

**YCCART 2023/Y16**

**Further notes on the Kingston Seymour medieval tide mill**

**YATTON, CONGRESBURY, CLAVERHAM AND CLEEVE ARCHAEOLOGICAL  
RESEARCH TEAM (YCCART)**

General Editor: Vince Russett



*Salvage recording on site amid preparations for concrete pouring, 1982*

<b>Page</b>	<b>Contents</b>
3	Abstract Acknowledgements Introduction
4	Site location Land use and geology
6	Historical & archaeological context
9	Documentary evidence
11	The tidal reservoir
12	Dating the mill
14	Photographic records
16	Recommendations References
17	Appendix 1: Possible tide mills in North Somerset

## **Abstract**

*Forty years ago, staff of the Woodspring Museum and local helpers made salvage records of timbers at an engineering site on the sea wall at Kingston Seymour. New material and techniques have emerged since that time, which establish (along with medieval documentation) that this was almost certainly a water-mill, and very likely, a tidally-powered example. As Evans herself points out, it is a little surprising that given the tidal range of the Severn, the concept of the tide mill on its shores has not been explored more fully.*

## **Acknowledgements**

1982: (from Jane Evans) Acknowledgements are due to the following: Lester Durston and the men of Wessex Water for allowing access, Ken Stuckey for much help with local lore and documentary research, Keith Gardner, Mike Ponsford and Martin Bell for visiting the site and discussing its possible function. Pam Kostyla for drawing my attention to the inscribed stone (now on loan to Woodspring Museum), Graham Morgan for identifying the wood, John White of West Air for air photographs of the area under floods (nos. 34138, 34140), John Clark of the Museum of London for parallels to the Kingston Seymour stone tithe measure, Vic Hallett for the Oldbury reference, Stan Rendell for reference to the Uphill Mill and Sharon Poole for noticing a watermill at Uphill on the Greenwood map.

2023: (From VJR) Thanks to Jane Bell for sharing her wide local knowledge of Kingston's history (and especially the 1821 parish map), and the late Keith Gardner for use of his 1982 photography. Thanks to John Harris for arranging the fascinating (if somewhat bumpy!) IDB visit to sites along the sea defences in October 2023.

The less said about Health and Safety in 1982, probably the better.

## **Introduction**

Yatton, Congresbury, Claverham and Cleeve Archaeological Research Team (YCCART) is a Community Archaeology team working across northern Somerset.

Our objective is to undertake archaeological fieldwork to enable a better understanding and management of the heritage of the area while recording and publishing the activities and locations of the research carried out.

*And where do you think 'Time and Tide wait for no man' comes from? - Anon*



## Site location



Fig 1: General location



Fig 2: Detailed location

The mill site lies on the site of the modern sluice, whose installation in 1982 was the occasion of the recording works. This is on the sea wall at ST3777466334, some 700m west of Mendip View Farm, on Yeo Bank Lane, in the parish of Kingston Seymour.



The immediate area has been subject to large excavations for compensation reservoirs and sea bank realignment, but these have not affected the mill site itself.

The area lies 4.2km SSW of the seaside town of Clevedon, in the Local Authority of North Somerset.

### Land use and geology

The site is at a complex juncture of natural Tidal Flood Deposits, partially canalised waterways, and engineering connected with centuries of sea defences around Kingston. The photographs and sections indicate the floor of the engineering did not reach below the grey alluvial clay.



*Fig 3: South face of the engineering excavation for the new sluice, 1982  
Photo: Keith Gardner archive*

The original paper in 1983 was equivocal about how much was natural and how much backfill: the clear presence in the section of normal slightly oxidised upper layers implies that at least some of the exposed face is mainly natural.

This is complicated by the fact that archaeology related to the mill continues into this southern face: original construction details were not recoverable in the very limited time available in 1982 for recording.

## Historical & archaeological context

**1982:** A full account of the recording of the site at Kingston Tide Mill was published in Bristol and Avon Archaeology in 1983 (Evans 1983), with some discussion of the nature of the site. A later radiocarbon date was obtained (Gardner and Rippon 1997) for remaining wood at the site that had been stored at a nearby farm (see below).

Evans's conclusions were clear but guarded:

*To summarise: without further excavation, not now practicable as Wessex Water has completed its current programme of alterations, it is not possible to identify the structure precisely. Documentary research might help in providing a date which dendrochronology has failed to supply so far. The local name of Mill Lease is the strongest evidence for the presence here of a water mill operated in association with the tides and it is suggested this would date to somewhere within the period 12th to 16th century. The mill was in disuse by the time the early 17th century reclamation of warths took place outside the seawall. During these improvements the mill was dismantled and the wheelpit filled in to make good the seawall, leaving an outlet for the rhyne system along the bypass channel. The 1982 improvements reinstated the rhyne to the original, or earlier, line of the outlet. (Evans 1983)*

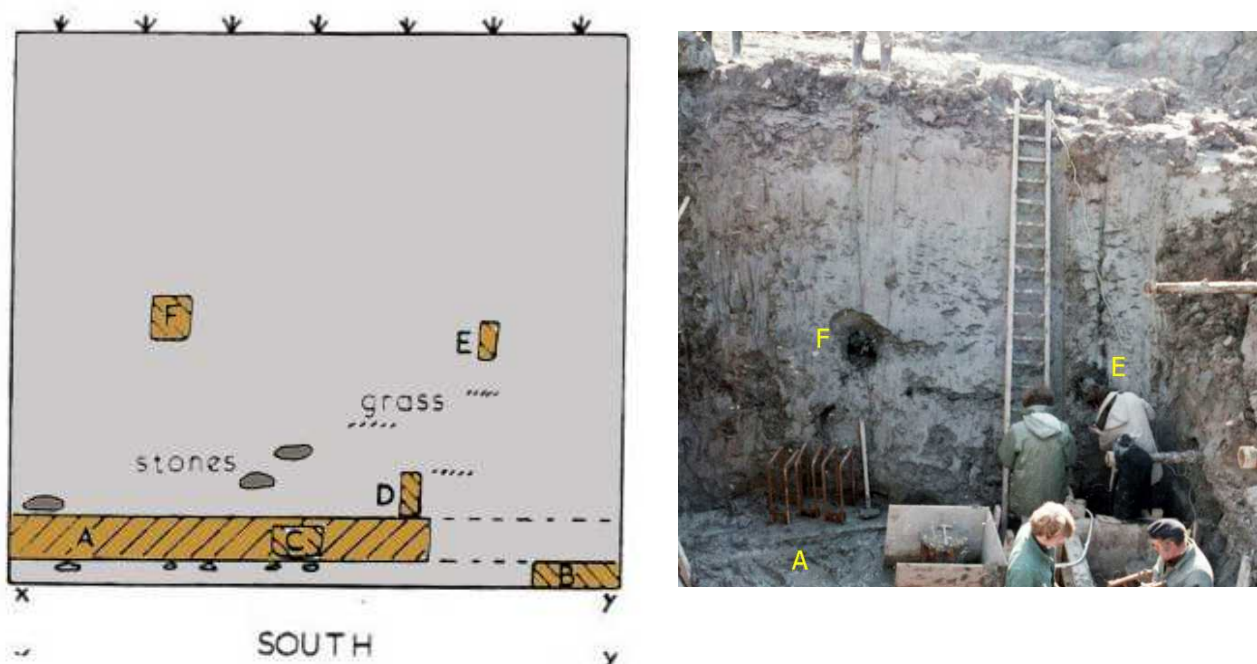


Fig 4: South section of recorded works, 1982, (Evans 1983) and photograph (Keith Gardner archive)

(Incidentally, we can now find references to 'warthys' at least as early as the 1430s (see below), and very likely, they are a part of the same phenomenon that saw what turned out to be temporary taking in of land on high moorlands and in wetlands in the high medieval period, before the demographic disaster of the Black Death rendered such marginal intakes unnecessary). Grazing in such warth areas is still valued today, especially in the shape of the phenomenon of 'saltmarsh lamb', highly spoken of by professional chefs (e.g. Oliver, 2008).

Elsewhere in the article, Evans mentions that some of the wooden beams in the site had been traced by the on-site engineers for 6m into the baulk, which suggests that elements of the site may survive in the south bank of the mill race.

Unfortunately, the floor level of the intervention was never cleared enough to photograph, but a plan was made:

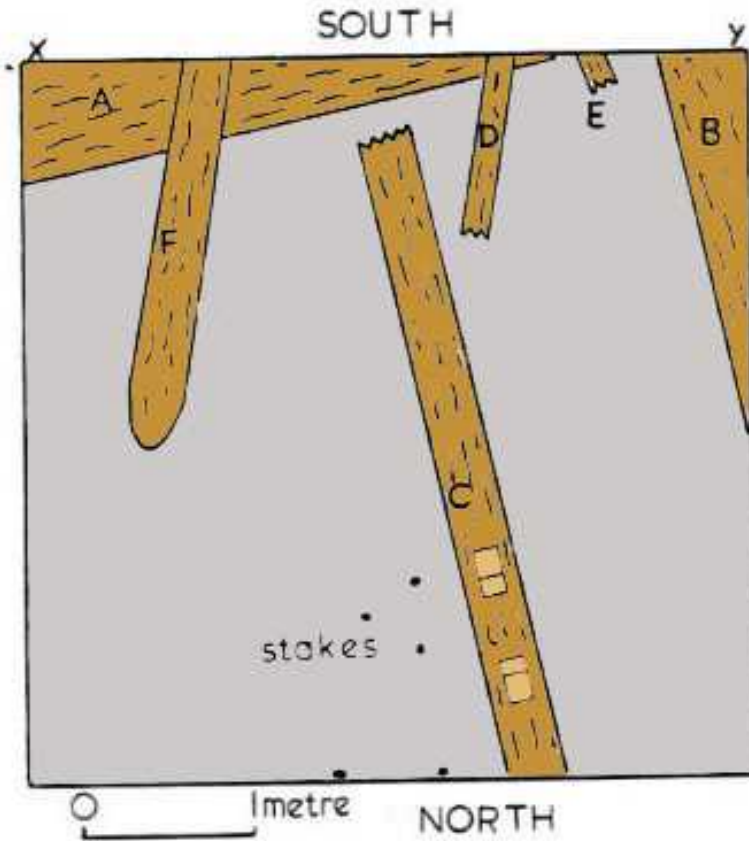


Fig 5: Plan of beams in floor of excavation (note that A and B appear at right angles) (Evans 1983).

It is just possible that beams A and B form the sides of a floor, the rest of the wood being part of the central structure of that (bearing in mind that the original excavation was by machine, not by hand).

Evans suggests:

*'The timbers therefore represent the framework which either held the water-wheel or the grinding stones. Probably there was another sluice to the seaward side of the framework to protect the mill from being 'washed through' at high tide'.*

Two items of worked wood were also salvaged:

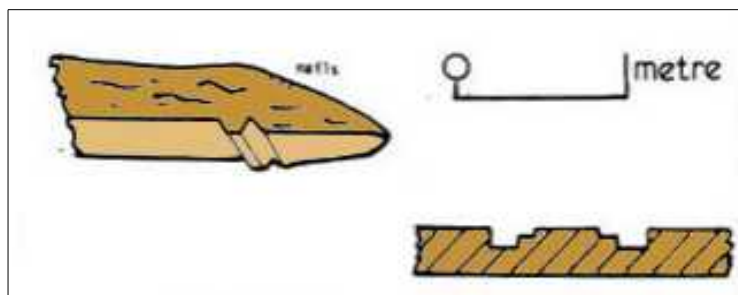


Fig 6: Recovered worked wooden elements from recording (Evans 1983)

Its not clear, but the notched wood appears to be part of beam C from the plan.





*Fig 7: Sluce before 1982 works (North Somerset 1975\_9008)*



*Fig 8: Sluce after 1982 works (North Somerset 1991 Run 20 213)*



## Documentary evidence

Evans's report emphasises the field (subsequently divided into 3) to the immediate east of the site and on the north side of Yeo Bank Lane is named Mill Lease on the Tithe Apportionment (1846) - locally pronounced as 'lays' to rhyme with 'daze' - the rhyne on the south side of Yeo Bank Lane is also called Mill Leaze Rhyne, but no pre-19th century examples have yet been found.

However, in amongst some 18th century leases in the Somerset Heritage Centre, some 14th and 15th century leases add to the meagre evidence.

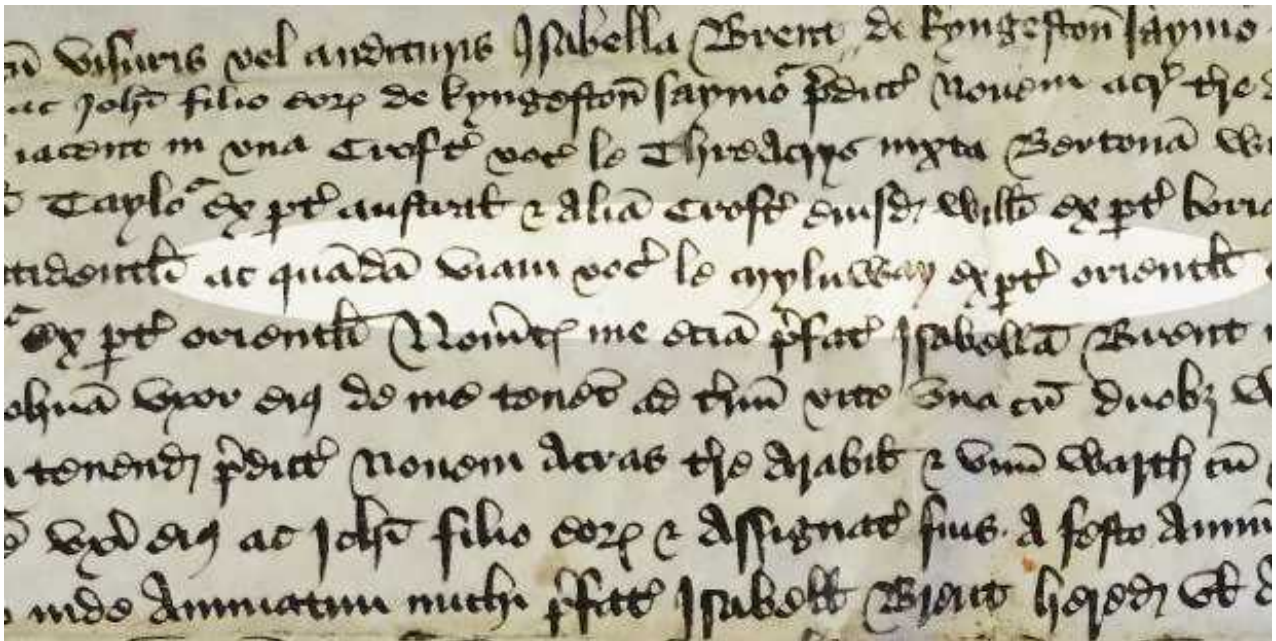


Fig 9: 1439 grant by Isabell Brent of 'kyngeston saymo' of land to one William Taylor, his wife Joan and son John (SHC DD/SS/38)

The highlighted section in Fig 9 shows the 'certain way called le mylnway' lay on the east side of one of the grants of land. Unfortunately, the various plots of arable and pasture granted by this lease are not secure enough to be certain that this line refers to what is now Yeo Bank Lane, but given the evidence of the radiocarbon dating, it seems that the lane leading to a medieval mill in 1439 would most likely be it.

A later reference in the same document refers to 'quodda' molendinum voc le Northmyln ex pt austral' ('that mill called Northmyln on its south').

The only possible complication here is that both references are plural: 'mills way' and 'North mills', but it was a commonplace to refer to a mill with two sets of grinding stones as plural, which may explain this.

Whether the 'Northmyln' reference implies the existence of a separate 'southmyln' is not clear, but should perhaps be borne in mind.

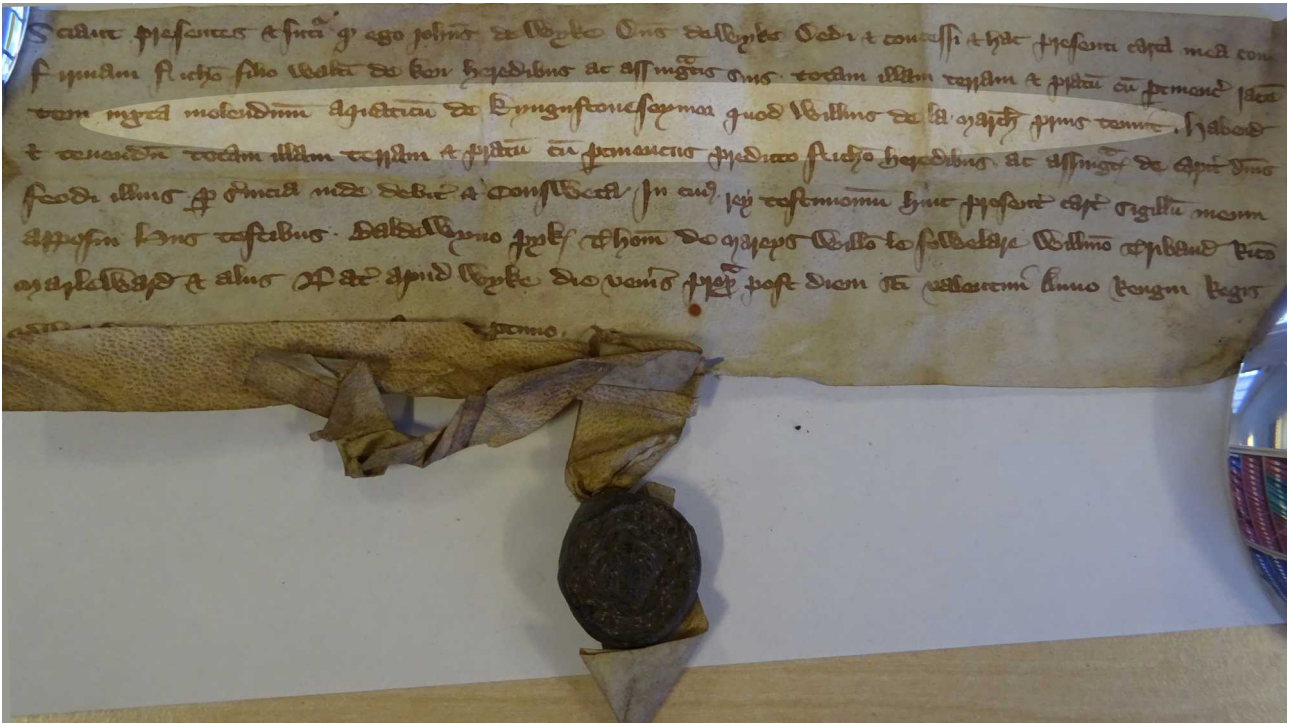


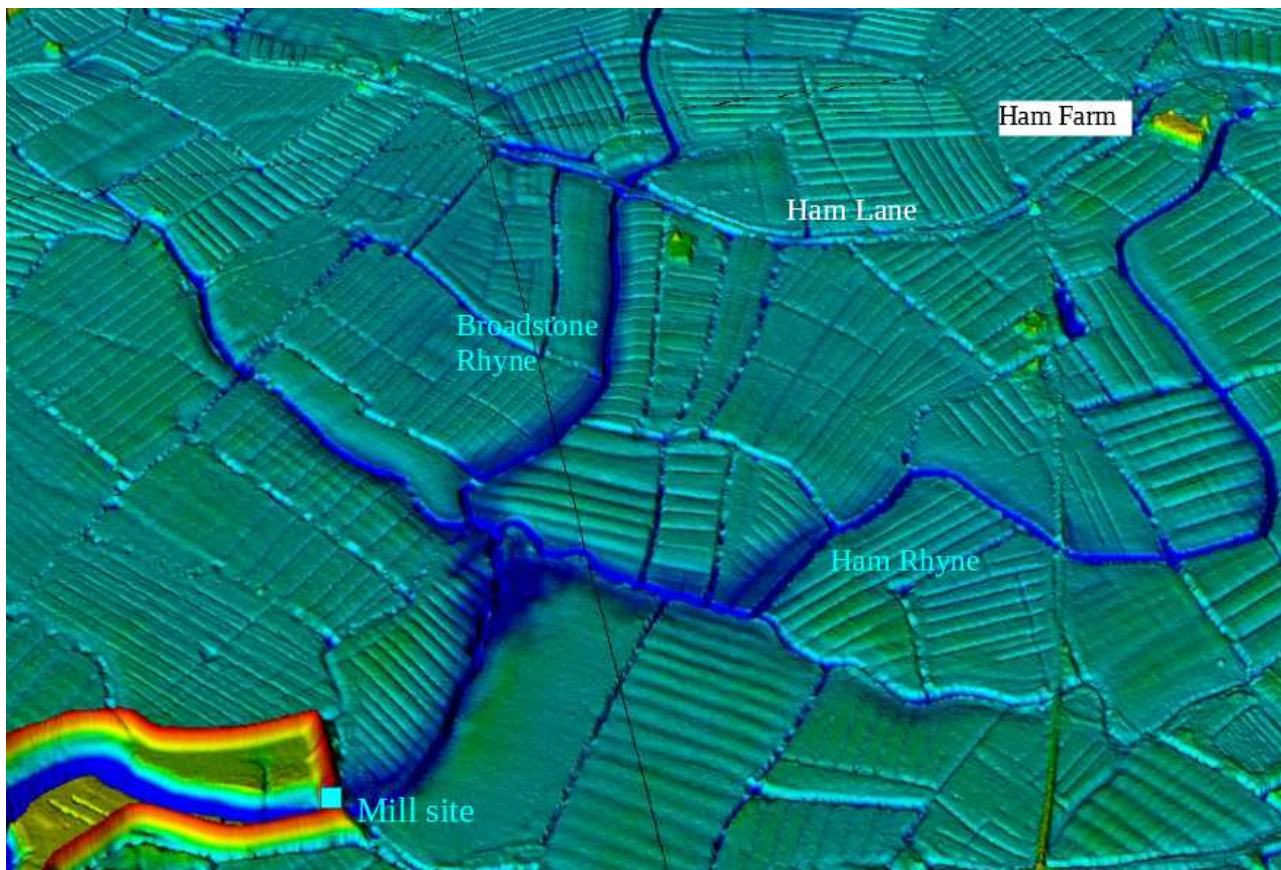
Fig 10: 1327 Grant by Johannes de Wyke, Lord of Wyke to Nicholas Walter's son of land in Kingston (also SHC DD/SS/38)

Presumably Johannes de Wyke in Fig 10 above was lord of Court de Wick in Yatton, a large and independent manor until the 19th century: the highlighted phrase reads 'next to the water mill of kyngustone seymor formerly held by William de la March'. Although the fold in the document hides the lease's dating clause, all the names of the witnesses match exactly those of the published 1327 Lay Subsidy Rolls (as does that of William de la Marsh).



## The tidal reservoir

There is little evidence today of any constructed 'millpond' upstream of the mill site, but in the presence of the Ham, Blackstone and third innominate rhyne which meet about 270m NE of the site, as much as 26,000 m<sup>3</sup> of water could be stored in the rhyne south of Ham Lane, around half of which would be salt sea water. This capacity can clearly be seen in lidar images of the area (Fig 11).



*Fig 11: Lidar image of Broadstone Rhyne complex above mill site from west (z axis x8)*

Evans's paper makes much of the danger of brackish water for livestock, but this applies mainly to milking cattle, and especially modern breeds designed for maximum milk production, such as dairy Holsteins, who require huge amounts of (fresh) water. Older breeds are more resilient and less likely to drink brackish water if fresh is available.

(Controlled) penetration of salt water into these rhyne might also account for a salt industry. A Roman salt industry is known at Kingston, from finds during construction and other works closer to the Severn: It is just possible that some circular features seen in gradiometry survey at Longworth next to the Broadstone Rhyne may be from salt boiling hearths (YCCCART 2023).



## Dating the mill

A reference in Evans 1983 to '*... documentary research might help in providing a date which dendrochronology has failed to supply so far...*' implies that this method was tried at the time. Data has improved vastly in the past 40 years and a second attempt (if the wood can be identified) might be useful.

No finds of ceramics or otherwise are mentioned in the paper, so presumably, none were found.

A breakthrough occurred in 1997 (Gardner and Rippon 1997), when timbers from the site, preserved at a local farm, were sent for radiocarbon dating. Neither reports nor the Gardner archive specify what the timber dated was; it is assumed that it was part of the structure found in the engineering pit.

This dated the timber to  $890 \pm 50$  BP, which gives a 2-sigma (95% probability of falling within these dates) of 1025-1260 CE (AD).

Unfortunately, the C14 calibration curve used to adjust the dates has an awkward bend around this period, and thus 1-sigma dates (65% probability) occur at both 1045-1105 CE and 1115-1220 CE.

There is little or no documentary evidence for this dating. According to Corcos (2000), Kingston may have been transferred to Chewton Hundred in 909AD, when presumably, any new owners would be looking to maximise use of a new asset (although Kingston in its lowland state, only emerging from the post-Roman climatic downturn around this time, would have been far better suited to pastoral farming, fishing and potentially, salt-winning).

While Kingston is a comparatively wealthy manor by Domesday in 1086, the wealth assumed to be generated by arable farming (although we should always remember Domesday's bias against pastoral agriculture), and while it makes much of the 18½ ploughs and 25 carucates of arable, there is no mention of a mill. Kingston's two manors do, though, seem to have grown in value.

According to Collinson (1791), t Henry II (1154 x 1189), the lords were the Malherbes, but the manor was transferred to the de Sancto Mauro (Seymour) family in 1198: this transfer may be another time at which construction of a water-mill was the action of an incoming land owner.

We know (see above) that the mill was a landmark by 1327.

These rather weak bits of evidence are all that can at present be said. Recovery and more modern radiocarbon dating of wood from the site might solve this current issue.

## CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: estimated C13/C12=-25:lab mult.=1)

Laboratory Number: Beta-112242

Conventional radiocarbon age\*:  $890 \pm 50$  BP

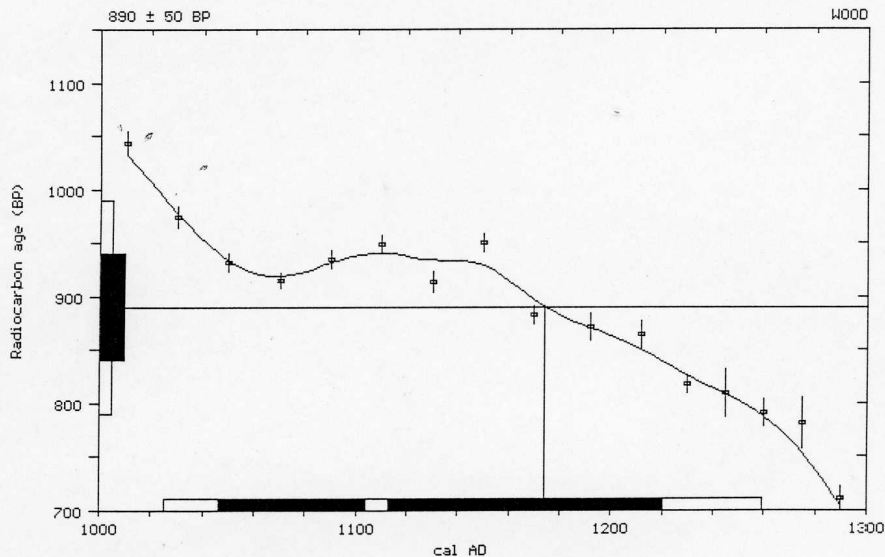
Calibrated results:  
(2 sigma, 95% probability) cal AD 1025 to 1260

\* C13/C12 ratio estimated

Intercept data:

Intercept of radiocarbon age  
with calibration curve: cal AD 1175

1 sigma calibrated results:  
(68% probability) cal AD 1045 to 1105 and  
cal AD 1115 to 1220



References:

*Pretoria Calibration Curve for Short Lived Samples*

Vogel, J. C., Fuls, A., Visser, E. and Becker, B., 1993, *Radiocarbon* 35(1), p73-86

*A Simplified Approach to Calibrating C14 Dates*

Talma, A. S. and Vogel, J. C., 1993, *Radiocarbon* 35(2), p317-322

*Calibration - 1993*

Stuiver, M., Long, A., Kra, R. S. and Devine, J. M., 1993, *Radiocarbon* 35(1)

### Beta Analytic Radiocarbon Dating Laboratory

4985 S.W. 74th Court, Miami, Florida 33155 ■ Tel: (305)667-5167 ■ Fax: (305)663-0964 ■ E-mail: beta@radiocarbon.com

Fig 12: Miami  $C^{14}$  dating certificate, 1997

## Photographic records

The site today:



*Fig 13: Mill race below the sea defences, 2023-10-28*



*Fig 14: The river below Tutshill Ear, 2023-10-28*



The sluice to the right is the site of the 1982 investigations: the left hand side of the channel close to and adjoining (mid-ground of photograph Fig 13) has some archaeological potential for the survival of structures of, or relating to, the mill. In use, however, note it would probably have looked more like the river at Tutshill Ear (Fig 14): both figures show clearly the extent in salt water penetration by the dramatic change in vegetation at the upper edge of their channels.

**1982:**



*Fig 15: The site (foreground), Broadstone Rhyne curving away to the left in the mid-ground, Clevedon in distance (Keith Gardner archive)*

## Recommendations for further work

Obviously, any further work on the sea defences in this area should be subject to watching brief as a minimum response: further work in the archives may help with dating evidence. If wood reliably from the site could be recovered, further radiocarbon dating could be useful.

## References

Collinson, J. 1791	<i>History and Antiquities of the County of Somerset, Bath</i>
Corcos, N. 2000	<i>The affinities and antecedents of medieval settlement: topographical perspectives from three of the Somerset Hundreds</i> PhD thesis, University of Bristol
Evans, J. 1983	Discovery of a possible tide mill at Kingston Seymour. <i>Bristol and Avon Archaeology</i> 2: 40-44
Gardner, K. and Rippon S. 1997	A possible 12 <sup>th</sup> century mill at Kingston Seymour, North Somerset . <i>Archaeology in the Severn estuary</i> 8: 102
Horton, M. 1997	<i>Former St Peters VC school, High Street, Portishead, North Somerset: archaeological evaluation</i> Unpublished document in North Somerset HER
LaTrobe Bateman, E. 1998a	<i>Clevedon in Historic England Extensive Urban Surveys Unpublished document in North Somerset HER</i>
LaTrobe Bateman, E. 1998b	<i>Portishead in Historic England Extensive Urban Surveys Unpublished document in North Somerset HER</i>
Oliver, J. (Jamie) 2008	<i>Jamie at Home</i> (DVD) (TV on demand, London)
Williams, M. 1970	<i>The draining of the Somerset Levels.</i> Cambridge University Press, Cambridge
YCCART 2023	Geophysical survey at Longworth, Ham Lane, Kingston Seymour <i>Available at <a href="http://yccart.co.uk">yccart.co.uk</a></i>

## Authors

Vince Russett

## Date

2023-12-18

## Appendix 1: Possible tide mills in North Somerset

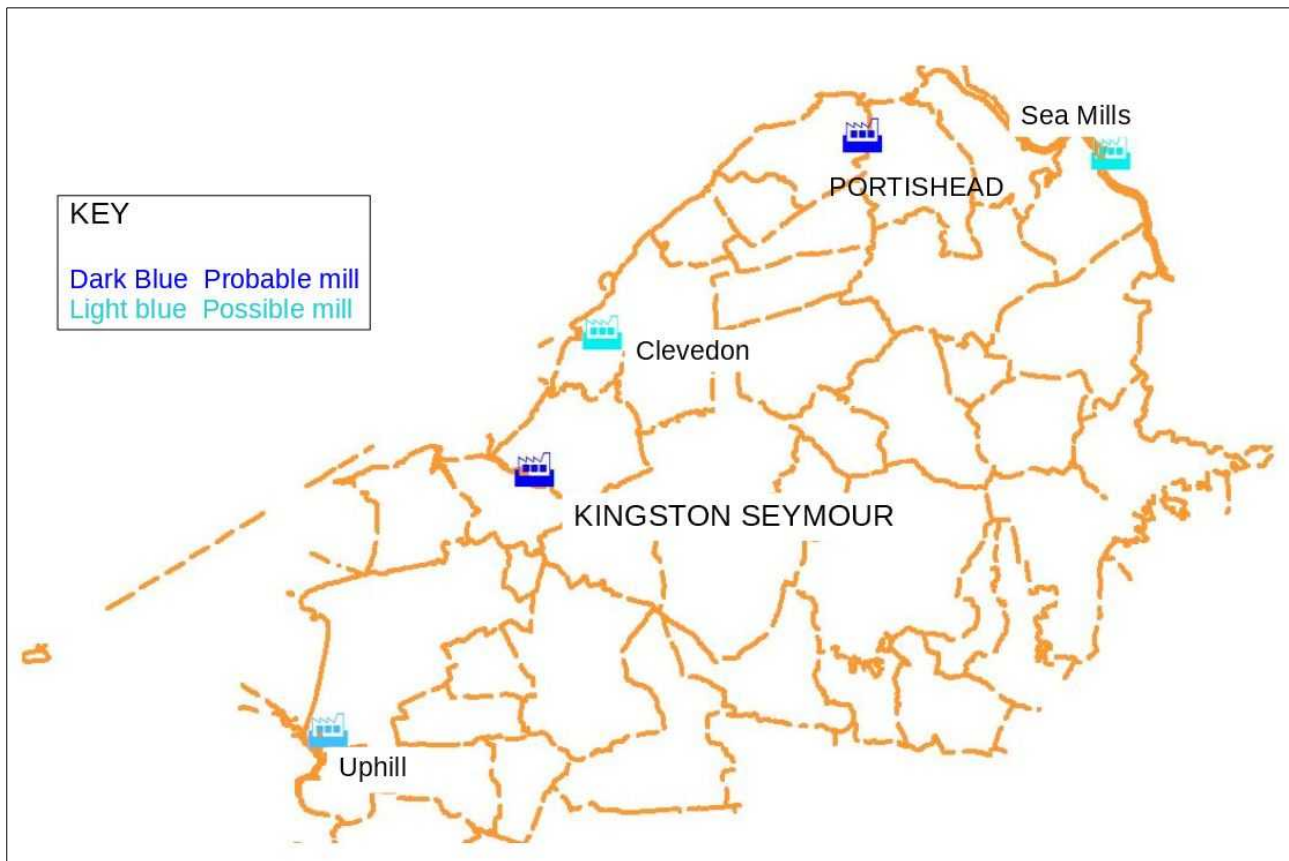


Fig 16: Probable and possible tide mills in North Somerset

### Clevedon

A mill was definitely sited at the Clevedon Pill on or near the sea bank (LaTrobe Bateman 1998a; J Lilly *pers comm*), and wooden fittings possibly from it were found during sea wall works in 2005 (VR *pers obs*). This could well have used the Land Yeo as a tidal storage area for a tide mill, but direct evidence is lacking.

### Portishead

The only other probable tide mill on the North Somerset coast is Portishead, part of which mill survives as the White Lion pub at the northern end of High Street (originally Mill Street - Horton 1997). A mill worth 8 shillings was recorded at Domesday in 1086 (LaTrobe-Bateman 1998b). When enclosure of lower Gordano was attempted in 1810, the permitted use of the river behind the mill as a tidal reservoir for the mill was problematic, and eventually, the mill part of the building had to be bought and demolished before full drainage in Gordano was possible (Williams 1970). A compound millstone has been built into the sea wall.

### Sea Mills



This site now in Bristol LA has been sited as a potential tide mill site, but may simply reflect an antiquarian misunderstanding of the placename.

## **Uphill**

A potential tide mill is referenced at Uphill in Evans 1983, citing Greenwoods map of 1822, but neither this, nor the late 18th century map (SHC A/CFH1/10167) or the Tithe Map seem to show or allude to this.