Thematic summaries

Transport and trade

Transport and its associated industries constitute one of the most important aspects of the AONB. The fact that the harbour was a port had a major impact on the development of the whole area.

Trackways undoubtedly existed in the Iron Age, and perhaps earlier, but the first archaeological evidence for roads appear in the Roman period. These would have had a major impact on social and economic aspects of the harbour, and may have been built initially by the incoming Roman military. As has been noted above, roads within the AONB include roads from the harbour to Chichester and the road from Chichester to Bitterne running close to the line of the modern A259. Possible roads have also been identified at West Thorney and at Mill House.

Improved sea and river transport would also have been important in the Roman period. The construction of the Roman harbour at Fishbourne would have had a major impact on the AONB, not least for trade. The Roman quay with its wall built of stone blocks, possibly with a series of lock gates, would have been an impressive sight as ships sailed up to the timber-retained terrace of the Flavian palace.

The port was also important in the medieval period, although it was Dell Quay, not Fishbourne, that predominated. The Port of Chichester was officially established by Edward I. A customs service and a dozen or so customs ports were established by 1275. The port was listed in the Close Rolls and in 1353, became a Staple Port officially empowered to deal with wool export. Dell Quay was the only official port of landing for foreign trade within the harbour, but there were also a number of smaller creeks within the AONB where trade could take place. Wool was the principal export from 1275 onwards and some 500 sacks were exported in 1279. By the 14th century the chief import was probably wine, with both Emsworth and Bosham named as places where this commodity could be landed within the harbour.

From the 15th century onward trading links between the harbour and London increased as the population of the capital expanded. In 1585, 186 quarters of wheat were sent from Chichester. By 1614, this amount had increased twelve-fold. The lucrative trade in grain, malt and flour continued to increase until the early 18th century. Copperas, used in dyeing cloth, was also exported – in 1637 10 tons of copperas stones were sent to London with wheat, malt, barrel hoops and woad.

In the 1670s the western boundary of the Port of Chichester was redrawn as part of a general reorganisation of the customs ports. This move favoured the increasingly important Emsworth, and the corn trade that had already been established continued to grow. Hendy's Quay was built, possibly around the same time that the Hendy family built the Slipper Mill and pond before 1750. Hendy's Quay is shown on the 1st edition OS map at 475290 105390. A shipbuilding yard stands nearby at 475230 105510, within a cluster of satellite timber yards, a saw mill, and a smithy.

In addition to foreign trade, the local coastal trade was also important where travel by land was difficult and dangerous. From the 17th century onwards, in fact, coastal trade was more important to Chichester than foreign trade.

As a consequence of the increase in mills around the harbour in the mid 18th century, trade shifted from being predominantly unmilled grain to flour. Another important trade was in malt, with maltsters in Havant and Chichester.

By the mid-17th century coal was also being imported, with Emsworth as most important landing place by the early 19th century, dealing with half of the 20,000 tons of coal imported into the harbour in 1848. Emsworth became increasingly important for harbour trade in the 19th century and by 1836 some 40% of all coastal cargoes passed through Emsworth, in contrast to Dell Quay that accounted for only 28% of this trade.

After the coming of the railways in the mid 19th century there was a steady decline in commercial traffic in the harbour. Improved inland communications and the increasing size of commercial craft meant that coastal trade in the smaller ports declined. By the 1920s permanent bridges had replaced the old swing bridges, cutting off the Canal Basin from the harbour. From 1930, trade had all but ceased in Dell Quay. For Emsworth, long-distance fishing replaced declining trade at the end of the 19th century, but this had ceased by the 1920s. The character of the harbour changed from a trading port to a pleasant backwater, enjoyed by small boat enthusiasts.

The Sussex section of the Portsmouth-Arundel Canal runs from Birdham to Ford and has been discussed in detail above. The canal opened in 1821 and was designed by the engineer John Rennie (1761-1821). Early commercial hopes for the canal of were not realised, and the rapid growth of railway services and steam packets finally killed off through traffic to London in 1840.

Wrecks and other maritime features underline the importance to the harbour for understanding the maritime history of the area. The Hampshire and Wight Trust for Maritime Archaeology (HWTMA) recorded a number of hulks and maritime features (HWTMA 2002). These included a large wooden fishing-type vessel at Dell Quay with several other vessels of relatively simple construction and representing very different traditions of boat building were identified to the north of this. The 20-ton gaff rigged ketch *The Langstone* lying in mud near the village of the same name allows a glimpse of the 18th and 19th centuries when such vessels were a common sight in the harbour carrying sand, gravel and grain., Other remnants of the harbour's maritime transport and trade identified by HWTMA included iron barges and other boat remains and a possible wharf, discussed in more detail above.

Eleven other wrecks are also known, as discussed above and listed in Appendix 2. Some are aircraft, but others may be ships and boats lost in the harbour. A geophysical survey by HWTMA (Satchell 2003) identified anomalies that may also be wreck sites and would benefit from further investigation. One wreck, shown in aerial photography (Aerial photo (f), NMR 18705/15; 475060 100095), corresponds to one of the HWTMA anomalies.

Military

The most imposing Iron Age feature in the AONB is Tourner Bury, as discussed above. This univallate ringwork would have dominated the western part of the entrance to Chichester Harbour and may have had some military use, although its precise function is not known. It encloses 2.6 hectares and stands some 4m high with a single original entrance to the west, approached by a hollow way. There may have been two successive ramparts.

Chichester and the Solent area have been suggested as the site of the Roman landing in AD 43, although Richborough in Kent is the more traditional view. There is some evidence of an early Roman military presence at Fishbourne where part of an Augustan sword scabbard was recovered. Two rectangular storage buildings in timber and gravel roads may relate to a Roman military establishment prior to AD 43, perhaps associated with the formation or protection of a client kingdom or with the planned invasion of Britain by Caligula. The construction of roads also suggests Roman military activity.

Bosham has a military connection, since it was from here in 1064 that Harold famously set off on the voyage which ended in his falling into the hands of William of Normandy. Bosham church features on the Bayeux Tapestry.

The fortified brick manor house of Warblington Castle was built by the Countess of Salisbury between 1514 and 1526 on the site of an older, moated manor house. The 16th century building was mostly destroyed during the civil war, and only an octagonal turret of the gate-house survives today, as well as the older moat.

Remains dating to the two world wars and the Cold War demonstrate the military importance of the AONB in the modern period. In WW1, an airfield was located on the Chidham peninsula. An airfield at Thorney Island was completed in 1938. The airfield ceased flying in 1975 and remains a military base today. Thorney's coast was defended by pillboxes, machine gun emplacements, concrete anti-tank blocks, and part of its sea wall was modified to be an anti-tank defence. The churchyard wall of St. Nicholas was pierced for loopholes in 1940, now repaired, and there is a weapons pit surviving on the east side of the island. The west side of Emsworth Channel was also defended by pillboxes, anti-tank blocks, an anti-aircraft battery. Anti-tank blocks were also used in Chidham. A boom was strung across the mouth of the harbour to deter enemy water borne attack, secured to concrete pillars below water.

Birdham Pool was taken over by the Admiralty in WW2 and landing craft were built here. The wreck of one such craft still survives, as does the turntable and slipways for launching these vessels. Another landing craft survives at Itchenor and a Motor Torpedo Boat at the Fleet, Hayling Island. Birdham itself was defended by an anti-tank wall the blocks from which now form the edge of the Marina. Iron sheet pillars, also used as an anti-tank defence, can still be seen at the end of the Chichester Canal. At Apuldram, a military airfield was established towards the end of WW2, in preparation for the invasion of Europe. It was dismantled in 1945.

Dummy airfields and simulated urban lighting were also employed during WW2. A day-and-night dummy aerodrome was situated at West Wittering to fool enemy reconnaissance, with dummy Blenheim aircraft used on the site. At Itchenor urban lighting was simulated to fool enemy bombers.

Many planes crashed in the AONB during WW2, and a list of these forms Appendix 1. Of the eleven wrecks listed by the UK Hydrographic Office, at least two are aircraft. Military remains in the AONB extend into the Cold War stand-off between the Superpowers. The two monuments dating from this era consist of an underground Royal Observer Corps Monitoring Post on Hayling Island, and Thorney Island airfield, as detailed above.

Fishing and associated industries

The exploitation of fish is likely to be one of the oldest industries in the AONB, and may date to the Palaeolithic and certainly to the Mesolithic – a Mesolithic microlith found in Nutbourne creek may have been used for fishing.

In the Neolithic period, a specialised flint assemblage was found at Chidham. The flints may have been used to prepare wooden arrowshafts, spearshafts and possibly osiers for plaited fish traps. Fishing is also likely to have been an important part of the local Iron Age, Roman and medieval economy. Bullrush Pond, near Bosham, may be a medieval fish pond Fishbourne means 'fish stream.' Documentary sources show that fishing and oyster farming were certainly important parts of the post-medieval and modern economies of the AONB.

The normal pattern of fishing in the harbour in the post-medieval period seems to have been to fish wet fish in the summer, and shellfish in the winter. Plaice, flounder, sole, whiting and whiting-pout, mackerel and herring were all fished in the harbour in the 19th century, with bass, skate or conger eel and occasionally cod outside the harbour. Trout and eels were fished from the streams. The oyster was an important catch (Reger 1996). These were dredged up and stored in the wet-wells of fishing smacks or in tubs of salt water. The oysters were then deposited in holding ponds, or coves, where they could be lifted for sale when required. The *Terror,* currently being restored by Chichester Harbour Conservancy as part of the 'Rhythms of the Tide' project, carried oysters between lays at Hayling Island. By the early 19th century, the local oyster beds had been fished out, but the trade was rejuvenated by the discovery of new beds off Shoreham and the French coast. Other molluscs, such as cockles, mussels and winkles, were also exploited. Scallops could be dredged from the Channel and crabs and lobsters trapped in pots moored offshore.

However, the oyster industry in the harbour suffered a crippling blow in 1902 when a new sewer was built which discharged near the Emsworth beds. At a banquet at Southampton and another at Winchester, several guests fell ill and the Dean of Winchester died. The sale of oysters from the harbour was banned, and the ban on Emsworth oysters was only lifted in 1914. The traditional oyster trade finally faltered to a stop in about 1939.

Oyster beds can still be seen in a number of places in the AONB. Rectangular features in the bay at the head of Prinsted Channel may be oyster beds, and over 50 rectangular oyster beds at the head of the Emsworth Channel and over 70 oyster beds along the west side of Gutner Point are shown on the 1st edition OS map.

There were two types of fishing in the harbour – inshore and offshore fishing – both of which required particular types of craft. Inshore fishing boats were rarely away from home for more than a day at a time whereas offshore fishing boats spent up to a month out of port.

By the end of the 19th century, the standard inshore boat at Bosham was the open Bosham punt with a single mast and a dipping lugsail. In contrast, jerkies were the standard Emsworth inshore boat. These were small craft, rather heavier than the Bosham punt with a standing lug and foresail on a single mast.

Smacks could fish offshore and were also used for dredging oysters. These varied in size from cutters of some 25 tons to ketches of over 50 tons. Cutters took six men, the larger ketches eight men.

The steam auxiliary ketch *Echo* had eleven men, including two engineers. Bosham had fewer smacks than at Emsworth; they included the *William and George*, and the 22 ton *Caroline.* At Emsworth, the smacks included the 55 ton ketch *Evolution,* 55 ton ketch *Thistle*, the small 22 ton cutters the *Nautilus*, *Cymba* and *Aura*, the *Sybil* and *Ostrea* of 35 tons each, the 69 ton ketch *Nonpareil*, the 41 ton ketch *Una* and the *Sylvia* of 35 tons. These Emsworth smacks were built in J.D. Foster's yard. He had been an oyster merchant who set up his own shipyard in the mid 1880s. His business was based in the disused malthouse on Hendy's Quay, and he also set up a saw mill. His craft were much admired, with their raking clipper bows, fine lines and overhanging counters. One of his most famous craft was the 52 ton *Echo*. This 112ft long steam auxiliary ketch was thought to be the largest fishing vessel to have sailed out of an English port.

The oyster carrier *Terror* is thought to have been built in Emsworth in the second half of the 19th century. It is currently being restored by the Chichester Harbour Conservancy as part of the 'Rhythms of the Tide' project.

In terms of surviving archaeological evidence, at Dell Quay a large wooden fishing-type vessel (CHP 013) was identified by HWTMA in their survey. The craft was 19.2m long by 5.3m wide, with a hole visible for a propeller shaft.

Ship and boat building

Shipyards concentrated around the harbour at Itchenor, Bosham and Emsworth for the purpose of building and maintaining little ships for coastal trade and the fishing industry all around the coast.

The earliest references to ship building date to the late 17th century, when an inventory of the belongings of John Chatfield from Itchenor in 1694 included a reference to 'shipwright work.' Although the harbour had been rejected as not suitable for a naval establishment by the Navy Board in 1698, a number of small to medium-sized warships were built at Itchenor in the 18th and early 19th centuries. The ships were built by Vernon and Chitty although the location of their Itchenor yard is not known. The vessels included the 272 ton *Hornet*, a sloop with 24 guns, in 1745; the 509-ton frigate *Arundel*, with 24 guns, the following year; the 823 ton frigate *Penzance* with 44 guns, launched in 1747; and the 24 gun *Hind* of 510 tons, in 1749. The largest ship built in the harbour was the *Chichester* at 902 tons, launched in 1785. The construction of naval ships at Itchenor continued into the 19th century – although these were significantly smaller than those built in the previous century. They included in 1806 the 183-ton gun-brig *Richmond* and the brig-sloop *Pelorus* of 385 tons two years later. The *Transit* was launched in 1800. This 200 ton and 101ft long vessel was sent to trade in the Mediterranean and was lost there in 1810. She was revolutionary in her hull and rig, anticipating the clipper design later in the century.

The Apps family dominated shipbuilding at Bosham in the 19th century. William Apps was the first to occupy the Quay Meadow Shipyard in the late 18th – early 19th century. The yard consisted of a slipway and a shed where timber was prepared and boats built, a stone's throw from the church. As was common, the purpose of such small local yards was to service and construct vessels for the owner as well as to build vessels for others. In 1871, only four men and two boys were employed at the yard. Thomas Apps owned the 25-ton sloop *Prosperous* in 1837 and William Apps owned a half share in each of the 25-ton ketch *William and George*, an oyster smack, and the 25-tone barge *Sally*, in 1842. The Apps yard built the last sailing coaster at Bosham, the 76-ton *Good Hope*, launched in 1902.

A merchant Thomas Smart was also running a small shipyard at Bosham in 1871, and like the Apps yard, also employed four men and two boys. He owned – and possibly built – the *Busy Bee*, that transported coal from Sunderland. He also built the 84-ton *Lady of the Lake*, also used for coal transport, and the *Dolly Varden*. When Thomas Smart died in 1894, his cousin Abraham Apps – Thomas's younger brother – ran the yard. After Abraham died in 1927, the yard became known as Scovell's yard.

The 1st edition OS map shows a 'Shipbuilding Yard' at Bosham at 480350 103860. The old Mud Wall sea wall ran from the yard to Chidham, and was used as route across Bosham Channel. A second shipbuilding yard at Bosham was located at 480755 103880. A shipbuilding yard is also marked near Hendy's Quay in Emsworth at 475230 105510, within a cluster of associated industries, including timber yards, a saw mill and a smithy. The oyster carrier *Terror,* currently undergoing restoration, is thought to have been built in Emsworth in the second half of the 19th century.

On the 1839 Tithe map for West Itchenor, field 3 centred on 479845 101372, is described as 'Sawpit meadow.' This area, located at the north end of The Street in the village, later developed into a shipyard. The sawpit may have marked the beginning of this.

Brick and tile making

Brick and tile making was an important industry for the AONB that dates from the Roman period. Brick and tile was used in the Roman period for the villas at Langstone and Warblington, and at Fishbourne Roman Palace.

The bricks and tiles for Fishbourne may have been manufactured locally at Copperas Point near Dell Quay, where the rare find of a Roman tilery was excavated in the late 1980s. The date for the tilery could not be precisely established, but some evidence suggests it could have been before AD 75. This is discussed in more detail above.

In the post medieval period brick and tile making was a major industry in Sussex, although detailed fieldwork is still in its infancy. The county's bricks were valued for their warm red colour. Clamp kilns for brick manufacture were a common sight in the16th and 17th centuries but by the 18th century kilns had become more permanent.

A 1759 lease notes a brick kiln and tile house at Bosham Hoe, and an estate survey of 1785 lists 'Brick Kiln Marsh' at Chidham. A brick kiln on the foreshore at West Wittering also probably dates to the 18th century. There was a brickworks at Emsworth that exploited the local red clay. The brickfield south of Colner Farm, Bosham, was in existence in 1896, but closed *c* 1918. A brickworks and pottery at the junction of the Portsmouth road and Chequer Lane was in existence by 1867, but also closed during WWI. A brickfield at Maybush on the Chidham boundary fired bricks in clamp kilns in the mid 20th century.

There is also evidence of clay extraction in the AONB. On Hayling Island, an 'Old Clay Pit' is marked at *c* 472070 103790 on the 1st edition OS.

Salt working

Salt working was an important industry in the AONB, dating from at least the Iron Age. The location of salt workings on the coast had the obvious advantage of being near brackish water, as well as being able to use the channels for transport. The harbour was an ideal area for salt production, being relatively sheltered with low-level marsh that could easily be enclosed. In the Iron Age and Roman periods, salt water was collected in pits at high tide and transferred to crude ceramic vessels where the water dried and the salt could be collected. Later, south coast salt production was by the boiling of seawater, concentrated by sun and wind, in lead or iron pans over coal fires. South coast saltmaking seems to have declined in the 19th century due to increased competition from Cheshire and salt imported from the Continent (Greenwood 2000). The storm of 1842 also did much damage to the industry.

The Tourner Bury excavators suggested there might be a connection between the hillfort and Iron Age salt working, although such a connection remains unproven beyond the fact that the salt workings in the area produce pottery of similar date to that found at that site. The Iron Age was a major period of development for the hillforts on the Downland chalk.

Many of the known Iron Age salt workings in the AONB are concentrated on Chidham's west coast and at the head of Thorney Channel. Evidence included a small Early Iron Age pit that may have been an evaporation pan for salt production, together with finds of calcinated flint and Iron Age pottery. At Thornham Boat Yard, Iron Age occupation debris was overlain by a large 1st century Roman saltern. The headland between Bosham and Bosham Hoe yielded two further Iron Age salt working sites, where fired clay fragments were found, although these were probably not the industrial debris from ceramics used in the process (briquetage). Salt working continued into the Roman period, with briquetage recovered from one site in Chidham where a number of recut ditches and pits were also recorded. The salt working here may have had a long history, perhaps only ceasing in the 2nd century AD.

The Menghams saltern in South Hayling was recorded in the Domesday survey as paying 6/8d. The area is still known today as 'Mengham Salterns.' The salterns only went out of use in the late 19th century. At the head of Fishbourne Channel, "Salt mylls or Sea Mylls" are first mentioned in 1582 and a medieval salt works may also have been present at Stanbury Point on Thorney.

In the post medieval period, salt working thrived. In 1717 James Ayles took a lease of a house for boiling salt on Hayling Island and also leased part of New Wall marsh in Apuldram and erected a saltworks on this (Greenwood 2000). At Apuldram, 'Salterns Copse', 'Salterns Lock' and a house 'Salterns' are marked on the 1st edition OS map. On Hayling Island The Great Salterns and The Little Salterns in the north, and Yenmans and Eastoke salterns in the south were all centres of salt making. However, the Apuldram saltworks was unoccupied by the 1840s, and the Hayling salterns also went out of use in the late 19th century.

Settlement history

There is no positive evidence of settlement in the prehistoric period in the AONB. In the Neolithic, for example, the area was probably used for short-term visits for occasional hunting and exploitation of flint resources. The Harbour was an important part of the Neolithic economy even though it was not settled or occupied, it was peripheral but not marginal to the occupied areas.

In contrast, there is important evidence for settlement in the Roman period. As described above, the south part of the important Fishbourne Roman Palace falls within the AONB.

The construction of the palaces is likely to have acted as a catalyst for other developments in the harbour area. The Roman tilery at at Copperas Point, near Dell Quay, may well have supplied the standard *imbrex* and *tegulae* roof tiles for the palace. This great civil engineering task may well have used local labour as well as the foreign experts, and this is likely to have increased settlements in the immediate area. Two other villas are known in or near the AONB and Sussex has a relatively large number of villas that are thought to have been at the centre of farm estates, and two phases of aisled buildings were uncovered at Fishbourne Creek.

There is likely to have been a strong element of continuity of settlement with the preceding Iron Age. The poorer peasant farms and villages are fairly evenly scattered over the Downs and the coastal plain, although the villas tend to be established where the soil was more productive, including the coastal plain. There has been relatively little detailed study of this aspect of the Roman countryside, especially land-use and settlement patterns, field systems, methods of drainage, the crops and domesticated animals and farm tools and buildings. The AONB offers a good opportunity to compare and contrast the relationship of the palace to the villas and the villas to wider Roman rural settlement.

Place-name evidence, detailed below, suggests that many of the settlements were in existence in the Early Medieval period. Domesday book – compiled at the arbitrary ‘end’ of this period – gives a snapshot of the settlements in the AONB in the late 11th century and gives some indication of their productivity and by implication their relative importance. Domesday suggests that the settlements in the north of the AONB yielded the most taxable revenue, in contrast to settlements in the south that were less productive, such as Itchenor which only ‘answered for 1 hide.’

Two mills ‘at 40s’ are recorded in Domesday for Fishbourne. There was ‘land for 6 ploughs,’ and ‘27 acres’ of meadow. The value of Fishbourne seems to have fallen dramatically when the Norman tenant acquired the manor falling to 50s from £6 before the Conquest. However, the value had recovered by the time of Domesday to £7.

Nutbourne answered for six hides both before the Conquest and at the time of Domesday. There was land for six ploughs, of which one was farmed by the under-tenant Robert himself. Twenty villagers and four cottagers were recorded with 7 ploughs. Seven acres of meadow were recorded, ‘woodland at 12 pigs’ and ‘2 mills at 25s.’ The value of the manor before 1066 was £7, and when acquired by the Norman tenant £6.

The manor of Thorney was part of the Chapelry of Bosham, and Domesday records that in 1086 ‘Mauger holds of the land of this church 12 hides as one manor; it is called Tornei and pays geld for 8 hides.’ Thirty two villagers with 8 ploughs are recorded.

Warblington belonged to the manor of Westbourne. The decrease in tax revenue from '12 hides' before 1066 to '4 hides' by the time of Domesday suggests a reduction in productivity. Two churches and a mill 'at 10s' are recorded. Part of this area is suspected to be a deserted medieval settlement in this area, although its precise location is not known.

Only the east coast of Hayling Island falls within the AONB. However, at the time of Domesday, part of Hayling Island was held by the king. In this part, there was 'land for 1 ½ ploughs', and 1 ½ acres of meadow. One villager and eight smallholders were recorded. The value of Hayling Island had dipped from 40s before 1066 to 20s when the tenant acquired the manor, but had recovered to 70s at the time the Domesday survey was made. The other part of Hayling Island was leased by monks from the Bishopric of Winchester, with 'land for 2 ploughs.' There was one acre of meadow and 'woodland at 1 pig.' Its taxable value had decreased from 100s before 1066 to £4 10s by the time of the survey.

In the south of the AONB, Domesday book records that Birdham 'answered for 3 ½ hides,' and that there was land to support five ploughs, of which two were ploughed by the under-tenant William himself. '5 villagers and 8 smallholders with 3 ploughs' are also recorded. There was also a mill 'at 20s,' two fisheries, three acres of meadow, woodland and grazing for five pigs. The total value of before 1066 was 40s, when the Norman tenant acquired the manor 30s, and at the time of the Domesday survey in 1086 65s. A deserted medieval village is also suspected in the Birdham area, although no convincing evidence has yet been identified.

Itchenor 'answered for 1 hide' and there was land for a single plough that was farmed by the under-tenant Warin. Three villagers and three smallholders were recorded 'with 1 plough.' One acre of meadow was recorded. The value before 1066 was recorded as 20s, when the Norman tenant acquired the manor 15s, and in 1086 22s.

Place-names

Place-names with Old English elements are found throughout Sussex, and the AONB is no exception. The interpretation of place-names is a specialist task that contains many pitfalls for the inexpert. A place may be named by its owner, but the name used by the neighbours of the place is the one that is more likely to survive. We only have a partial picture of the names of settlements because the place-names we now recognise probably represent only a fraction of the total number formed during the period in which Old English was spoken. Similarly, we cannot be sure how representative are those which have survived.

It used to be thought that there was a fairly straightforward succession of place-names, with '*ingas*' names – like Goring, Worthing, Lancing, and Angmering – being the earliest, followed by later settlements with '*ham*' names, forest clearings '*leys*,' farmsteads '*tons*' and islands '*eys*.' This model has largely been discredited, although such thinking still persists (eg Glover 1997). Philological investigations and studies of the relationship between the geographical distribution of place-names and Early Saxon archaeological sites have suggested a more complex picture. Place-names with '*ham*' are now thought to pre-date those with the '*ingas*' formation, although there has to be an element of caution since '*ham*' names do not always correspond with places where Early Saxon settlement is known from archaeological remains. It has also been observed that names that describe the topography of a place or names that contain a reference to nature may form a group of potentially early names. The reasoning is that these straightforward descriptive names may precede personal names associated with the ownership of a place that only becomes established after a prolonged period of ownership (Welch 1983a). By this reasoning, the place-name of Thorney – an '*ey*' name – may be one of the earliest in the AONB. Similarly, place-names within the AONB that contain a personal name element – such as Bosham, Hayling, Itchenor and perhaps Chidham and West Wittering – are unlikely to represent the earliest settlement phase.

Names in '*hām*' also need to be distinguished from those in '*hamm*', although both can give rise to modern names ending in –ham. '*Hām*' means 'a village, a village community, an estate, a manor, a farmstead.' '*Hamm*' means 'an enclosure, a meadow, a water meadow' or 'a meadow especially a flat low-lying meadow on a stream' and 'an enclosed plot, a close' (Welsh 1983a). Most scholars agree that Bosham is probably a '*hamm*' name, although such names are relatively rare in the Coastal Plain – the majority being found in the western Rother valley and the Weald. Chidham and Birdham may also be '*hamm*' names (Welsh 1983a *fig* 10.5).

As indicated above, an early name for the mouth of Chichester Harbour is recorded in one of the Selsey charters as 'Hormouth' (this still persisted into the late 17th century, corrupted to 'Ourmouth' in Morden's 1695 map of Chichester). Hormouth may derive from *horh mutha* meaning 'dirty estuary.' Even in modern times, the harbour is very silt-laden and there are historic references to mariners requiring local pilots to guide them through the shifting sand banks. The charter also refers to *wealesfleot*, probably meaning 'Briton's creek' that seems to be a reference to Chichester Channel. This may be a link in the minds of the Saxons between the thinly-populated or abandoned Roman walled city of Chichester that was not reoccupied until the 10th century and remaining Celtic-speakers (John Mills pers comm.).

Place-names that contain Old English elements that derive from Latin have also been interpreted as evidence of contact between Saxon and native Briton.

Although such place-names in Sussex are relatively few compared to neighbouring counties, Walton in Bosham parish is one of these, surviving in the name of Walton Farm. The scarcity of such place-names suggests that Old English had become the dominant language of the region in a very short time.

Most of the names of villages in the AONB can be traced back through historic records to at least the 12th-13th centuries, and some as far back as the 7th-8th centuries. The derivation of place names in the AONB is detailed below (Mawer and Stenton 1929-30; Glover 1997).

Appledram, Apeldreham in 1121-1321, Appeldoreham in 1248, Apeltreham in 1296, Apultreham in 1428, Appuldram in 1440. The name may relate to the deep loam with a clay or brickearth subsoil that is reputedly good apple-growing land.

Birdham, or 'young bird settlement,' is derived from the Old English *bridd ham.* In AD 683 it was listed as Bridham; Bridham in 1086; and Byrdham alias Bridham in 1492. There may have been a rookery or nesting place close to the settlement.

Bosham is derived from the Old English *Bosan hamm* – Bosa's water meadow. In AD 750 it was Bosanhamm and Boseham in 1086.

Chidham is derived from the Old English *ceode ham*; Chedeham in 1193, Chideham in 1223; there is no known significant element which would explain the first element in this name. It looks as if the vowel must have been *eo*, but no personal name is known which would satisfy this requirement.

Dell Quay means deep hollow, *dell* in Old English. It was la Delle in 1280, Dell Key in 1671. The 'hollow' may refer to the eastern arm of Chichester channel on which Dell Quay stands.

Fishbourne means fish stream, Old English *fisc burna.* Recorded as Fisborne in 1086, Fisseburne in 1180 and Fisshebourne in 1302.

Hayling may have been derived from a personal name – 'Haegel's ham'.

(West) Itchenor – Icca's shore, from the Old English *Iccan ora*. Iccannore in AD 683, Icenore in 1086, Ichenore in 1187, and Westichenore in 1243.

Nutbourne, or 'nut tree stream.' Notburn in 1277, Nutbourn in 1327, Noburn in 1180, Neoburna in 1179, Nuthburne in 1288.

Prinsted, or place of pears, from the Old English *peren stede*, Pernestede in 1253 and Prynsted in 1587.

Thorney, or Thorn island, from the Old English *þorn, eg* þorneg in 1052, Tornei in 1086 and Westthorneye in 1291.

(West) Wittering may be derived from a personal name, for example the heroic name Witterglyd. The name means 'Wither's swine pasture.'