of the claylands and dense woodland deterred prehistoric farmers and Roman settlers who first congregated along the lighter soils in the valleys of the rivers Great Ouse and Ivel. Archaeological evidence is abundant in these valleys, including the use by Viking ships of the Great Ouse as far upstream as Willington east of Bedford, where there is evidence of a harbour and docks. The first Roman and medieval settlements were at the river crossings of the Ouse, including Huntingdon and Godmanchester, St Ives and St Neots.

With the improved ploughs of the Middle Ages, the population pressure grew on the higher heavier claylands and the pattern of agricultural landscapes developed. Many settlements from this time have subsequently either shrunk or been deserted which has led to a richness of archaeology in a more sparsely populated landscape. Remains include moated sites, deserted villages and ruined or isolated churches, for example Bushmead Priory.

John Bunyan wrote *Pilgrim’s Progress* while imprisoned in Bedford jail. Fictitious locations in the novel drew inspiration from sites known to the itinerant preacher, for example the poorly drained Marston Vale is considered to be the ‘Slough of Despond’. Oliver Cromwell, a contemporary of Bunyan, was born in Huntingdon in 1599. The small market town of Olney now famous for its Shrove Tuesday pancake race has an attractive broad High Street. It was home in the 18th century to the reformed slave trader Rev. John Newton and the poet William Cowper whose association led to the writing of the Olney Hymns.

The 20th century has brought a number of changes, noticeably in the brickfields of Peterborough and Marston Vale, which the London Brick Company significantly expanded from the 1930s. During the second world war airfields were built on the level plateaux. Many are now derelict but those at Alconbury, Cranfield and Thurleigh survive as important technological and military centres.
Buildings and Settlement

The majority of the arable claylands are uniformly but sparsely populated. Small villages nestle in gentle valleys while isolated hamlets and farmsteads are widely dispersed, particularly north of Bedford. Linear settlements, like Riseley, are common in the area. Notable houses and grounds include Kimbolton Park and Croxton Park. The grandest example however is at Wrest Park, Silsoe, the estate of the de Grey family. The French Baroque/Rococo style house, built c.1835, is unique in England. The formal gardens (English Heritage) comprise canals, pavilions and radiating vistas within woodland.

High density housing development on the edge of urban areas, such as Cambridge, results in further development pressures on landscape features and the cumulative landscape impact can be very dramatic.

Traditional building materials in the villages comprise a mix of brick, thatch, render and stone but there is no over-riding cohesion to the area; rather more localised pockets of style or materials. Most notable are the warm limestone villages of the upper Great Ouse at Olney, Harrold, Odell, Turvey and Felmersham, many of which contain elegant Northamptonshire-style church spires and distinctive multi-arched stone bridges, for example at Harrold, Turvey and Bromham.

The towns along the lower Great Ouse contain a notable range of buildings including the High Street at Godmanchester which has many fine Georgian town houses. Along the river, causeways and medieval bridges - including the rare bridge chapel at St Ives - are distinctive features. Historic coaching towns along the Great North Road, for example at Stilton and Buckden, are now bypassed and provide the atmosphere of a bygone age. Kimbolton with its red tiled town houses is a small yet distinguished model settlement. The associated ‘Castle’ was the final home of Catherine of Aragon. It was later extended by Vanburgh and Adam. The Georgian Swan Hotel, on the Ouse at Bedford, is referred to by Pevsner as the most noble English hotel.

Settlement in the 20th century has continued from its historic pattern along the rivers and A1 corridor. There has been extensive yet undistinguished expansion of existing towns, eg Bedford, St Neots, Biggleswade and Huntingdon. These often present raw industrial and residential built edges to the open countryside, thereby degrading the river valley settings. Power lines and the gas fired power station at Little Barford provide further modern intrusions in this corridor.

To the west of the area adjacent to the M1, Milton Keynes has developed since the 1960s. The city, with its grid-iron road pattern, extensive open spaces, tree planting and sleek modern buildings, is both a showcase new town and major regional shopping centre.

Land Cover

This is a predominantly arable, intensively farmed landscape with large areas of winter cereals and oilseed rape on the higher clay plateau. There is a pattern of large rectilinear fields which are notably larger east of the Ivel/Great Ouse divide. To the east hedgerows are typically mixed but in poor repair and gappy. Further to the west, hedges are predominantly hawthorn but the quality and integrity improves together with a greater, though still limited, number of hedgerow trees, mainly oak and ash. Mature stag-headed trees are characteristic. Streamside willow and stands of poplars emphasize the river and stream corridors.

Clustered around many of the urban villages/settlements, are smaller yet significant areas of paddocks and pasture. Here a ‘pony paddock culture’ with mixed fencing, sheds and jumps creates a distinct local character, as evident at Wootton. Tree cover in gardens and village edge field corners is also greater than in the more open farmed landscape and provides a contrasting intimacy, as for example at Great Gransden. Pasture is common in the flood plain meadows along the river valleys.

The woodland cover is sparse, yet includes some important ancient woodlands, for example at Great Odell Wood, Marston Thrift, Wootton Wood, Brampton Wood and Monks Wood, which include oak/ash coppice woods, some of national importance. There is a greater concentration of woodlands in an elevated band between Salcey Forest and Grafham Water on the Northamptonshire/Bedfordshire border. Salcey Forest and Yardley Chase are the remnants of ancient deer parks and hunting forests which form distinctive historic landscapes that have remained largely intact compared with the surrounding intensive arable areas.

Along the river valleys of the Great Ouse and Ivel, significant areas of present gravel extraction and restored large water bodies are evident. In addition, within the Ivel valley on the flood plain soils, vegetables, horticultural cropping and glasshouses are a distinctive feature. To the north-east of the
area, Grafham Water and its associated earth dams create a major man-made water body in the area.

The brickfields of the Marston Vale and south Peterborough create marked industrialised landscapes at the local scale. Active and worked clay pits, brickworks, landfill sites and large water-bodies, compose a mosaic of despoiled and restored land among the remaining agricultural uses.

The Changing Countryside

- Agricultural intensification and farm amalgamation, particularly to create larger arable fields. There are still isolated examples of this taking place today. Harsh management and neglect of hedgerows.
- Changing crop patterns, through subsidies and advances in farming practice, eg fewer spring crops.
- Loss and fragmentation of habitats, including grassland, ponds, ditches, spinneys and hedgerows. Dutch Elm disease in 1970s and 1980s had a major impact on woodland and hedgerow trees.
- Creation of open water-bodies, most notably Grafham Water.
- Extensive mineral extraction and landfill. Sand and gravel removal to river valleys. Clay extraction, brick manufacture and landfill to Marston Vale and south of Peterborough.
- Growth of horticulture and associated glasshouses in Ivel valley. Subsequent decline of smaller holdings.
- Growth of ‘pony paddock culture’, stables and residual areas to edge of villages and towns, creating a piecemeal appearance.

Shaping the Future

- There is scope for the creation of new woodlands: smaller woods to river valleys and larger woods on higher plateau areas, with scope to enhance linkage within traditional woodland areas. The continued management of existing ancient woodlands is important.
- Landscape enhancement of the relatively industrialised Marston Vale and south Peterborough should include the assimilation of the stark landforms arising from landfill by extensive planting and sympathetic earthworks to respect the wider farmed landscape.
- The management of unimproved grasslands on settlement edges should include the retention of remaining ridge and furrow.
- The enhancement of wetland habitats including the corridors of the rivers Ivel, Tove and Great Ouse should include the re-creation and management of riverine grassland meadows and pollarding of willows. Less intensive farming adjacent to the rivers is important.
- Extensive planting schemes should be considered to reduce the impact of settlement edges, infrastructure corridors and isolated agricultural and industrial buildings. The re-establishment of hedgerows, hedgerow trees, species-rich verges and field margins would provide visual and wildlife corridors between woodland and water courses.
- The sensitive after-use of redundant airfield sites would benefit from integrated landscape strategies.
- A strategy should be considered for future mineral and clay extraction and the associated restoration of derelict and worked sites.

Selected References

Automobile Association (1978), Illustrated Guide to Britain, Drive Publications Ltd.
Bedfordshire County Council (1995), A Rural Strategy for Bedfordshire/Public Consultation Draft, Beds C.C., Bedford.
Cambridgeshire County Council (1991), Cambridgeshire Landscape Guidelines, Cambs C.C., Cambridge.


