

## **Avon Water in Hampshire**

### **Synopsis**

The document describes a virtual journey along the Avon Water in Hampshire beginning at the source; the perspective is as much historical as descriptive of the current scene. The river is small by any measure, so some features of most of the accounts are absent here, but the format is the same. As regards watermills, Alastair Robertson's Appendix contains sketch maps and tables identifying, and locating commercial watermills\* and farm mills\* in the catchment and wherever possible specifying their functions.

*\* a commercial watermill is paid by customers to process raw materials like grain or wool, a farm mill is a machine located on a farm, which operates at the behest of the farmer, normally without money changing hands.*

For most rivers, an aid to document navigation is supplied but that seems un-necessary in this case, though if it helps, the Appendix begins on page 8, and is followed by the short bibliography on page 10.

## Avon Water in Hampshire

The Avon Water is the shortest Avon river, with a length of 14½km, and it flows wholly in the county of Hampshire. The source is at OS Grid Point SU 202 018, at a height of just less than 50m; the course is shown in a sketch map in Alastair Robertson's Appendix, which locates watermills operating after 1750. The stream rises south of the village of Burley, 5½km south-east of Ringwood, at the entertainingly named Slap Bottom, towards the western edge of the New Forest. I gave the following very brief description of the area, in the account of the Hampshire River Avon, which skirts its western edge. The New Forest National Park was designated in 2005, covering 56600ha; it is bounded to the north by Salisbury Plain, the east by the River Test, the west by the Hampshire River Avon and to the south by the sea, the English Channel. The chalk underlay of the downs has not disappeared, but lies below sedimentary layers of sand, clay, and silt hardened into rock; the soil is poor so farming was never a great option. This must also explain the fact that Avon Water and other New Forest rivers do not appear on lists of English chalk streams. The area was once predominantly covered by deciduous woodland, but clearance has gone on since prehistoric times, so that now the proportions of old woodland, heathland and grassland, and new plantations, are roughly in the ratios 2: 2: 1, though grain crops are also grown in a few areas.

Most of the area was designated as a forest by King William I (the Conqueror) in 1079, allegedly after evicting inhabitants of 36 parishes and closing their churches; game, mainly deer, & boar, was reserved for hunting by royal parties, with draconian penalties for anyone else killing these animals. Such local people as remained, the Commoners, gained rights such as grazing, collecting firewood, and pannage (feeding



pigs on acorns). It is fairly well known that King William's 3<sup>rd</sup> son, King William Rufus perished in the forest in 1100, shot by an arrow in dubious circumstances, but his 2<sup>nd</sup> son, Richard, also died in some kind of accident there, in c1070, as did a grandson at a later date. Many at the time, saw these deaths as punishment for desecration of church property, though hunting was a dangerous pursuit with quarry like wild boar, wolves, and stags, with hunters most often dismounting to kill with a sword or spear; those taking part saw it as training and practice for war. Royal hunting ceased by the 17<sup>th</sup> century, but land in the forest remained largely unenclosed, and the rights of the Commoners were confirmed by acts of Parliament, most recently in 1877. The photograph is hopefully representative of the heathland.

About 10 years ago, I spent a few summer days in the New Forest, hoping to explore, by following a few of the trails, and visiting some of the villages. Instead I experienced nothing but dank misty weather, in which visibility did not exceed a hundred metres. Apart from seeing a few bedraggled ponies and a lot of dripping trees, I gained little impression of the landscape, and was rarely tempted to leave my car, except to visit a few sheltered historic sites. In consequence my directly acquired knowledge of the Avon Water has thereby been reduced to a very limited number of locations along its length, so most of this virtual journey is based on a desk-top study.

However, I think it worth presenting the account because the stream seems to be almost unknown beyond its locality, other than by visitors who happen upon it, while holidaymaking in the New Forest.

The village of Burley, beside which the Avon Water rises, may be several hundred years old but there are few signs of that, for all that it looks like a pleasant place to live. It is spread widely, with trees everywhere, so that the varied houses look in places like an afterthought, squeezed in, where spaces could be found. It has a population of just over a thousand, a few shops, including some of a touristy nature, hostelryes, a Victorian church and a school. There was a watermill, remembered only by street



names, and a stream named Mill Lawn Brook, which is in the Lymington River catchment. The manor house, long held directly of Kings of England by a family who gave their name to the village, was pulled down in the 19<sup>th</sup> century, and replaced by the rather nice pastiche of an Elizabethan building shown; it is now a hotel. There are Bronze Age barrows on the hills nearby, and to the west is a univalliate Iron Age hillfort, camouflaged by trees. There is a fund of tales linked to Burley, relating to witchcraft, (there is a festival of witches each November), smuggling, and ghosts of hanged highwaymen, while the village has its own unusual dragon legend, in which the knight, who killed the fabled beast, was overcome by remorse and died on a nearby hilltop.

The source is very close to a disused section of what was the Southampton & Dorchester line, which opened in 1847, after many disputes between the major railway companies operating in the area, Great Western Railway (GWR), and London & South Western Railway (L&SWR). The route through the New Forest was convoluted, because landowners and other interested parties were able to have the plan altered,



and when opened, the line was nicknamed 'Castleman's Corkscrew' after its main advocate. This militated against ideas to make it part of a longer distance route between London & Exeter; when L&SWR railway did open such a route, only the first part of the Southampton & Dorchester line was utilised, leaving the section through the New Forest as a local line only. Inevitably it was shut down in the 1960s, and the track was lifted. Proposals for re-opening have been put forward, and there seems to be a reasonable chance that they will come to fruition. Avon Water is seen in the photograph, a short distance from its source, flowing east, (left to right in the frame). A short distance downstream, the stream enters an area of plantations of mature trees; Wilverley on the left bank and Holmsley on the right bank are the first, to be encountered.

The plantations are called inclosures and result from a 1698 law which was passed to allow an area of 6000 acres (2400ha), in the New Forest to be planted with trees to provide wood for new Royal Navy ships. The young trees had to be protected from sheep and deer, so fencing of the inclosures was approved by the law, otherwise forest laws would have prevented this. When the trees were mature, the fencing became unnecessary and could be removed, but the law had been so drafted, that whenever an inclosure was unfenced, a corresponding area could be set aside for growing trees. So, it seemed that more and more trees suitable for naval use and commercial exploitation, would be grown, and this happened, though not perhaps to the extent that might have been feared. Finally in 1877, a law was passed to set a limit to the plantation area at c18000 acres (7200ha), the then-area of inclosures. Of course, by that time, iron and steel were replacing wood in Royal Navy ships, reducing the need to grow and cut down trees. Since 1877, there has been a small amount of additional tree planting, but it is tightly controlled. (For more information on this and other New Forest features, there is an excellent website, <http://www.newforestexplorersguide.co.uk/>).

The Avon Water swings slowly southwards as it passes between the inclosures, parting company with the earthworks remaining from the Southampton and Dorchester Railway, and emerging into more open country, near the village of Sway, on its left bank. The photograph taken there, by Mr. Smith, shows the growth of the stream, and fairly scrubby trees which line its banks. Sway, meaning noisy stream, presumably referring to the Avon Water, is an old settlement with Domesday Book mentions, but nothing of great age is visible now. There are streets of relatively new houses set amongst trees, a few shops and other amenities; trains stop at a station on the old London & South Western Line. However there is an unusual, if not very old building in the village. Sway Tower, in the southern outskirts, is 65m high, and when built in c1880 was the first building in Britain made of non-reinforced concrete and is alleged to be the tallest structure in the world made of that material. The builder was a wealthy



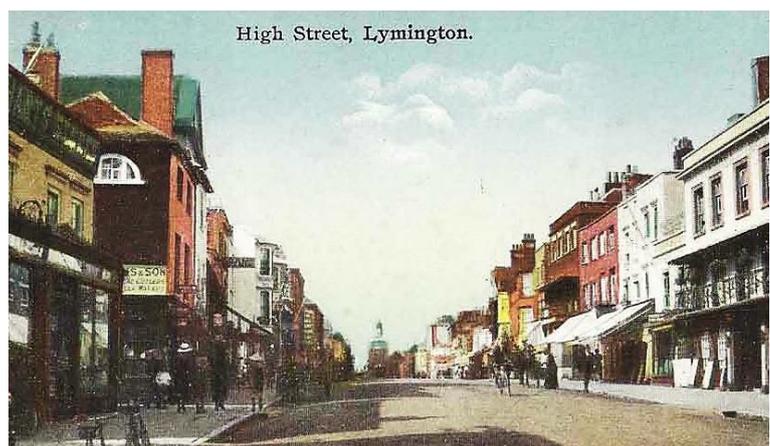
local landowner Andrew Thomas Turton Peterson, who wanted to prove that concrete was a viable building material and create a centrepiece for his estate. He aimed also to provide work for unemployed locals; the build employed 40 men. Peterson was born in Yorkshire in 1813 and died in London in 2006. In the intervening 93 years he ran away to sea, became a lawyer, went to India, made a fortune, married, and retired to Hampshire.

He was known as an eccentric, according to local legend he consulted a medium and made contact with Sir Christopher Wren, who encouraged him to build the folly. The Grade II Listed building has a total of 14 storeys, all of which are reached via an enclosed spiral staircase (330 steps) attached to the outside of the tower, and there is a furnished house inside. On a clear day, the view from the top is said to be spectacular, but few people can have enjoyed it given the climb, and the fact that the building is private.

Flexford Mill, south of Sway, was recorded in the Domesday Book in 1086, and a successor is shown on 19<sup>th</sup> century maps; it was fed by a mill pond taking the whole flow of the Avon Water, with a divert for when the mill was not operating. The building survives but I know no more. There was another Domesday watermill a short distance downstream, Gordleston Mill; a successor built in the 18<sup>th</sup> century still straddles the Avon Water, beside a divert, but it is now a hotel. The stream next passes between 2 townships; the one on the right bank is Hordle with its appended village of Everton, but both largely comprise housing built since the 2<sup>nd</sup> World War, so do not require attention in a historical journey.

The western outskirts of Lymington reach the left bank, but the town grew up beside the Lymington River, so it is doubtful if the town should feature in an account of the Avon Water. However, it seems right to look briefly at Lymington, because of proximity, and because it is the gateway to the New Forest area, through which the Avon Water flows. There was a settlement in the Saxon era, and then on the right bank of the Lymington River after the Norman conquest, but the town, as it is known now, began to take shape in c1200, when it received a burgh charter allowing weekly markets and annual fairs to be held. By then the town was a trading port, exporting cloth and importing wine, and supplying ships and mariners when England was at war. It was burnt 3 times by French raiders in 1338, 1370, and 1545, but recovered. A major industry in the medieval period was salt panning, in which sea water was fed into pits to allow evaporation to concentrate the brine, (perhaps there were dry, sunny periods in the New Forest then), and the remaining water was boiled off in heated vats. This industry survived until the 19<sup>th</sup> century, when competition from mined rock salt killed it off.

Shipbuilding became important in the 18<sup>th</sup> century, a rope walk and a timber yard, as well as the launching slipway on the river speak for that. In the same period, the present townscape developed; the old postcard shows the church at the end of the broad main street, on which markets are still held. In narrow streets behind, there are more shops, some with Georgian fronts. The railway arrived in 1858, a branch line, 8½km long, from Brockenhurst, connecting



to the London & South Western Railway main line. There are still 2 stations in Lymington, one near the town centre, the other at a pier on the river, where ferries leave for the Isle of Wight. The line had to be lengthened by just less than a kilometre not long after it opened, as silting meant that ships had to berth further down-river. As often happened, Lymington did not benefit from the rail link in its early years, as businesses in the town closed, because of the increased competition from goods brought in by trains, but longer term, the increased

flow of tourists, some to catch the ferry to Yarmouth on the Isle of Wight, and others to explore the New Forest, has brought prosperity to the town and employment for the 15000 inhabitants. I visited on a dank wet day, to find that I could not cross to the Isle of Wight, because I had not booked in advance; it was a silly mistake, given that in spite of appearances, it was high summer. So, in a bad mood, I wandered around in the rain, for a couple of hours, and did not much appreciate my surroundings, but I remember that the streets were crowded, and the shops busy. I was happy enough to leave then, and this is what I must do now to get back to the Avon Water.

There is a house called Wainsford Mill, west of Lymington, situated by the river and shown on mid-19<sup>th</sup> century maps, though not on those depicting the area, later in that century, which suggests a watermill had ceased operation by the later date. This makes it unlikely that much of the mill survives in the house. Efford Mill is a little further downstream; it is now a listed dwelling dating to the 18<sup>th</sup> century. For most



of the rest of its course, the small river flows through farmed fields, at a distance from roads, and divides into strands; on the map some appear artificial, and may be survivals from floating meadows. They are described in the account of the Hampshire River Avon, and were a method of channelling water onto grassland to enable growth early in the year, and to increase the yield of hay. The aerial view looks north, with the Avon Water winding into a large pool behind the sea-wall built in the 1970s. The outflow is through a sluice gate; the flooded area on the left of the frame is part of Lymington and Keyhaven Marshes nature reserve. The inflow is from one of the aforementioned strands of the river, and the outflow is controlled to maintain the wet area. The reserve extends over 738ha, and a walk along the sea-wall offers views across the mudflats, where a wealth of different bird species come to feed. Large numbers of Brent geese seek refuge here in the winter, along with dunlin, black-tailed godwit and grey plover, and many other species. The salty mud creates a habitat for plants such as yellow-horned poppy, sea campion and sea aster, and healthy fish populations attract sandwich and little terns, cormorants, and inevitably gulls. Birds of prey include marsh harriers, peregrine falcons, and merlins.

Keyhaven is a hamlet on the right bank of the estuary of the Avon Water, beyond the sluice gate where there is a large marina, albeit for small boats only, because the bay into which the estuary opens is shallow with barely submerged sand banks, hemmed in on the south by a long shingle spit. The bay is mapped as a few channels and pools, Hawker's Lake, Keyhaven Lake, and Mount Lake; presumably these appear as separate bodies of water when the tide is out, but it was high tide during my visit. From Keyhaven a small ferry takes passengers across the bay to Hurst Castle, near the end of the shingle spit. I went there after my above-mentioned failure to get to the Isle of Wight. The rain had more or less ceased to fall, but it was still misty and overcast, so the much praised view during the 15 minute ferry crossing, and from the castle itself, was not for me; I saw only water, and the Isle of Wight was hardly more than a shadow. Hurst Castle, is a 16<sup>th</sup> century Henrician fort, one of those built, when King Henry VIII, rather carelessly, found himself at war with the two greatest powers in Europe of the time, namely France, and the domains of Emperor Charles V including Spain, and present-day Germany, Austria, Netherlands, Belgium and most of Italy. With good reason King Henry feared invasion, and

built forts along the southern coasts of England, though the war soon petered out and peace was made shortly afterwards.

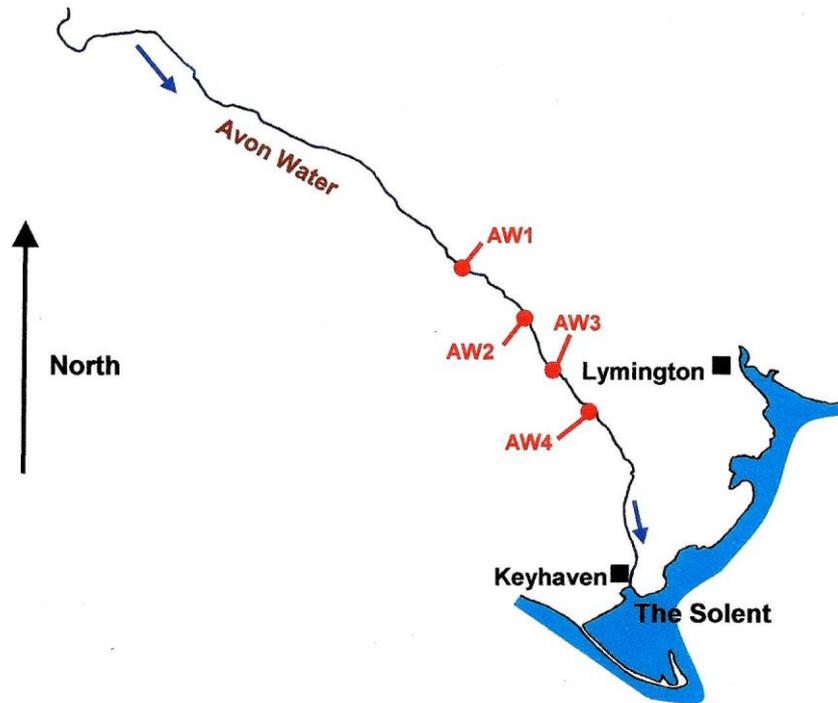


The Henrician coastal fort was completed in 1544, and carried 20 guns; it is left of the lower middle in the photograph above, which was taken from the south-east. It was a stronghold of Parliament, throughout the Civil War, and held King Charles I in December 1648, before he was taken on his final journey to London for trial and execution. The fort came into use again in the 1790s when war broke out with France, and at that time received additional batteries mounted in emplacements on each side of the original castle. In the mid-19<sup>th</sup> century the fort was remodelled and ranges were again built on each side of the original castle to carry more guns, leaving the configuration of today. The 16<sup>th</sup> century castle was opened to the public in the 1930s, and the whole complex followed suit in the 1960s. The original castle, is dwarfed by the extensions, extending over more than 300m, but comprised a central 12-sided keep of diameter, 20m, and 12m high, on a gun-platform which has a trefoil appearance given to it by 3 large, semi-circular bastions. There have been many alterations, over the 4 centuries since it was built, but its form and many features are of the 16<sup>th</sup> century. With all its additions, this is probably the most interesting Henrician coastal fort, of a number I have visited, and I was pleased that I had been able to spend a couple of hours there.

That concludes the historical journey along the Avon Water; its water reaches the sea by flowing east between Hurst Point, and the Hampshire coast. The flow rate is not metered, but I doubt if it exceeds 10000 gallons per minute in normal conditions, less than 5% of the rate at which water leaves its neighbour, the Hampshire River Avon. Along its 14½ km course there appear to be 4 sites of watermills, which are shown in the Appendix which follows, but there are no crossing bridges of note; it skirts towns and villages rather than disclosing its presence within them. It passes from a fairly typical New Forest landscape, through tree plantations, inclosures, to farmed surroundings and finally marshes at its mouth. Hurst Castle is by far the most interesting old building along its length. Perhaps I would have found more to say, and been more enthusiastic, if the weather had lived up to summer expectations during my exploratory visit. Unfortunately, I have not been able to return.

## Appendix

**Table 1: Water Mills on the Avon Water**



### Avon Water

Code	Mill	Mill Type
AW1	Flexford Mill	Corn
AW2	Gordleton Mill	Corn
AW3	Wainsford Mill	Unknown
AW4	Efford Mill	Corn

No commercial mills were found on any tributaries of the Avon Water.

## Threshing Mills

The locations of possible water-powered threshing mills in the Avon Water catchment were identified from first edition, six inches to the mile Ordnance Survey maps (6 inch OS maps) for Hampshire. The surveys for these maps were undertaken between 1867 and 1871. Almost all of the relevant first edition 25 inch to the mile OS maps were not available on the nls site so second edition maps, surveyed in the 1890s, were used from time to time, to help clarify whether or not a threshing mill might have been present.

The first threshing mills were introduced in the late 18<sup>th</sup> century and they spread across the UK during the first 30 years of 19<sup>th</sup> century. The map surveys were undertaken several decades after most of threshing mills were installed and after the introduction of steam-powered portable machines which rapidly superseded water-powered threshing from the 1860s onwards, and for obvious reasons they were not shown on maps. However,

water-powered threshing mills required sources of water including ponds and mill lades. These are long lasting features and, in many instances, but not all, they remain detectable on maps surveyed many years after the threshing mill has fallen out of use.

Possible threshing mills in the Avon Water catchment were therefore identified from the presence of mill lades/streams, ponds and possible mill buildings marked on the OS maps. The presence of mill lades, dams or ponds is a strong indicator of the presence of a water mill on a farm at some time. Only those farms where the buildings were lower than the ponds were included in the list of threshing mills below. Threshing mills were by far the most common type of farm mill and it has therefore been assumed that there were threshing mills at these farms.

Thus sites where water-powered farm mills operated at some time after c1790, are tabulated but it is difficult to say more about exactly when they operated.

In addition, horse gins were used to power farm threshing machines. As pointed out to us by the late Professor Paul Bishop, these can generally be recognised on early OS maps by the presence of small roundhouses on farms, which were an intrinsic part of horse gins. Systematic counts of horse gins in river catchments are difficult as the gins are not associated with any particular stream or river and the definition of river catchments is often not clear. No horse gins were found in the Avon Water catchment.

A total of 6 possible water-powered threshing mills was found in the Avon Water catchment and these are listed in Table 2. The list starts upstream and moves downstream. All the tributaries and mill streams relating to these threshing mills were small and were either unnamed or had names that could not readily be found.

**Table 2: Possible Threshing Mills in the Avon Water Catchment**

Mill
Great Arnewood
Sway House
South Sway Farm
Ramley Farm
Cook's Farm
Barnes Farm

**Note:** In total there were 10 watermills in the Avon Water catchment, 4 commercial and 6 farm (threshing mills). We have been unable to specify the function of one of the commercial mills, but the other 3 were cornmills, so 9 watermills in total were definitely involved in the processing of corn.

## Short Bibliography

<b>Title</b>	<b>Author (s)</b>	<b>Publisher</b>	<b>Date</b>
The King's England – Hampshire & The Isle of Wight	Mee A. ed.	Hodder & Stoughton	1956
The Castles of Wessex	Salter M.	Folly Publications	2002
Water and Wind Power	Watts M.	Shire	2005

### Websites

<b>Site</b>	<b>Comment</b>
<a href="http://britishlistedbuildings.co.uk">britishlistedbuildings.co.uk</a>	
<a href="http://heritagegateway.org.uk/gateway/">heritagegateway.org.uk/gateway/</a>	English historic buildings
<a href="http://maps.nls.uk">maps.nls.uk</a>	Historic maps
<a href="http://drtomsbooks.files.wordpress.com">drtomsbooks.files.wordpress.com</a>	My own gazetteer of ancient bridges
<a href="http://en.wikipedia.org">en.wikipedia.org</a>	
<a href="https://www.british-history.ac.uk/">https://www.british-history.ac.uk/</a>	
<a href="http://ceh.ac.uk/index">ceh.ac.uk/index</a>	Hosts the National River Flow archive
<a href="https://bahs.org.uk/AGHR/ARTICLES/24n1a3.pdf">https://bahs.org.uk/AGHR/ARTICLES/24n1a3.pdf</a>	The Distribution of Wheelhouses in the British Isles

In the course of the project, we have read guidebooks acquired during visits to historic sites, and we have consulted many local websites, too many to list. We have extracted facts, but have not copied text. We want to thank those responsible for making useful information available.