

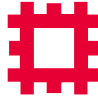
WATER STREET, LAVENHAM, SUFFOLK A DESK-BASED ASSESSMENT OF A BRICK CULVERT

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**Water Street, Lavenham, Suffolk: A desk-based
assessment of a brick culvert**

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SUMMARY

In January 2007 English Heritage carried out an archaeological investigation into a reputed late medieval brick culvert running below the modern ground surface in Water Street, Lavenham. A combination of desk-based research and a site visit revealed limited evidence of a single phase, late medieval culvert. Instead the culvert appeared to date from a number of different periods, largely post medieval, and had undergone significant repairs and alterations.

INTRODUCTION

In January 2007 English Heritage carried out an archaeological investigation into a reputed late medieval brick culvert running below the modern ground surface. It is believed to be located in Water Street, Lavenham between (TL 9152 4916) and (TL 9189 4909) within the Lavenham Conservation Area and presently functions as a storm drain in the ownership of Anglian Water, although its exact relationship with other drainage systems and utilities along the street is unclear. It is inaccessible to the public and was not recorded in the National Monuments Record at the time of survey.

The culvert is believed to be located from the open water course on the west side of High Street, running eastwards across Church Street and along the route of Water Street for a distance of nearly 400m, and potentially passing beneath a number of buildings on the south side of Water Street. Nineteen Listed Buildings are located on the south side of Water Street, including twelve dating at least partly to the late medieval period. There is also a cast iron Gas-Holder in the grounds of 47 Water Street dating to 1862, Scheduled Ancient Monument (SF220).

In 2003, the Water Street culvert was the subject of a Listing application. In response to a request from English Heritage's Heritage Protection team the Archaeological Survey and Investigation team undertook desk-based research of the culvert in order to ascertain its location and understand its current form.

Following a Risk Assessment of the site due to the enclosed nature of the culvert the survey team were prevented from entering the system. As a result the field survey consisted of a site visit, recording the position of the culvert through the location of surface access points and other available evidence.

BRIEF HISTORY OF LAVENHAM AND CURRENT STATE OF KNOWLEDGE OF THE CULVERT

The culvert is thought to have been built in the late medieval period at a time when Lavenham enjoyed great success through its involvement in the cloth industry. Textile manufacturing was growing steadily in the town from at least the 14th century, experiencing great prosperity in the 15th century before entering a period of prolonged decline from the late 16th century onwards when it was eclipsed by textile industry in other centres, a course of history that has enabled the survival of much of the town's late medieval fabric (Betterton & Dymock 1982, 3-8, 27). A brief analysis of the town plan demonstrates the nature of growth in the town. The earliest settlement probably grew around St. Peter and St. Paul's Church and Church Street, extending up High Street in the 13th century having received its market charter in 1257. The growth of the cloth trade in Lavenham probably led to more extensions down Water Street from the 14th century, and significant expansion on Prentice, Bolton, Lady, Barn and Shilling Streets which appear to fossilise the line of former ridge and furrow, physically demonstrating the movement from an arable base to a successful textile manufacturing settlement at Lavenham. An estate map dated to 1580 depicts Lavenham on its periphery, and although there is no representation of the culvert watercourse along Water Street, the map does imply that the density of buildings on Water Street was lower than on Church Street or High Street, a fact which may be relevant when considering why a culvert was built in this location (Suffolk Records Office: 2130/1). Lavenham appears to have seen only limited growth since its late medieval and early post medieval heyday based on the extent of surviving buildings from that date, with significant development only in the south-west and northern peripheries of the town.

Lavenham is built around two tributaries flowing westwards into the River Brett, one of which is the watercourse in question which today passes below Water Street. The importance of the watercourse lay in its use in the cloth and dyeing industries that lay at the heart of Lavenham's late medieval prosperity. There are a number of examples of fullers and other members of the cloth industry holding land and property on Water Street although with no conclusive evidence that they undertook any part of the cloth manufacturing process at that location (Betterton & Dymond 1982, 18-9; Meredith 2004, 2). Previous researchers of the Water Street culvert have suggested that the previously open watercourse was channelled in the late medieval period, and that buildings may subsequently have encroached over the culvert, with owners of these properties maintaining their own access points for domestic or industrial use (Meredith 2004, 1). It has also been put forward that secondary culverts feed into the Water Street culvert from Church, High and Shilling Streets. There is no known documentary reference to any culvert or other water management schemes in the area, although related evidence may stem from moneys donated to the repair of roads as, for example, with the 200 Marks left in the will of Thomas Spring, a man whose wealth came from the Lavenham's prospering textile industry (VCH 1907, 256).

The culvert is believed to have been inspected by a number of researchers who have supported claims that it dates to the early 16th century, although the full form and layout of the culvert has never been recorded (Jane Gosling Pers. Comm.). The culvert was also noted during various episodes of maintenance and improvement to the drainage system, and video footage of part of the Water Street system has been recorded remotely. The exact location of the footage along Water Street is not given, and in different parts of the recording the camera is travelling with and against the flow of water, so it is of little use in trying to reconstruct the layout and form of the culvert from this evidence. It does show that in large parts of the culvert (the video probably covers between 25-40% of the entire length), including one section of the culvert at least 100m in length that there is no visible fabric that was identified as obviously late medieval in date. In contrast, the culvert appears to have been rebuilt along different sections with a range of materials and in various overall forms at different dates ranging from the late medieval period up until the present.

THE ARCHAEOLOGICAL REMAINS OF THE CULVERT

The entire length of the water course which is in part channelled by the culvert was examined, the extent of which does not seem to have changed since its depiction on the 1886 Ordnance Survey 6-inch map (Sheet LXIV). The stream issues from a spring west of Lavenham at the head of a shallow valley at TL 9112 4901. From this position it flows a distance of about 100m in a north-easterly direction where it passes beneath Potland Lane on the outskirts of the village. This initial section is marked on its north-western side by a steep drop of ground of 2m, possibly the remains of a lynchet which may have been accentuated by subsequent dumping of waste material beside the stream course. The ground level rises more gradually on the south-eastern side where a low linear ridge about 20m from the stream marking a similar lynchet on that side of the water course.

On passing below Potland Lane the stream continues for another 120m where it enters a large man-made pond at (TL 9133 4915) attached to Lavenham Hall (Grade II Listed Building: 276693). The eastern end of the pool is defined by an earthwork dam about 45m in length. Possible bypass channels are visible at the northern end of the dam, which alternatively may have been formed from an earlier incarnation as a smaller fishpond. Passing through a sluice in the dam and beneath a footbridge on its eastern side, the stream course continues eastwards about 150m between rear property boundaries on both banks, and which was inaccessible to the survey team. Modern maps suggest part of this stretch of the stream has been channelled into a broader course.

At (TL 9152 4916) the water course drops down below the road level via a concrete sluice and runs through beneath the junction of Church Street, High Street and Water Street. Its location at this point was mapped from a photograph of the culvert undergoing repair taken around 1926 and the understanding that the culvert cannot pass below the cellarage of 74 Water Street (Mike Hodges Pers. Comm.). The section of housing around 74 Water Street, including buildings of 15th to 16th century date, known as Merchants Row (Grade II Listed Building: 276660, 276846) were heavily renovated in the mid-1980s but still maintain their original street frontage. On this basis it is believed that the culvert does not continue beneath the standing properties at the western end of Water Street but continues beneath the south side of the street and the pavement.

The next positive identification of the culvert is at 67-68 Water Street (Grade I Listed Building: 276843), commonly known as The Priory with 69 Water Street (Grade I Listed Building: 276844) which is believed to have previously been a single property under the ownership of Earles Colne Priory in Essex (Tim Pitts Pers. Comm.). At this point the culvert passes beneath 67-68 Water Street about 1m behind the street frontage, confirming the culvert's location on the south side of the street. A viewing hatch to the culvert has been installed in the floor of this property, and a second exterior manhole entrance (Figure 1) is located on the west side of the property at (TL 9160 4914). From the viewing hatch the brickwork visible appears to be of a potentially late medieval or early post medieval date, although a large part of the visible culvert has been rendered and possibly

rebuilt. However, The Priory has been dated architecturally to the 15th or 16th century and on this basis post-dates the culvert, although this section of the timber-framed structure may be a later 16th century addition, perhaps even post-dating the Dissolution and Earls Colne Priory's tenure in the 1530s. It also re-affirms important questions concerning the function of the culvert and its relationship with properties, residences and industries located on Water Street.



Figure 1. A drain cover at 68 Water Street demonstrates the culverts route to the rear of the modern street frontage and passing beneath 67-8 Water Street. Note the early brick sill abruptly ending on the right side of the photograph

After passing beneath the Priory the next row of housing are all late post-medieval in date, and it is therefore unclear whether the culvert continued to run beneath properties or passed back out in front of the late medieval street frontage. A man-hole cover in front of 61 Water Street (Grade II Listed Building: 276839) which neighbours a 15th century building at 59-60 Water Street (Grade I Listed Building: 276838) may confirm the latter.

At this point the street turns slightly to the north and there is a break in housing on the south side of the road, and a man-hole cover is visible in the pavement at (TL 9167 4912) which may indicate the continuing line of the culvert. However, two man-hole covers are visible a little further eastwards beneath a covered archway on the western side of a timber-framed building believed to have been built in 1425 as an inn at 58 Water Street (Grade II* Listed Building: 276837). If these latter access points also demonstrate the course of the culvert then the evidence at 58 Water Street again suggests that the culvert passed beneath properties on the south side of Water Street. The unconfirmed date of 1425 sits awkwardly with proposed later date of the culvert although both the neighbouring structures to the east at 55-57 Water Street (Grade II* and II Listed Buildings:

276835, 276836) that maintain the same street frontage as 58 Water Street have both been Listed as fifteenth century in date. It may be that the man-hole covers at 58 Water Street do not relate to the culvert, but if they do pass beneath the row of housing at 55-58 Water Street then either the Listing dates need to be refined or that these buildings were re-erected on their present sites at a later date, or more significantly that at least some sections of the culvert may date back into the fifteenth century. As with 67-69 Water Street the property frontage again shows a slight bulging encroachment over the curve of the road, and so there is a possibility that the culvert may pass below 55-58 Water Street (shown as a dashed, divergent line on figure 2).

From this point the next identification of the culvert's route comes from the negative evidence of an archaeological evaluation trench to the east of 49 Water Street on the Lavenham Press site (Meredith 2004, 4-5). This trench which was located back from the street frontage represented by 49-52 Water Street which includes one building dated to the 15th to the 16th century (Grade II Listed Building: 276833). The trench found no evidence of the culvert, although there was significant evidence of a brick structure probably functioning as part of the cloth industry and tenuously dated to the 16th century by a single, eroded brick, as well as earlier evidence of 14th century occupation (Meredith 2004, 5). The foundations of a long, rectangular 'public trough' laid out at a right angle to Water Street was also identified during this excavation which was still in use in living memory, and it has been suggested that it may have been a much older feature, possibly linked to the Water Street culvert system. Alternatively a groundwater flow from a solitary pond to the west of the trough at (TL 9159 4901) may have been the source of water for the 'trough'. The location of the evaluation trench was still visible in the car park's tarmac surface at the time of the survey.

To the east of this trench is 47 Water Street (Grade II Listed Building: 276830) with a 15th century Listing date. There are no other late medieval or early post medieval buildings surviving any further east than this on the south side of Water Street. A number of man-hole access points are visible on east and west sides of this building, although these are likely to be linked to utilities attached to the extensive printing works at the rear of the property, and there is no evidence to suggest that the culvert continues its route in front of the present street frontage and beneath the modern pavement.

It is unlikely that any original 16th century culvert would have continued any further eastwards given the lack of any other building in this area prior to the 19th century, and probably opened out as a conduit or open stream course. This section is now a culvert, probably dating to the later post medieval period, and emerges as an open stream course on the east side of Brent Eleigh Road at (TL 9189 4909). The stream then continues an open curving course with a channel width of about 1.5m for 170m until it joins the River Brett at (TL 9203 4915). Interestingly this latter stretch of the stream defines an area now known as The Common, the name of which may date back to at least 1528, although its exact status or function as common land or otherwise is not defined by the available sources (Betterton & Dymond 1982, 19), but the funnelled shape of which on the 1842

tithe map has the distinct appearance of a possible drove way. The significance of this may be that if it is late medieval in date the presence of a drove way may suggest herds of sheep were being brought in to Lavenham (rather than just their fleeces) from west of the River Brett. It also raises further questions as to what industries and activities were taking place on Water Street and the general working mechanisms of the local cloth industry, all of which may relate directly to why the culvert was built and what its function was within this part of the town.

DISCUSSION

The survey of the Water Street culvert in Lavenham has enabled its probable route to be mapped. Due to the health and safety issues surrounding the investigation of an archaeological feature of this type some ambiguities remain as to its exact course, and its relationship with the 15th century properties at 55-58 Water Street is highly significant.

The evidence available of a late medieval date for the culvert is ambiguous. Only at the viewing point at 67-69 Water Street was there convincing evidence of early brickwork, supplemented by the fact that it was overlain by a timber-framed building Listed as 15th to 16th century in date, and provides conclusive proof that at least part of the built culvert is of an early date. All other images of the culvert made available during the Anglian Water survey appeared later post-medieval in date. The suggestion that secondary channels may have fed into the Water Street culvert is probable, and confirmed by two still images available in the project file with one showing a side channel entering the Water Street culvert from the direction of High Street. However, these are interpreted as late post medieval drainage works diverting surface water from these steep side streets.

The natural water course along Water Street pre-dates the settlement of Lavenham, but the date at which it the culvert along the length of Water Street was constructed is debatable. It is possible that extensive sections of the culvert have been repaired and rebuilt since the 16th century, masking the early fabric of the culvert but in general maintaining its original course. A second possibility is that the water course remained open in the sixteenth century, or perhaps as a lined conduit, and that only specific properties such as the known example at 67-69 Water Street invested in building over the water channel allowing them to encroach over the street frontage. The latter action would have provided covered access to the water source so essential for the textile industry, and there is a slight bulge in the pavement and street frontage at this point at odds with the otherwise curving line of Water Street as a whole. Elsewhere the channel may have remained as an open conduit or had specific access points while the property remained directly involved in the cloth industry and also worked as an architectural demonstration of status by individual property holders. This interpretation would also explain why early fabric has so far only been observed at this location, and would be interesting given the properties suspected monastic owner given that medieval culverts as part of domestic and industrial arrangements on monastic sites are a more well-known phenomenon. It may be relevant that only the ground floor of the western side of 67-8 Water Street which extends over the course of the culvert (i.e. where the culvert entered the building) has been in-filled with post-medieval brick, while the other two sides of the ground floor are made up of close-set timbers. The piecemeal encroachment over the open water channel would also help to explain why the culvert does not consistently follow the street, but instead is located in front of and to the rear of the present street frontage.

The interpretation of the Water Street culvert is also hampered by an imperfect understanding

of how Lavenham's cloth industry functioned. The question of why the water channel would be enclosed prior to the decline of the local cloth industry remains a valid one given its fundamental link to late medieval textile manufacture. The possibility of a drove way at the east end of Water Street may also be important when considering the role of Water Street in Lavenham's wider cloth industry if sheep were being brought into the town.

In summary there is inconclusive evidence of a single late medieval or early post medieval culvert running underground along the length of Water Street. The available evidence suggests that parts of the culvert may contain sections of late medieval or post medieval brickwork. The meandering nature of sections of the culvert and the variety of brick evident in the available photographic and video sources indicate that the stream was gradually enclosed in a culvert over a period of time. Numerous repairs and fabric from a number of different phases of activity are also evident, and it is suggested that early sections may have been constructed as individual entities by the owners of adjoining properties during Lavenham's late medieval heyday. If further information is required then investigators will need to be trained and equipped to work within confined space environments.

METHODOLOGY

The desk-based assessment consulted records at Suffolk County Council's Sites and Monuments Record and Suffolk Records Office. The National Monuments Record was also searched, including full Listed Building reports of relevant properties. The site walkover was undertaken on 23 January 2007 by Michael Fradley and Wayne Cocroft. Mike Hodges, Tim Pitts, Richard Ward and Jane Gosling all provided additional information.

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