

HAVANT BOROUGH TOWNSCAPE, LANDSCAPE AND SEASCAPE CHARACTER ASSESSMENT

SECTION 2:

FORMATIVE INFLUENCES ON THE LANDSCAPE

FORMATIVE INFLUENCES ON THE LANDSCAPE

2.1 Introduction

The patterns and distinctive features of the Havant Borough landscape are a result of the interaction of its physical structure, the nature of the vegetation, the land uses which have resulted, its built form and the continuing influence of human activity. This section draws out the most significant past and present physical and human influences that have shaped the development of Havant Borough.

The meaning of technical terms which have been used in this section are set out in the Glossary at the end of the report.

2.2 Landscape, Townscape and Seascape Context

Although Havant Borough is relatively small, its landscape, townscape and seascape development is very varied and complex, reflecting the pattern of the wider landscape, townscape and seascape which surround it.

Topographically and geologically it sits in the lower levels (below 50mAOD) on the Hampshire Basin clays and sands which extend along the southern seaboard of Hampshire and the Solent. However, the southern part of the Borough, like its neighbour Portsmouth, is distinguished by the higher outcrop of the chalk escarpment at Portsdown Hill. Its coastal lowlands are typical of the mix of urban growth and exposed open landscapes along the Hampshire coast east of Southampton Water, but Hayling Island, in particular, is unique in its harbour and coastal setting and predominantly rural character.

The Borough's urban development has been more domestic in scale than that of its larger neighbour Portsmouth and unfortunately it has suffered from the severance caused by main arterial routes (A3 (M) and A27 (T)) to serve not only the Borough but Portsmouth and Southampton and the coastal region as a whole. Green fingers of open land (the green infrastructure) still extend into the urban form, most notably along the A3 (M) corridor, along Portsdown Hill, and from Southleigh Forest, through Southleigh Farm to Warblington.

South Havant (Emsworth and Warblington) and Hayling Island have a close visual and physical relationship with the setting of the Chichester Harbour Area of Outstanding Natural Beauty to the east of the Borough. To the west of the Borough the built form and economic activity of Portsmouth have a strong influence on the Borough's landscape, townscape and seascape. The formation and development of the extensive Forest of Bere within the Borough and its hinterland to the north and west has historically and still currently shapes the Borough landscape. To the north east lies the South Downs Area of Outstanding Natural Beauty (AONB) (currently under consideration as a National Park) which may have a greater influence on the Borough in the future, than it has in the past.

The following sections consider the main natural and human influences that have shaped the Borough landscape, townscape and seascape.

PHYSICAL INFLUENCES

The underlying geology and relief form the basic structure of any landscape. Geology and the process of weathering, erosion and deposition influence the form of the landscape, its drainage, soils and in turn its pattern of vegetation, landuse and to some degree, location and density of settlements.

2.3 Geology

Bedrock Geology

Chalk was laid down during the cretaceous period about 90 million years ago as a white calcareous mud, when much of southern England lay under water. The chalk is a soft, white limestone of organic origin containing microscopic calcareous bodies. Embedded within the chalk are hard flints which are formed from silica. These flints remain long after the softer chalk has eroded and have been exploited by man as tools and as a building material, with the flint villages, walls and churches being a distinctive feature of older buildings and structures throughout the Borough.

By the end of the cretaceous period, some 50 million years ago during the Eocene Period, the sea retreated, and the chalk become folded and exposed due to erosional processes. This process has resulted in the striking chalk escarpment at Portsdown which forms part of the Hampshire basin, with the outer ridges forming the South Downs to the north including Lovedean within the Borough and the Isle of Wight to the south. The Portsdown escarpment is remarkably constant in height throughout its length as a result of the lithological uniformity of the chalk.

Following the Cretaceous period sea levels gradually rose, and layers of mud were deposited and eventually compacted together. These form the most recent bedrock deposits found within the Borough and are referred to as the Tertiary period (now known as the Palaeocene). They are as follows:

Lambeth Group: The Lambeth Group (formerly known as the Woolwich and Reading Beds) are the earliest Tertiary rocks. They consist of brightly coloured mottled clays, silts, sands and gravels that rest on the chalk. The Lambeth Group stretches across the middle of Hayling Island as a broad band and to the north of the Borough at Cowplain.

London Clay Formation: The London Clay Formation is a blue'ish grey sandy clay with occasional pebble beds. It occurs as a band to the south of Hayling Island and as a broader band from Waterlooville across to the northern edges of Emsworth.

Wittering formation: The Wittering formation is part of the Bracklesham Group, which was deposited in a shallow sea about 49 to 42 million years ago. It is composed of sands, gravels with some beds containing fossil shells and shark teeth. It is found around Purbrook to the west of the Borough and along the southern side of Hayling Island where it can become exposed on the beach as a result of storms.

Drift geology

Three major glaciations are recognised in Britain, separated by periods of interglacial warming. During the interglacial periods, sea levels rose and valleys were flooded. When glaciation caused the sea level to fall again, material transported by periglacial water was deposited on the valley sides. At the time of the last ice age the harbour basins would have been wooded valleys with streams running along the course of today's water channels into the River Solent. At the end of the ice age, as the icecaps melted and sea levels rose, the sea gradually flooded the area until something like the present shape of the harbours was reached about 5000 years ago.

The river deposits formed Hayling Island. Raised beach deposits, which can be found along the eastern and western side of Hayling Island, were generally formed during periods of higher sea levels, when ice sheets were at a minimum. Since the glacial period sea levels have risen silting up the harbours, resulting in beach and tidal flat deposits.

Head: Head is a weathered, broken-up material that has moved down by solifluction (repeated freezing and thawing of wet unconsolidated material on slopes). It may also refer to downwash deposits that are still forming and are found on plateaux, hill slopes and valley bottoms. On the mainland it is found within the Hermitage Stream valley to the west of Havant, and along its tributary the Riders Lane Stream across Staunton Country Park.

Erratics: These are the large unusual boulders dotted around the harbour. There are two types, known as erratics and sarsens. Erratics are boulders of granite and other foreign rocks that were probably brought here in floating ice from Brittany and south-west England during the Ice Ages. These geological oddities may also be due to ballast from local ships being deposited/used in local building materials, sea walls etc. Sarsens are cemented sandstones that may have been brought by drifting ice but may also be all that is left of Tertiary deposits that once covered the chalk of the South Downs.

2.4 Landform and Hydrology

Topography

The landform of the Borough is varied due to the result of the underlying geology, past erosion processes and man's intervention. In the north the soft sands, gravels and clays have produced an undulating landform with small rounded hills (such as Gammon Hill at 40m AOD and Dunsbury Hill at 50m AOD) and gently meandering shallow and small river valleys, stretches of which have often been subject to human realignment. This landform slowly flattens out further to the south and towards the harbour side where Hayling Island is low lying with central elevated areas at around 5m AOD.

The chalk escarpment at Portsdown forms a prominent ridge within Hampshire with its far eastern end situated in the western part of the Borough. Within the Borough the ridge height reaches 96m AOD at Fort Purbrook.

Coastline

Hayling Island is a low-lying island characterised by gravel beaches with only a few backshore features. The beach at the southwestern limit of Hayling Island encloses a series of gravel ridges (Sinah Common) which have been the result of accretion, where the shoreline has moved seaward by some 200m during the last century. Recurved gravel and sand spits that have developed in opposed directions define the tidally dominant channels of the Chichester and Langstone Harbours.

The low lying sand banks (Sinah Sands and Sword Sands around Langstone Harbour Mouth and Pilsley Sand and the Winner around Chichester Harbour Mouth) exposed at low tide around the harbour mouths are a result of a complex system of long shore drift and tidal currents. Long shore drift is in an east to west direction, with annual redistribution to replenish beach levels. These at low tide create striking features of smooth golden sand which contrast with the grey mud flats that are more predominant northwards within the harbour basins.

The natural sand dune systems at Sinah and to a lesser extent at Sandy Point represent a landscape which although common along the coast further east are very unusual in Hampshire.

Man made landform

Considerable areas of the Borough have been modified as a result of sea protection measures, tipping and commercial activity.

The southern coast of Hayling Island is vulnerable to erosion by wave action and tidal currents. In 1939, to protect this low lying coast, a concrete seawall was built with groynes adjacent to it. By 1974 these defences had extended to the east and west, for a total of 2.6km. However this seawall exacerbated the natural erosion of the foreshore, with the southern coast of Hayling Island vulnerable to flooding as beach levels continued to reduce and the frequency and severity of overtopping (water carried over the top of a coastal defence) increased. In 1985 the Beach Replenishment scheme was undertaken, which involved importing 500,000 cu.m of shingle from the Owers Bank and placing it on the beach over a length of 2.3km. However such a large amount of material being injected into the sediment transport system further resulted in the rapid transport of material along the frontage. In 1987 timber groynes were built in order to try and control the transport rate along the replenished area and in 1990 a rock groyne was constructed to further reduce the loss of material around Eaststoke Point. In 1992 emergency repairs were carried out at Eastoke Point with a construction of a 150m rock revetment and rock stub groynes. The area is now managed following guidelines within the *Beach Management Strategy Plan for the Southern Frontage of the Eastoke Peninsula* (1999) which includes annual shingle recycling operations, moving shingle from areas of accretion in the west to depleted areas in the east.

Outside the Borough but of great importance to the shape and substrate material of Chichester Harbour basin is the feature of the 'hinge' of the sand spit at East Head which was breached in the winter of 2004. Boulders were imported to protect the hinge and maintain the existing tidal flows in the harbour. The future for the 'hinge'

is uncertain but is recognised as being of key importance to sand/shingle and silt deposition within the harbour.

Remodelling of the harbour side has taken place at Duckard Point Marina where the land on which the marina complex sits is manmade.

The old oyster beds at Stoke were constructed during the Victorian era. The development consisted of a series of lagoons, formed by embankments of London Clay, enclosing parts of the intertidal area, topped by chalk, shingle and brickearth. Following the First World War, pollution and disease forced closure and by 1963 the Council purchased the area for refuse disposal. Two areas of marshland to the west of the former railway line were reclaimed with domestic refuse in 1969, and then abandoned. Since then the beds have been partially restored by retrieving the tipped material and removing it off site. The area is now West Hayling Nature Reserve.

Large scale tipping on the northern edge of Langstone Harbour during the 1960's has resulted in the low mounds which form the Coastal Park at Broadmarsh. Inland, the construction of the A3 (M) also has resulted in an artificial landform of steep cutting slopes and embankments.

Hydrology

The hydrology of the Borough can be divided into four areas, predominantly north of the A27 (T), south of the A27 (T) to the harbour edge, Hayling Island and the tidal harbour basins. These drainage systems are all linked, but the overall character of the drainage is different due to the landform.

For the area covering the north, there are three main drainage systems:

- Hermitage Stream
- Lavant Stream
- River Ems.

Hermitage Stream forms the main drainage system within the north where, from its source in Waterlooville, it flows southwards towards Langstone Harbour, where it is then joined by the Brockhampton Stream just before the estuary. Within the gap between Waterlooville and Havant, the Hermitage Stream has a natural attractive meandering form, but within the built environment of Havant its form had been straightened and enclosed into a regular trapezoidal concrete lined channel. A joint project by Havant Borough Council and the Environment Agency has replaced some of the steep concrete riverbanks with gently sloping banks with waterside vegetation and natural gravel riverbed. Public access to the riverside open spaces was also improved by the provision of new footpaths/cycleways with tree and shrub planting. The restoration scheme was awarded the Millennium Marque for environmental excellence in October 2000.

The Lavant Stream originates at Idsworth on the South Downs and flows south into Havant town centre via Rowlands Castle and West Leigh. From here some of the water is then piped across to the Hermitage Stream, with the remaining continuing

south into a stream known as the Langbrook, which then flows into Langstone Harbour via Southmoor Meadow.

The River Ems originates at Stoughton about 5km north east of the Borough. It enters the Borough at Westbourne where it then forms the Borough boundary. From Emsworth it flows into the eastern millpond and then out into the Emsworth channel within Chichester Harbour basin.

South of the A27 (T), a number of short streams drain the lower harbour plain. A particularly distinctive feature are the emergent springs which are historically, extremely significant in the fact they provided an exceptionally clean water supply from chalk aquifers to the north. The Lymbourn River forms the main one of these. This river which originally provided fresh water for the settlement of Langstone, originates from a spring at the southern end of Lymbourn Road. At the harbour side it flows to the east side of Langstone and into the Langstone Channel. Homewell Spring served the Havant Parchment Works and then flows west to join the Lavant Stream at the site of the former Havant Mill.

Other water courses on the lower harbour plain include the streams around Wade Court and Warblington which have also been widened in places to form watercress beds, now mainly redundant.

On Hayling Island, central areas are characterized by a dense network of manmade ditches, which can be seen aligning field margins. Around the periphery short dendritic stream systems drain towards the estuary edge and minor inlets. Nore Rythe, Fowley Rythe, Sweare Deep, Mill Rythe and Mengham Rythes all drain into the Emsworth Channel, within Chichester Harbour, which is also fed by the River Ems from the mainland.

Langstone Harbour is fed by the Hermitage Stream and Langbrook Stream which both flow through a series of harbour lakes (Broad Lake, North Lake and South Lake) before entering the Langstone Channel. From Hayling Island, drainage flows through a dendritic series of Rythes (Cockle Rythe, Upper Rythes, Rod Rythes) and lakes (Stoke Common Lake, North Lake, Rabbit Lake, Boathouse Lake, Goldring Lake) before also joining Langstone Channel.

The tidal range is comparatively large, typically between 4 and 5m on Spring tides, which means that there is an extensive intertidal area especially in the harbours and strong tidal flows especially at the harbour mouths. Strong tidal processes have resulted in a series of channels, islands and mud creeks, which become progressively more sandy and shingley towards the southern reaches of the harbours.

2.5 Soils and Agricultural Capacity

The variations in geology, drainage and landform have resulted in a variety of soil types across the Borough. The soil quality has been identified as being a 'valuable increasingly rare resource that should be cherished and protected from further development for the sake of future generations' in the paper 'Protecting Hampshire Soils' - a report to Hampshire County Council and DEFRA May 2005 by Cranfield University. The soil types can be separated into four areas as follows:

- i) Soils on the chalk ridge at Portsdown are shallow and lime rich and have given rise to Grade 3 agricultural land, typified by large arable fields.
- ii) Soils north of the Portsdown ridge, the railway line and across to the east roughly north of Southleigh Farm are slowly permeable seasonally wet slightly acid but base rich and loamy. These soils have resulted from the underlying solid geology of clays, sands and the broad band of periglacial head deposits. This has produced poor quality Grade 4 soils, which support a pattern of small-hedged fields of grassland, extensive areas of woodland and open areas of heathland, as found around Blendworth Common.
- iii) South of the Portsdown ridge, the railway line and Southleigh Farm, the drift geology of river terrace deposits has resulted in loamy soils with a naturally high water content. This has produced areas of good quality Grade 1 and 2 agricultural land between Denvilles and New Brighton presently used for market gardening and arable production. Towards the harbour edge around Warblington, periglacial head deposits as well as alluvium and raised marine deposits have formed perpendicular narrow bands between the river terrace deposits producing poorer quality Grade 3 agricultural land, characterized by small hedged fields of grassland and woodlands. Other areas covered by river terrace deposits include the central area on Hayling Island where the freely draining slightly acid loamy soils to the north have produced quality Grade 1 agricultural land resulting in an open landscape of arable and intensive market gardening. Further to the south where the soils are loamy with a naturally high water content this has produced central areas of Grade 2 agricultural land also characterised by open arable production.
- iv) Around the eastern periphery of Hayling Island there is a band of raised marine and raised beach deposits which have resulted in poor quality Grade 4 agricultural land, characterised by coastal grazing marsh.
- v) The harbours provide nursery areas for sea bass and there is a long history of oyster bed farming which has resulted in several man made beds, the largest of which is off NW Hayling Island. With the collapse of the industry in the early 20th century, these features are left in situ and provide valuable habitat in their own right.

2.6 *Ecology and Vegetation*

The vegetation pattern of Havant Borough is distinctive and varied as a result of the underlying geology, the drainage pattern, local climate conditions and man's intervention. The main influences for the north of the Borough and Hayling Island to the south of the Borough can be summarised under the following headings:

North of the Borough

- Forest of Bere
- River systems including Hermitage Stream and tributaries
- The designed parkland landscape
- Rich river terrace deposits producing good quality agricultural land
- Chalk ridge
- Urban development and subsequent range of housing densities.

Hayling Island

- Raised marine deposits and sea defences creating and retaining land
- Tidal range leading to areas of salt marsh
- Open exposed coastline.

North of the Borough

The Forest of Bere – the north west of the Borough: Within Cowplain and Waterlooville the urbanisation of the original undeveloped landscape of small fields, woodlands and areas of heathland has led to an urban area characterised by remnant woodlands i.e. the Queen's Inclosure, bands of woodland, and individual mature trees. Further to the east beyond the settlement edge this original forest landscape of woodlands, wide hedgerows, and small fields is still evident adjacent to the A3 (M).

River systems including Hermitage Stream and tributaries: The town and suburbs of Havant have a different vegetation character to the urban development to the west. The stream corridors and adjacent open spaces (allotments, sports pitches and recreation grounds) have led to undeveloped corridors characterised by native trees and shrubs and areas of rough and manicured grassland supporting a variety of wildlife, such as water voles. Within this area there are also some mature mainly oak trees which are remnant from the previous agricultural landscape of small hedged fields and woodlands.

The designed parkland landscape: To the north and north east of Havant, there are some surviving remains of designed parkland which form an important part of Southleigh House and Staunton Park. These areas are characterised by individual mature trees, small groupings of trees within areas of grassland and larger areas of woodland.

Rich river terrace deposits producing good quality agricultural land: The change in the vegetation pattern is pronounced further to the south with the improvement in soil conditions giving rise to large productive arable fields with little hedgerow structure and areas of intensive market gardening. Further to the south this belt of good quality agricultural land is seen to be interrupted by bands of small pasture fields and thick hedgerows that are the result of the underlying periglacial deposits which have given rise to less productive soils.

Chalk ridge: The underlying chalk at Portsdown has led to the development of large arable fields, thin hedgerows and isolated woodland copses, typical of a downland landscape. However part of this downland landscape, due to its proximity to urban settlements, has also been developed as a golf course altering the vegetation pattern to long swathes of grassland drives which have then been subdivided by bands of native and non native trees and shrubs.

Urban development and subsequent range of housing densities: The style, density and age of urban development have a strong influence on the vegetation pattern within the settlements. The 1930's semi detached housing with long rear gardens, as seen at Widley, has produced collective broad bands of varied mixed exotic and native vegetation within the built environment; whilst the low density layout of housing units at Warren Park has produced open areas of public grassland. The historic core of Bedhampton, with its characteristic large gardens, has produced an area

characterised by mature exotic and native trees. Further to the east of Havant along the Emsworth Road, the lower density area of older housing with large private gardens has also produced a landscape characterised by mature trees and hedgerow boundaries.

The ecological character of the north of the Borough is strongly influenced by the former Forest of Bere and by the tertiary sediments and glacial deposits that mask the chalk. There are many patches of ancient semi-natural woodland. Notable larger woodlands are found at Queens Inclosure and in Staunton Country Park and include areas of mature oak woodland and some active coppice with standards. Many other smaller patches are also found across the area often isolated within urban development. The agriculturally poor soils of this area support neutral grassland, and heathland is found in the sandier areas, notably at Blendworth Common.

The thin soils that have developed over the chalk give a slow rate of plant growth. This encourages the growth of a very diverse range of low growing herbs that are so characteristic of downland turf including the colourful Scabious, Greater Knapweed and Harebell. Once covering extensive areas of the South Downs this habitat is now scarce, fragmented and under threat from changing patterns of land use. The covering mantle of Tertiary sediments and extensive development has isolated the remaining patches of chalk grassland, notably at Portsdown Hill.

Much of the mainland part of Havant is dominated by urban development, which supports a mosaic of habitats in gardens, playing fields, small woodlands, verges and street trees. There is considerable biodiversity interest in private gardens which provide important nesting and foraging sites for birds and insects.

Hayling Island

Raised marine deposits and sea defences creating and retaining land: Hayling Island is characterised by a broad band of open coastal grazing marsh along its northern and eastern shorelines and in places narrowly along its western edge, resulting from the low quality soils which have developed from the raised marine deposits. Within the northern part of Hayling Island, further inland from this band of coastal marsh, the vegetation pattern dramatically changes to productive open arable fields, with thin hedgerows and open areas of market gardening which are a result of the more fertile river terrace deposits. Further to the south small pasture fields characterised by thick hedgerows interlock around the settlements. South of Fleet the landscape again becomes more open with arable fields and thin hedgerows. While along the northern edge of South Hayling a pattern of smaller fields predominantly of grass connects around the settlement edge.

Tidal range leading to areas of salt marsh: Surrounding the eastern shoreline and leading up to Emsworth is a wide band of salt marsh vegetation which is also subdivided by drainage channels.

Open exposed coastline: The open and exposed coastline and changing shoreline has limited tree growth along the south shoreline of the island. The dunes have given

rise to areas of marram grass and where trees have developed these are stunted, twisted and gnarled.

The maritime interest is much stronger to the south of Portsdown Hill. Important coastal habitats abound in Langstone and Chichester Harbours and are found against the urban edge along the coast to Emsworth. Coastal grazing marsh is found along the southern coast and on the north of Hayling Island, with low lying, brackish areas associated with Sea Rush and Saltmarsh Rush.

Internationally important habitats are found in the intertidal zone between land and sea. Chichester and Langstone Harbours form large estuarine basins. At low tide extensive mud and sandflats are exposed, drained by channels which unite to make a common exit to the sea. The harbours provide important feeding sites for wintering wildfowl and waders and also breeding birds.

Saltmarsh vegetation is found fringing the estuaries and in minor inlets. Saltmarshes support plants which are resistant to the salt and sea, including Glasswort, Cord Grass and Eel grass. In the higher reaches of the saltmarsh, which builds up over time, inundation by the sea is less common and plants which are less tolerant to salt can thrive such as Sea Purslane and Common Sea Lavender. The saltmarshes are cut by a intricate, winding network of creeks which support a specialist invertebrate fauna. A brief overview of foreign invasive species in the marine environment would be useful. The southern coastal strip of Hayling Island consists of sand and gravel deposits which support diverse maritime plant communities. Sandy Point is a particularly fine example of these habitats with a complex mosaic of maritime heath and acid grassland, together with saline grassland, sand dunes and scrub.

The diverse range of habitats across Havant Borough is testament to the long and complex interaction of the physical environment with the people who have settled and shaped the landscape. The future protection and enhancement of the rich biodiversity resource is essential for the future landscape character of the Borough.

HUMAN INFLUENCES

The landscape as it exists today is a product of human activity; varying in character from one place to another in relation to the nature and intensity of that activity. This section sets out the human activities which have influenced the chronological development of the character of the Havant landscape. In many cases traces of these historic activities can still be seen in the modern landscape. Some of the most significant are described in general terms below, but a fuller description of how these traces of the historic development of Havant Borough contribute to the current landscape, townscape and seascape character is contained within the landscape character area descriptions in Section 5.

This synthesis of the archaeological and historical development of Havant Borough (the Study Area), is derived largely from archaeological records held by Hampshire Archaeology and Historic Building Record (ABHR); the Archaeological Assessment for Havant, which was prepared as part of the Hampshire Extensive Urban Survey; an appraisal of the results of the map regression used to produce the detailed Historic Landscape Characterisation (HLC); and documentary research.

In total, there are 467 archaeological findspots and sites entered on the ABHR within the Study Area, ranging in date from the Palaeolithic to the Modern period. This evidence suggests that there are certain locations within the Study Area which consist of multiple phases of human activity; in particular Camp Hill, Crookhorn, central Havant, Langstone and the north-western part of Hayling Island. Two factors are considered vital to our understanding of the continuity of these settlements, which are firstly, the survival of archaeological deposits in a particular location, and secondly, their subsequent discovery. This could be seen to bias the distribution but does reveal the extent to which the area around Langstone Harbour, whether on the mainland or the island, has been extensively occupied by humans since the last Ice Age, and possibly earlier. The history of the Study Area is reviewed and presented in chronological order.

2.7 Archaeological and Historical Development

Early prehistory

Palaeolithic (500,000-10,000BC), Mesolithic (8,500-4,000BC) and Neolithic (4,000-2,400BC)

Stone tools of Palaeolithic and Mesolithic date are recorded across the Study Area. Various flakes of worked flint have been discovered along with stone axes, although dense concentrations have been discovered at Camp Hill, Crookhorn and at St Thomas Church, Warblington. Scatters of Mesolithic and Neolithic worked flint have been retrieved from the North Binnes Island in Langstone Harbour and there remains the possibility for submerged landscapes to survive within the harbour which may contain early prehistoric period remains.

A Neolithic stone carved macehead has been discovered on Hayling Island, near Tye. The macehead was perhaps used in high status ceremonies, which from anthropological studies related to the definition of leadership and establishment of kinships during this period. Numerous polished stone axes have been discovered

across the study area. These axes are not functional but are believed to represent a form of trade and exchange beyond the region within the Neolithic period.

One particular monument to survive from this period is Bevis Grave Long Barrow. This Scheduled Monument is located on the western edge of the Study Area, on the east of Portsdown Hill. Long barrows were constructed as funerary monuments during the Neolithic period. Its location on raised ground above the coastal plain made it a focal point within the landscape, and its continual significance extended beyond the Prehistoric period as excavations have revealed the barrow was the focus for later Saxon and medieval burials around the monument.

Bronze Age (2,400- 700BC)

There are numerous Bronze Age remains recorded across the Study Area, which vary from earthwork monuments to metalworking hoards and findspots. On the eastern side of Hayling Island a barrow is recorded, and near the western boundary of the Study Area near Bevis Grave, a linear earthwork or ranch boundary survives. These monuments represent early attempts to control land and establish ownership.

Activity has been recorded at a raised shingle beach, west of Langstone, and the coastal fringe between Haying Island and the mainland is dotted with evidence for Bronze Age activity. Clusters of cinerary urns and Bronze Age material such as metalwork, which are indicative of ritual deposits from this period, are located along the coastline. At the narrowest point between the mainland and Hayling Island, a concentration of finds has been recovered. This reflects the longevity of this crossing point throughout history and the significance of the coastal fringe. On Hayling Island, Middle Bronze Age hoards of metalwork are recorded near Fleet and Gablehead, South Hayling. These hoards are indicative of ritual activity, although the exact nature of these finds is not understood completely.

Iron Age (700BC- 43AD)

The distribution of Iron Age sites is principally limited to the coastal plain, although a small enclosure is recorded near to the Bronze Age ranch boundary on Portsdown. Activity from the Iron Age within the Borough appears to be dominated by the production of salt from Langstone Harbour, and in particular the northwest corner of Hayling Island. It is from here that archaeological finds indicate the existence of prehistoric salt production. Further evidence for salt making is recorded near Mill Lane, Langstone. The control of the production and exchange of salt was clearly important and it is not surprising that a hillfort was constructed at Tourner Bury, Hayling Island, during this period. Many of the undated prehistoric finds and sites within the Study Area appear to relate to burnt flint and pot boilers, which are postulated to relate to salt production. Salt production continued into the Roman period and beyond.

Faint traces of these remains can still be seen on the coastal fringes of the mainland and in particular around the shoreline of Hayling Island. Although these historic 'industrial' areas are becoming overgrown and reverting slowly back to salt marsh or scrub, shallow water channels, slight banks and flat salt pans, for extracting salt from

sea water through evaporation, can still be distinguished, for example at along the northern shore of Hayling Island and at Mengham Salterns.

Roman

(43-410AD)

The continuation of salt production and the network of Roman Roads across the Study Area appear to characterise the distribution of finds and sites for this period. Havant is located on the crossroads of two important roads; the east-west Chichester to Bitterne road and the north-south Rowland's Castle to Langstone road. Numerous pottery finds within Havant allude to a degree of activity, although the exact extent and character of this activity is unclear. Beyond the area of the crossroads there is more substantial evidence for buildings. Villa sites are located along the east-west road between east of Havant, Warblington, Langstone and Little Park. An aisled villa at Purbrook is recorded on the western side of the Study Area and is associated with a tile kiln. A further villa site is postulated at Bedhampton.

Building foundations have been found at Cowplain and finds, including a burial at Leigh Park, have been recorded in the northern part of the Study Area. An occupation site was located in the area of Oak Park School and appears to have been located on an earlier prehistoric settlement. On Hayling Island, a large temple that may have existed in the Iron Age continued to be used and was expanded during the Roman period. This indicates an extensive occupation of the landscape in the Study Area during the Roman period.

Saxon

(410-1066AD)

There is evidence for Saxon occupation within the Study Area and in particular at Emsworth. Activity, which includes the deposition of a midden, indicates potential early Saxon settlement. The temple on Hayling Island remained a centre of activity and became the focus for early Saxon settlement. The first documentary reference to Havant is in 935AD, whilst North Hayling and East Stoke are both mentioned in 956AD.

Medieval

(1066-1499AD)

The Borough appears to have been sparsely settled during this period, with the majority of settlement situated on the coastal lowlands and on Hayling Island, while the northern part of the Study Area was dominated by the Forest of Bere with its related hunting lodges, numerous fishponds and Warren Deer Park. A medieval settlement at Purbrook, which consisted of a number of house platforms, has been recorded and it is believed that it represents the southern boundary of the Forest of Bere.

Small market towns existed at the port of Emsworth, and at Havant, whose port lay at Langstone to the south. While the situation of Emsworth was determined by the small natural harbour at the mouth of the River Ems, that of Havant was dictated by the coincidence of a natural spring at the crossroads of two primary Roman routes. Other small hamlets and settlements beyond the historic core of Havant are recorded

at Leigh Park and the site of the deserted medieval village of Warblington. Bedhampton was also a small village in the medieval period, and a manor was recorded here in the Domesday Book. Medieval settlement on Hayling Island included Northwood (now North Hayling) with its 12th century church, and Southwood whose church dates to the 13th century.

Unfortunately, only a handful of buildings survive from this period, and of the 14 listed buildings of this date, four are churches. Vernacular buildings, which would have used locally available building materials are very limited, but are of sufficient number to indicate that the structural form and materials at this date were timber-framing with thatched roofs, though several have been re-fronted in brick at a later date, obscuring their authentic form and materials.

The pastureland around Havant and on the Downs was ideal for sheep, and associated industries developed using the non-food elements of the flocks, utilising the ample supply of pure clean spring water. The production of parchment, using the soft inner layer of the skin, developed early, though was not produced on a large scale until the mid 19th century; and leather tanning also utilised the two local resources. Woollen cloth was a major local product of the area, with water-driven fulling mills a feature of the landscape from the 12th century. Salt production is recorded to have continued during this period and salterns were located at Wade Court on the mainland, whilst near the southeast corner of Hayling Island, Mengham Salterns was one of the largest salt production areas in the region.

Post-medieval (1500- 1799AD)

There is little in the archaeological record to suggest that the character of the landscape changed significantly during this period, though research shows that certain shifts took place in the nature of landuse and the economy, particularly after the mid 17th century, and that the 18th century was generally a period of prosperity and expansion.

A rapid decline in the wool cloth trade in the 17th century was brought about by a 16th century Act of Parliament regarding a new standard size of cloth, which the local industry was unable to comply with. The park at Warblington was put under the plough in about 1628; that at Bedhampton in the early 18th century, and the enclosure of the former Common Fields associated with both Havant and Bedhampton took place by common agreement at a comparatively early stage (Reger, 1975). By the early 18th century, the land around both Chichester and Langstone Harbours was renowned for the production of corn, and the former fulling mills were replaced by mills to process the new commodity, which was then sent to the naval dockyards in Portsmouth, or shipped to London from the local ports of Emsworth and Langstone.

Little of the earlier field systems survive within the current landscape due to the continuation of the area for cultivation which was subject to 'improvements' during the late post-medieval period and subsequent centuries. However, the slight curving boundaries of the small closes around Warblington retain the underlying origin of these fields defined by earlier ridge and furrow ploughing.

Brick production became a significant local industry during the 18th century both in the northern part of the Borough, and on Hayling Island. Chalk pits and lime kilns also became a common feature of Portsdown Hill at this time, and the coastal salterns continued in production.

Improvements to the transport network also took place during the 18th century, with the creation of better-maintained turnpike roads which brought more 'passing trade' to the area, and led to the establishment of a number of large coaching inns, both in the towns, and at principal intersections of the new turnpike roads, which then became the focus of further development.

The improved communication with other parts of the country, and the increase in travel brought about new influences from outside the Borough, particularly in the style of buildings. Brick and tile became the fashionable building materials of choice during the Georgian period, and their local availability meant that they quickly superseded the traditional timber and thatch of the local vernacular. Within towns, timber-framed buildings were often re-faced in brick, giving them a contemporary appearance, and obscuring their true age.

The Nineteenth Century (1800-1899)

Arable farming expanded further during the 19th century. The brickearth soils around Havant and Bedhampton were some of the finest 'intermediate' soils in the British Isles, and the area became an important supplier to the rapidly expanding city of Portsmouth, with its Garrison and the Fleet. However, agriculture in the Borough was particularly badly hit in the last quarter of the century by competition to its two main products by cheap wheat from the United States, and cheap mutton from New Zealand.

The landscape particularly in the northern part of the Borough saw the loss of much of its woodland and wood pasture characteristics. Landscape changes which included the enclosure of new agricultural fields from woodland and downland (known as assart) by creating geometric shaped fields defined by regular straight boundaries underlie the 'improvements', and these field systems still survive in the rural parts of the landscape today across the entire Borough and provide its predominant rural character. These 'parliamentary type' fields not only characterise the Havant rural landscape but also as many of the property boundaries within built-up areas are derived from the earlier field patterns.

Areas of woodland within the Borough reflect the earlier landscape character before enclosure and improvement. Patches of broadleaf woodland, the largest area being The Queen's Inclosure, are remnants of the assarted forest and wood pasture. Elsewhere the woodland was cleared and designed into formal parkland around Staunton and Southleigh parks.

Industry within the Study Area included the continuation of the salterns into the mid 19th century, and the continuation of brickmaking across the Borough. The tanning and parchment making industries expanded, and were joined by glove making; and the brewing and malting industries expanded, again taking advantage of the ample supply of pure spring water. Oyster fishing in Chichester and Langstone Harbours

increased to supply the expanding population. Traces of the oyster beds, which consist of channels cut into the mud flats, can still be observed at low tide near the shoreline by Emsworth and on the northwest corner of Hayling Island.

The archaeological record for this period is characterised by three specific factors; landscape gardens and parks, industrial sites and the increase of military activity. The area of the Forest of Bere was landscaped into parkland and the creation of lodges is recorded across the area between Cowplain and Purbrook. Southleigh and Staunton Park were laid out during this period, and the earlier, medieval deer park to the west of Wade Court was redesigned in the 19th century.

A significant development in the middle of the century was the coming of the railways. The development of the railway network across the country effectively removed Havant's great advantage of its two ports, and coastal trade declined. The railways also brought the possibility of importing cheap, mass-produced building materials, and the final decline of the local vernacular materials became inevitable. However, although Welsh slate became cheaply available, the well established local tile industry appears to have remained competitive, though architectural form and detail became more standardised across the south of the country. Interestingly, however, the cartographic record indicates relatively little built development within the Borough during the Victorian period, the largest pockets of building being at Waterlooville, and West Town, Hayling Island, where an attempt was made to create a fashionable resort.

Military influence appears to have been limited in the Borough to the eastern end of Portsdown, with the construction of Fort Purbrook, and a redoubt and semaphore station in close proximity on the raised ground of Portsdown.

Modern

(1900- present)

The 20th century saw both the decline of traditional industries in the area, and the exponential growth of built development within the Borough. Agriculture, milling, oyster fishing and ship-building were all on the point of extinction by the turn of the century, yet the scale of built development between the late 19th century and 1910 was considerable. Portsmouth had grown into a crowded industrial, commercial and military centre, and, with the availability of easy transport links, the outlying towns of Havant, Emsworth and Waterlooville offered an attractive, peaceful alternative, with further development also taking place at a range of locations on Hayling Island.

Further residential development in the 2nd and 3rd decades of the century saw considerable expansion of the settlement along the London to Portsmouth Road (A3) and along the south coast of Hayling Island, with smaller areas of expansion at various locations around Havant, and to the west of Emsworth.

The archaeological record for the modern period is dominated by the Second World War defence of the country and numerous pill boxes across the Borough. On Hayling Island anti-aircraft batteries, anti-tank blocks and bombing decoys are recorded and reflects the significance of the Borough to repelling an invasion along the southern coast and the defence of surrounding settlements such as Portsmouth.

It was the immediate post WW2 period, however, which saw the most notable change to the settlement pattern of the Borough. Portsmouth had been extremely badly damaged by bombs during the war, with 7,000 people made homeless. The urgency of re-housing them did not allow for the re-building within the city, and in 1946, Portsmouth City Council purchased a large portion of the Leigh Park Estate from the family of Sir Frederick Fitzwygram, and proceeded to build what at the time was the largest municipal housing estate in Europe (Cousins & Rogers, 1993), in accordance with a ten year development programme. This saw the incremental development of much of the area to the north of Havant and Bedhampton, which was further extended during the 1960's and 70's. These two decades also saw the massive expansion of the residential areas of Cowplain, Waterlooville and Purbrook in the west of the Borough, which has been further extended eastwards towards the end of the century.

New industries have come to replace the extinct traditional ones, including mechanical, electrical and instrument engineering, plastics, high-tech. industries, and others associated with the leisure industry of sailing, including yacht-building and maintenance. The former group of these tend to be concentrated in distinct industrial areas and estates, while the latter have taken over many of the sites of former traditional industries such as ship-building yards, quays, and mill ponds.

The extraordinary expansion of the residential areas of the Borough has led to the loss of much of its former historic character, particularly in former rural areas. Relatively small historic cores survive in the two main market towns, and some other early settlements, though in most places their character has been diluted by later development. The Borough is now predominantly in two halves, the northern half effectively serving as an overspill 'dormitory' for Portsmouth, and the southern half focussed on the important tourism and leisure industry.

2.8 Cultural Associations: Key features

Forest of Bere

The northern part of Havant Borough forms the eastern part of the Forest of Bere. Originally known in Roman times as the Forest of 'Baer' the landscape was managed and organised specifically to support its communities by sharing the land's resources over a very large area. This was achieved by the creation of many commons. The result was an open landscape of trees, heathland, farmland, wood pasture and coppice. By the 11th century, the Royal forests had been created which is when the forest was re-named the 'Forest of Bere'. The Forest of Bere was unique as it was very badly managed, largely due to the fact that it was not popular with the King who preferred to hunt elsewhere. Eventually when the Royal Forests lost their popularity, many were disbanded, but because the Forest of Bere had become so poorly managed it was the last Royal Forest to be broken up. This has been beneficial as many features of the forest are still evident within the landscape today. The 'Forest of Bere' makes a significant contribution to the character of Havant Borough today, with a number of mature oak woodlands (including the Queen's Inclosure) within the housing areas of Waterlooville and Cowplain and the networks of small fields and hedgerows with standard trees within the Havant Gap. Some

large landholdings of the former forest were sold off to wealthy local gentlemen, who transformed them into fine parkland estates such as that which survives at the Staunton Country Park.

Pathways and recreation routes:

Long distant recreational routes have been created over the last 20 years linking places of interest as well as picking up on original historic route ways. These often extend outside the Borough. They are as follows:

Hayling Billy Coastal Path: The Hayling Billy Trail is a footpath which runs from Havant town centre (New Lane level crossing) southwards through Langstone and onto Hayling Island where it becomes the Hayling Billy Coastal Path. The route of the Trail mostly follows the old 'Hayling Billy' Railway which closed in 1963.

Wayfarer's Walk: The Wayfarers Walk extends 70 miles between the coast near Portsmouth and Inkpen Beacon just across the Berkshire border. It connects with other long distance paths at Emsworth (the Sussex Border Path), at Bedhampton (the Solent Way) and at Inkpen Beacon (the Test Way).

Solent Way: The Solent Way is a 60-mile long-distance coastal walking route from the seaside town of Milford-on-Sea to finish at Emsworth Harbour.

Staunton Way: The Staunton Way is 12 mile long-distance walking route passing through Hampshire. It starts at its northern end at Queen Elizabeth Country Park, near Petersfield where it leads southwards to the Staunton Country Park on the fringes of Havant Borough and along the Hermitage Stream to Langstone Harbour.

The coastal plain typically has few bridleways. Horseriding is popular in the area and various permissive routes have been established in the area, especially routes on Hayling Island. This has helped to reduce the need to ride on roads and conflict with road users.

Hayling Island and contemporary events

Hayling Island since the last century has become a popular tourist and visitor destination, with the construction of the Hayling Billy railway, the access by motor car from the 1930's and more recently the development of water-sports activities.

Hayling Billy: In 1860 The Hayling Railway Company was formed and the line first opened to goods traffic in 1865 and passenger traffic in 1867. This branch line was something of a curiosity to railway enthusiasts and onlookers, the attraction being the diminutive size and quaintness of the locomotives, in relation to the coaches. A weight restriction on the bridge limited it to carrying nothing heavier than the Terrier size of locomotive (28 ton 5 cwt).

The line finally closed in November 1963. The main reason for the closure was quoted as being the increasing cost of maintaining the timber trestle bridge by which the Hayling Billy Line crossed from the mainland to Hayling Island, which included an opening span with a signal box perched above the waters of the harbour. The bridge superstructure was removed very shortly after the line closed, although to

this day the lower parts of the columns supporting the bridge remain and are clearly visible at low tide.

Originally keen enthusiasts had wanted to restore the Hayling Billy, but have now set up on a reduced scale the a new 2ft gauge light railway on the coast of Hayling Island which runs for just over 1 mile between Beachlands and Eastoke Corner. It is owned by Bob Haddock, who built the line between 2001 and 2004 assisted by the volunteer members of the EHLR Society.

Funlands: As the Island grew in popularity frequent travelling country fairs began to be held at Beachlands. When the site was bought by Billy Butlin in 1924, these travelling fairs started to become permanent attractions and the forerunner to the modern fairground that sits on the same site today. One of the biggest attractions of this early fairground was Monkey Island. Set amid a small boating lake, Monkey Island was a rocky outcrop inhabited by live monkeys. Today the fairground, under its modern name of Funlands, offers attractions rather different to the old Monkey Island including dodgems, under cover amusement arcades, swing boats and a small roller coaster.

Hayling Golf Course: Hayling Golf Club was founded in 1883, by Colonel Sandeman of the Sandeman family, famed for Port & Sherry production. Although originally only having a nine-hole course with the first tee located in front of the Royal Hotel, Hayling Golf Club is now 18 holes and covers an area of 190 acres. The Sandeman Family lived at Westfield House, once the most significant residence at West Town, Hayling, and where John Glas Sandeman buried the horse on which he charged with the Heavy Brigade at the Battle of Balaclava in 1854.

Yachting and sailing: In the autumn of 1921 seven sailing enthusiasts met to form the Hayling Island Sailing Club, although recreational sailing was beginning to be enjoyed by many people, any organised activity had come to a halt with the First World War. Shortly afterwards small fishing and waterside communities such as at Hayling looked for organised events and activities. The first clubhouse was originally a fisherman's cottage adjacent to Salterns Quay, and known as Quay Cottage. After a short while, the club moved into the premises now occupied by the Mengham Rythe Sailing Club. In 1936 the club moved to its present site a bulbous tip of a narrow peninsula, known as Sandy Point. On Friday 14 March 2003, HRH Princess Royal, officially opened the new lottery funded clubhouse as seen today.

Additional to the Hayling Island Sailing Club there are 15 other boat related clubs within Chichester Harbour including dinghy sailing, cruiser and motor boats. Regattas, open meetings and races, all organized by these Clubs, add to the colour and life of Chichester Harbour. For Langstone Harbour there is the Hayling Ferry Sailing Club which is situated on Hayling Island at the entrance to Langstone Harbour. Hayling Island Sailing Club enjoys a high reputation for its organization of World and National Championships, Olympic trials and open events; with local man Mark Covell, Olympic silver medallist for sailing, who was born, raised and learnt to sail on Hayling Island.

Wind surfing: Peter Chilvers invented wind surfing on Hayling Island in 1958. Due to this Hayling Island has been regarded as the spiritual home of wind surfing within the UK. Popular destinations for the sport are the Seafront, Langstone Harbour and Northney Marina.

Kite surfing: Kite surfing has recently become popular as well on Hayling Island. West Winner sand bar, which is visible from mid to low tide; has ideal learning conditions with shallow water for over a kilometre out to sea which also naturally limits other watercraft within this area.

The ability to restore and develop past cultural influences into meaningful places has led to the redundant oyster beds to the west of Hayling Island being developed in 1996 as a wildlife haven which has become an important seabird breeding site. Originally oysters were farmed on Hayling since as early as 1819, right up until the 1970s and became a delicacy that was exported throughout the country under the classification of "Emsworth Oysters". Large complexes consisting of several pens separated by a series of bund walls were built to contain the oysters at varying stages of growth. Although large sections of the bund walls have since collapsed into the harbour, much of shape and scale of the beds can still be seen today following restoration at the beginning of this century.

A number of prominent people have lived in the borough, including two internationally renowned writers who are:

P.G. Wodehouse (1881-1975)

The writer and journalist P.G. Wodehouse came to Emsworth to visit a friend at a small preparatory school called Emsworth House. He became a schoolmaster here, and it is said that the quiet community in Emsworth suited him and he was able to produce a quantity of written work. From Emsworth School he moved into a property of his own known as Threepwood House on Record Road, which backed onto the grounds of Emsworth House. He lived in this property from 1904 to 1914, and it is now included on the List of Buildings of Local Interest. His stay in the area is marked by his use of local place names in his Jeeves and Wooster novels.

Nevil Shute (1899-1960)

In 1939 the novelist Nevile Shute and his young family moved to the Old Mill at Langstone, owned by a friend, Flora Twort. He is also reputed to have moved to Langstone Towers on Langstone Harbour later the same year, and between 1940 and 1951 he lived at Pond End House on Salterns Lane on the east side of Hayling Island, overlooking Chichester Harbour. At this time in his life he had already had some success as a writer with *Lonely Road* (1932) and *Ruined City* (1938). By the time he had moved to Langstone he had joined the Royal Naval Volunteer Reserve as a sub-lieutenant in the Miscellaneous Weapons Department.

Others cultural associations with the Borough include:

W G Stead, the 19th century social reformer and editor of 'Pall Mall', the 'Gazette' and 'Review of Reviews', owned Holly Bush House on Selshire Road, which he used as a holiday home from 1895 to 1912. He is said to have bought the house with the proceeds from his first paperback publishing venture 'Books for Bairns' and 'Penny Classics'. He was lost in the Titanic disaster of 1912, but is remembered by the Stead/Ritchie Memorial Garden, established at Mengham in 1986, which

commemorates both Stead, and *Norman Ritchie*, a blind local man who set up the talking newspapers for the blind project.

It is also reputed that the 18th century house, 'The Elms' in Bedhampton, was extended in the early 19th century to accommodate a visit by the *Duke of Wellington*. *Princess Catherine Youriesky*, the youngest daughter of Tsar Alexander II of Russia, came to live on Hayling Island to seek relief from asthma, living first at The Haven in Sinah Lane, and, between 1936 and 1958, in one of a pair of church-owned cottages on Havant Road.

Havant Town Fair: In the 15th century Havant was granted the right to hold a two day town fair on the feast of St. Faith's (6 October) but was abolished in 1871. The tradition is now still enjoyed in the form of the St. Faith's Town Fair held annually in August.

Emsworth Food Festival: Emsworth's Restaurants and Public Houses provide a variety of special menus and events with street entertainment. The programme is designed to cater for all ages and tastes.