An Archaeological Assessment of Late-Medieval Trowbridge, Wiltshire

Historic Building Consultations

Dr Richard Haddlesey – March 2013
HBC/W/19/13

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Summary

This report outlines a visual and photographic survey undertaken by Dr Richard Haddlesey on the 19th of February 2013. It was originally posited by Mat Charlton that some of the Oolitic Limestone blocks found in various locations around Late-Medieval Trowbridge were re-used from the dismantled Saxon Church (*pers comm*. 2013) originally excavated by Wessex Archaeology in 1977 and 1986-8 (Graham and Davies, 1993, 33). Therefore, the main aim of this report is to assess the validity of this theory. Furthermore, a general assessment of extant evidence pertaining to Medieval Trowbridge was also undertaken at the same time, namely; No.2 (stone blocks), No.7 (an undercroft) and No.63 Fore Street (several stone fireplaces) and a Hall House in Church Street. A second archaeological investigation of two timber framed buildings – 9 Church Street and 63 Fore Street – was undertaken on the 26th of April 2013. That investigation revealed that instead of just two buildings, there were in fact 5 separate timber structures, 3 of which have been dendrochronologically dated - 9 Church Street to 1439 and 2 parts of 63 Fore Street to 1513.

Keywords

Trowbridge, 12th Century, 14th Century, 15th Century, 16th Century, 18th Century, Anglo-Saxon, Norman, Medieval, Late-Medieval, Georgian, Dissolution of the Monasteries, Fireplace, Re-used stone, Saxo-Norman church, timber-framed building, open hall, solar, rush lights, typological dating

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1 Introduction

Anyone who has wandered around an English city, town, village or farmstead cannot help but notice a huge diversity in architectural styles; from the small dwellings of the common folk to the grand designs of public buildings. Amongst the large diversity in styles, is an underlying social order unique to each period and follows set architectural rules just as grammar has set rules (Harris, 1989, 1). This "architectural grammar" relates almost exclusively to the time period in which the buildings were designed and built. Just as regions vary in spoken dialect, so too does the construction materials and styles used to create houses and public buildings in various counties across England. Therefore, just as the vernacular language follows set rules under the umbrella of the English language as a whole, so too will regional variations in architecture reflect the wider national trend. Although it may not initially be apparent to a casual observer, historic buildings follow a traditional style that reflects the craft techniques used to construct the buildings and the society for which they were built to house (Johnson, 2010, 1). When the original floor plan and construction techniques are investigated by a buildings archaeologist, it is possible to arrive at an approximate date of construction. The more original features that remain in a property, the more accurate that date can be. It is these rules that allow us to interrogate and decipher the carpentry techniques employed in the construction of a building. This, coupled with stylised rules of architecture allows us to date a building to within +/- 25 years - providing there are enough extant original features (Smith and Yates, 1992, 537-8). This type of dating is known as Typological dating and can be defined as the technique of studying a building at close quarters in order to determine the sequence in which its various parts were added, modified, or removed (Alcock, et al., 2003, Taylor, 1972, Taylor, 1976).

As Winston Churchill once said; 'The further backwards you look, the further forward you can see'. I believe this statement can easily be applied to the study of buildings, so that we can make informed decisions about a buildings future and the important historical elements that must be retained to preserve the buildings cultural and historic integrity. Research has shown that architecture directly reflects the socio-economic conditions that were in play during the conception and completion of the vast majority of our historic buildings.

It is a combination of the above factors that have been utilised within this limited survey of Late-Medieval Trowbridge in order to produce this report. A report that aims to articulate the author's findings based on data recorded by the initial investigations and subsequent research with years of experience as a buildings archaeologist.

2 Background

Trowbridge is the County Town of Wiltshire and is situated in the west of the county, roughly two miles east of the county borders of Somerset and Avon. Trowbridge is relatively flat and sits on top of a layer of Oxford Clay.

Figure 1 Location map of Trowbridge within the county of Wilshire

The towns earliest recorded reference is in the ‘‘Domesday Survey’’ of 1086, where it is named *Straburg – burg* meaning a Saxon defended site (Graham and Davies, 1993, 1). The original Saxon *burg* of Trowbridge was located on a slight ridge on the north-east bank of the River Biss, above the crossing which gave rise to its name; ‘‘Trowbridge simply means tree-bridge, a bridge made of timber’’ (Rogers, 1984, 12). Later, in the 12th century, Trowbridge had an Anarchy Period Castle (AD 1135-53) and updated Saxo-Norman church (Graham and Davies, 1993, 33). It is this church that forms the basis for Mat Charlton’s original question; ‘‘are the large limestone blocks found dotted around the town from the dismantled Saxo-Norman church?’’ This also led to the subsequent question; ‘‘and what other remains exist in the Town Centre from the medieval period?’’ In order to answer these questions, it is first necessary to understand the type of construction materials and methods employed by the Saxons. By understanding this, we can then make an educated assessment of the case for re-used masonry from the church which has been found at various sites around Late-Medieval Trowbridge.

2.1 The Saxo-Norman Church

During excavations of Trowbridge Town Centre by Wessex Archaeology (1977, 1986-88), remains of a stone built church were uncovered. A large part of the church was excavated during the initial dig of 1977 which unearthed foundations for the north, east and south walls of the nave and part of the chancel (Graham and Davies, 1993, 36). During the excavation of the internal layers of the nave, a *terminus post quem* (the limit after which construction is not possible based on dating evidence) for the initial construction phase was provided by a fragment of 10th century pottery. It is therefore suggested that, the latest the church could have been built was the mid-10th century AD (*ibid.*, 33). The Church remains consisted of Cornbrash rubble, forming the foundations, with Oolitic Limestone blocks and Ashlar comprising of both square and rectangular cuts forming the walls (Figure 2). Graham and Davies report that the face of the church walls were constructed of cut and faced limestone blocks over rougher masonry with a rubble core typical of this type of construction (Graham and Davies, 1993, 36). Most significant to this report; early 16th century ‘‘robber trenches’’ were also excavated around the church foundations, accompanied by a demolition layer (*Ibid*. 36, 75). This would imply that around the time of the Dissolution of the Monasteries (1536-41), the church was demolished and the Limestone blocks and ashlar pieces were robbed from the site. This was common practice during that period and often the robbed stone would be re-used in high status buildings (Johnson, 2010, 110-1), this is a subject we shall return to later on in this report (Section 3).

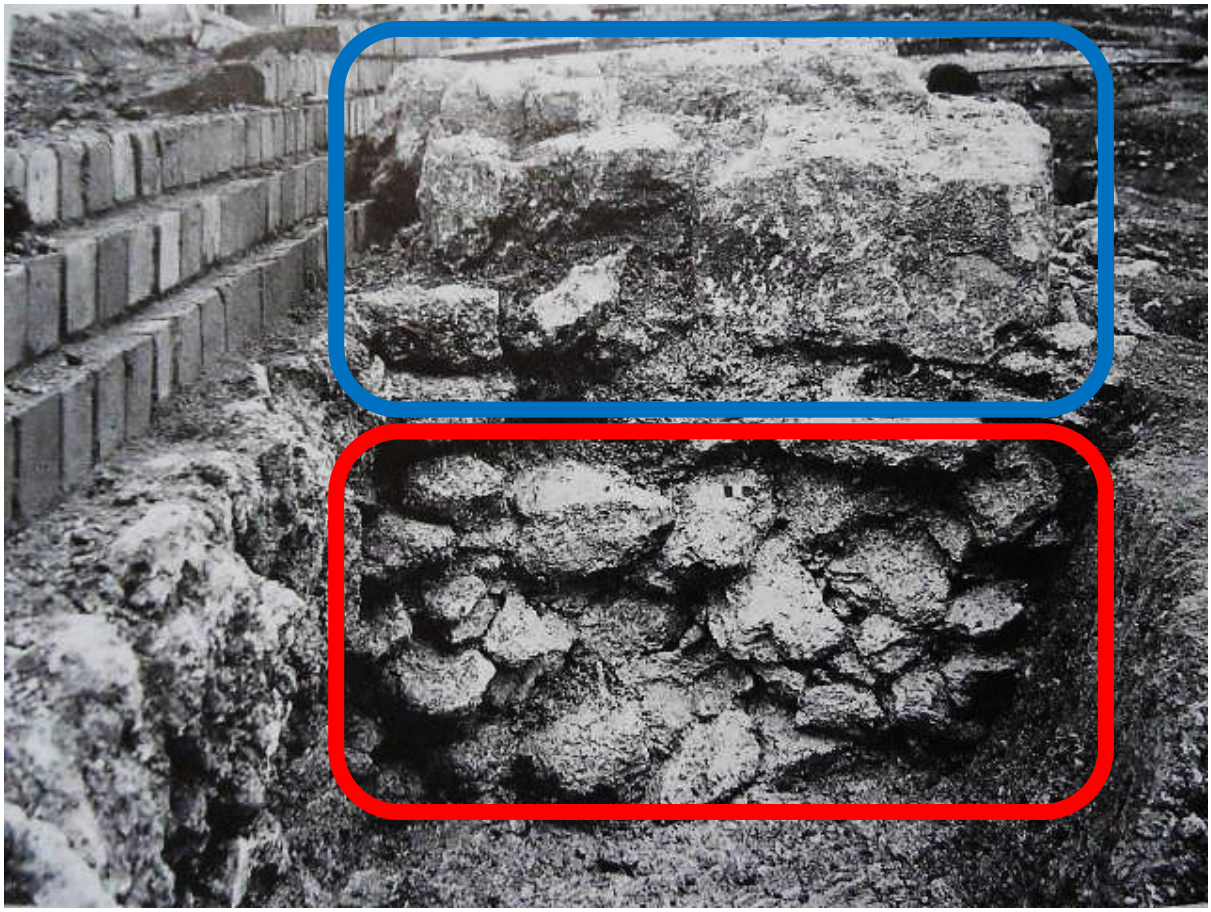

Figure 2 the west wall of the Saxo-Norman church showing the Limestone blocks (blue) atop the Cornbrash rubble (red)
(Graham and Davies, 1993, 38)

3 Evidence for the Re-use of Saxo-Norman Oolitic Limestone Blocks and Ashlar around Trowbridge

Often, the only stone constructions built by the Anglo-Saxons (655–1066) were their churches and associated high status manorial or monastic buildings (Jope, 1964, 91). The large majority of Anglo-Saxon buildings were therefore built of timber or cob (Smith and Yates, 1992, 539) consequently; this type of building only exists archaeologically in excavations and contemporary documents. This is evidenced in Trowbridge by the archaeological excavations undertaken by Wessex Archaeology in 1977 and again between 1986 and 1988 when they uncovered the remains of a Saxon church and associated stone buildings of "unknown use" (Graham and Davies, 1993, 57). The archaeological evidence suggests that the Saxo-Norman church was demolished during the first half of the 16th century, a date provided by pottery within the demolition layer of the church (*Ibid*. 75). The demolition layer contained "clay fragments, limestone and brash rubble and large quantities of stone tile." Clearly, the Limestone and Cornbrash rubble had been removed from the site, further evidenced by the uncovering of robber trenches dug in the early 16th century to remove the pre-cut stone. The date of which coincides well with the Dissolution of the Monasteries, between 1536 and 1541, when much of Catholic England was destroyed and the spoils used to build houses in the new style – i.e. no longer employing an open hall with central hearth, but rather a floored over hall with a chimney (Johnson, 2010, 110-1). Johnson suggests many of these new buildings were built "literally as well as metaphorically, on the ruins of the old religious order, in that they re-used monastic stone in their fabric" (*Ibid*.).

This is not the first time stone was re-used in later constructions. Indeed, many of the Anglo-Saxon churches were built re-using robbed Roman stone for its "social symbolism" (*ibid*. 21). Although it is easy to assume the re-use of stone was to mitigate expense, it would seem it was done in order to tie new Roman Catholic churches with the Roman ruins left when they left England around AD410. Thus installing a direct connection back to the "spirit of Rome" and inferring religious "*kudos*" (Eaton, 2001).

With the above in mind, can we see evidence for the re-use of stone from the Saxo-Norman church and associated buildings around medieval Trowbridge? A hypothesis first suggested by Mat Charlton (*pers comm.* 2013) and the basis of this report. Dotted around the old walls of Trowbridge town centre, one can see various large square and rectangular Limestone blocks that look out of place

compared to the Georgian (1714–1837) and later buildings that use local Bath stone (Figure 3). Do these limestone blocks come from the demolished Saxo-Norman church? I would suggest almost certainly. Their size and style are consistent with the blocks unearthed by the archaeological excavations of Wessex Archaeology (*op. cit*.) and are in stark contrast to the yellow softer local sand stone used in later construction of the town's grand Georgian buildings.

Figure 3 An example of re-used Oolitic Limestone (most likely from Dorset) in the walls around Trowbridge - above left - and the yellower local sand stone used in later Georgian fronts - above right
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Figure 4 St James Church shows a combination of re-used Limestone (top right) and darker softer local stone (left)
©Mat Charlton 2013

One can also find ‘‘re-used’’ stone within various buildings around Trowbridge, again in conjunction with the darker local stone (Figure 5). Often the solid Limestone is used to form quoins (large corner stones used to strengthen a structure) as we can see in the images below. The medieval frontage of 63 Fore Street was also clad by the Georgians around 1789 using the softer local stone (Figure 19) which contrasts against the medieval stone used in the interior of the building (Figure 6).

Figure 5 Re-used Limestone for quoins amongst the darker local stone (63 Fore Street)

Figure 6 Georgian stone cladding c1789, used to re-front the medieval core of 63 Fore Street

If we now return to Graham and Davies' report, we can see they mention the church was most probably converted into a secular (non-religious) building during the 12th century (Graham and Davies, 1993, 70). They suggest this because excavation showed that the west wall was demolished and re-built to "incorporate a fireplace and chimney, which stood proud of the original face of the wall, central to the west end of the building" together with the sealing over of the graveyard, by

clay, during the construction of the Norman castle c.1139. However, it must be noted that it is not uncommon for fireplaces to be inserted in the west walls of churches during this period such as - St Mary's Church in Rushden; St Martin's Church in Wareham; All Saints Church in Boughton Aluph and Gorefields in Stoke Goldington, Buckinghamshire which also contained re-used Roman stone - to name a few (Wilson and Moorhouse, 1971, 161). The conversion of the Anglo-Saxon church into a Norman secular building is therefore inconclusive, because it is not uncommon for the Normans to use Saxon churches within their castle sites (Pounds, 1990). With the church being demolished around the time of the Dissolution, it would also hint to the church still being a place of religious worship rather than one of secular use.

This discussion aside, the significance of the fireplace cannot be ignored. Indeed, it is to Trowbridge's various medieval fireplaces that the report now focusses on. 63 Fore Street has three grand limestone and brick fireplaces. Two are adjacent in the larger front room facing the main street (Figure 7); the other is in an office to the left of the main room (Figure 8). If we suppose the three fireplaces are coeval (having the same date) with each other, we may ask where they originally came from - as stylistically they do not match with the building. The timber famed of the building has been dendrochronologically (tree-ring) dated to AD1513 (see Section 4.3) by Dr Andy Moir (Moir, 2013b, 1). The fireplaces however, would appear to stylistically pre-date 1513 by at least two centuries. Therefore, it can be assumed that the fireplaces are re-used. As we have already seen above, the archaeological investigations of the Saxo-Norman complex in Trowbridge centre yielded evidence of Anarchy Period (1139-1200) fireplaces (Graham and Davies, 1993, 70). I would therefore suggest it is possible the high status fireplaces of 63 Fore Street were originally from the Saxo-Norman complex. If the main fireplace in 63 Fore Street is examined closely, it is possible to see the remains of deer painted in brown upon a black background (Figure 9). The Normans are well known for their love of hunting deer and the present state of the paintings may suggest they are indeed original Norman depictions. Also, the fireplaces look "out of place" and their surroundings made to accommodate the pre-cut and shaped stone rather than the fireplace being made to fit into an existing hole. This also hints at the stone being re-used. Another example of a stone fireplace, this time with oak mantel, can be found in the cellar/undercroft of number 7 Fore Street, Trowbridge (Figure 10). It is unclear the original use of this fine undercroft (a brick lined and vaulted storage room under a building), suffice it to say that it must have been of high status based on the materials used. This includes a fine cut stone lintel above the entrance to the undercroft (Figure 11) and a fine cobbled floor.

Figure 7 two stone fireplaces within the main shop area of 63 Fore Street, Trowbridge

Figure 8 a stone fireplace in a ground floor office off the main shop area in 63 Fore Street, Trowbridge

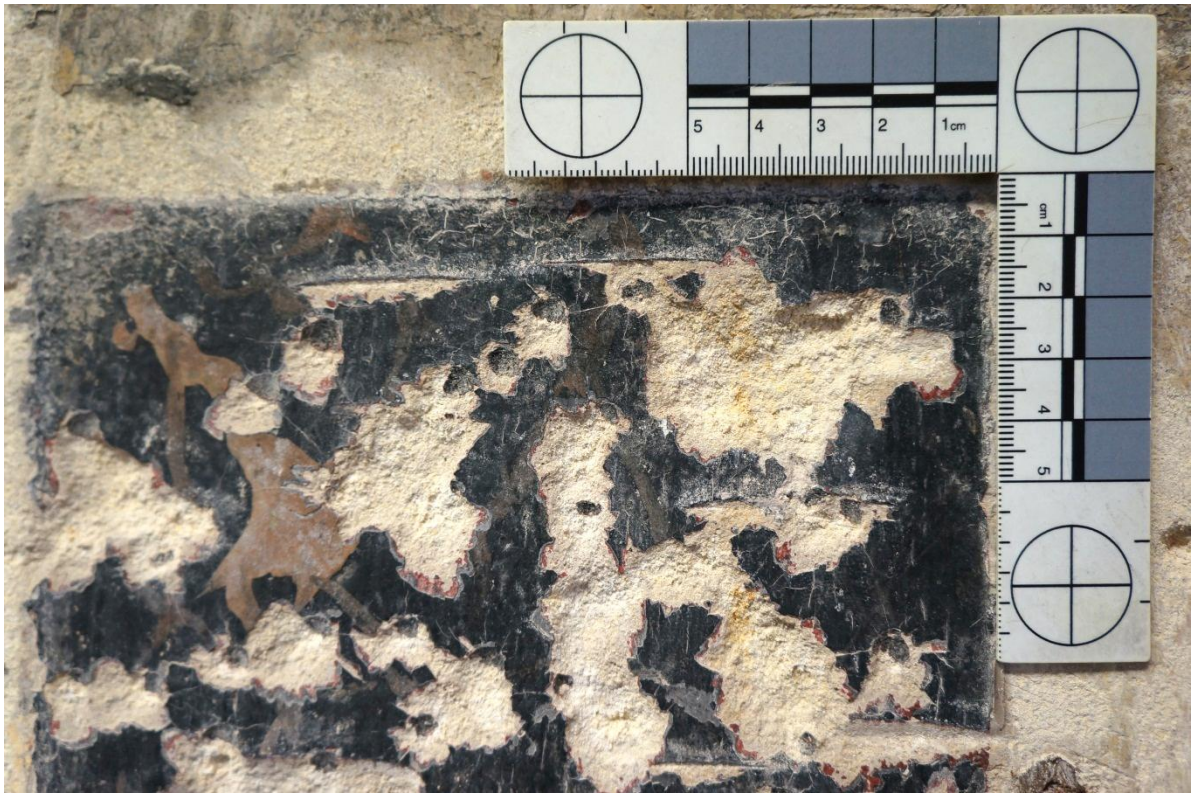


Figure 9 a photograph taken of the top right mantel of the main fireplace of 63 Fore Street. To the right of the image one can still make out a painting of a deer

Figure 10 a re-used stone fireplace with an oak mantel in the undercroft of 7 Fore Street, Trowbridge

Figure 11 a well-shaped and re-used stone lintel above the entrance to the undercroft of 7 Fore Street, Trowbridge

3.1 Conclusion for the re-use of Saxo-Norman stone

The aim of this section was to address Mat Charlton's original hypothesis for the origins of various well quarried Oolitic Limestone blocks found around medieval Trowbridge. The above section has provided much evidence for the re-use of Oolitic Limestone blocks from the Saxo-Norman complex that once stood in the heart of Trowbridge town centre. I would therefore posit that the stone blocks to which Mr Charlton originally referred, are indeed from the former Saxo-Norman complex excavated by Wessex Archaeology in 1977 and 1986-88 (Graham and Davies, 1993). It remains unclear as to the origin of the fireplaces found in both 63 and 7 Fore Street, but it is not hard to imagine that they too came from the same complex, because they are both stylistically consistent and formed from Oolitic Limestone which is not naturally occurring in this part of Wiltshire.

4 Evidence for Late-Medieval Timber Framed Structures around Trowbridge

Much of Medieval Trowbridge has already been recorded by Ken and Norman Rogers, this report then aims to build upon their study and add the science of dendrochronology to refine the dates of some of the buildings they have already identified (Rogers, 1984, Rogers, 1994).

4.1 Dendrochronology

The basis of dendrochronological (or tree-ring) dating is that trees of the same species growing during similar time frames in localised habitats will produce similar growth-ring patterns (Baillie, 1995, 17). These patterns of varying growth-ring width are unique to the period of growth, similar to a human finger print (*Ibid*.). Once measured, the rings can be matched against a ‘‘master chronological sequence’’ of known tree-ring dates with 95% certainty (Millard, 2002, 137). This ever growing ‘master chronological sequence’ makes oak dendrochronology in particular a ‘‘dynamic and constantly evolving discipline’’ (Haneca, et al., 2009, 1). Each year a tree gains another ring as it grows by adding a layer of cells, the thickness of this ring depends on the amount of growth in that year. These cells grow in the cambium layer directly under the bark (Smith, 1985, 19) (Figure 12). Thus, the older rings are located toward the heart of the tree and the younger rings in the sapwood near the bark. The heartwood is recognisable as being much darker than the sapwood (Figure 12) because it is, essentially, dead wood and much harder than the softer sapwood (Grenville, 1999, 10, Wilson and White, 1986, 13). English oak will take approximately 15-50 years to turn from sapwood to heartwood (Hillam, et al., 1987). Sapwood tends to remain at a constant width as the tree grows whilst the heartwood continues expanding in size as the sapwood dies (Wilson and White, 1986, 14). New growth takes the form of widely spaced cells formed in the spring and closer smaller cells during the summer (Taylor, 2005, online). During years of ideal growing conditions trees will produce a constant sized ring whereas in a year with poor conditions, such as too much rain, wider growth rings will form suggesting that ‘‘European oaks prefer mild and wet winter months’’ (Haneca, et al., 2009, 3).

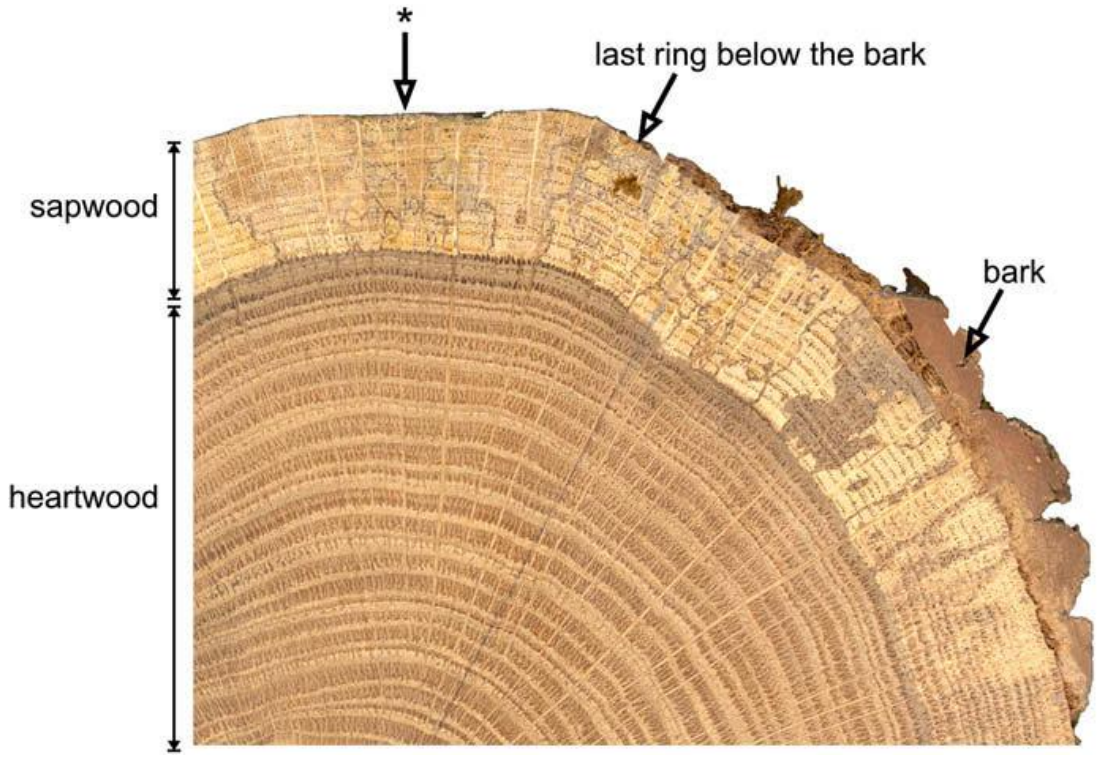


Figure 12 The anatomy of an oak tree and its ring pattern
(Haneca, et al., 2009, 4)

Trees growing in similar regions are likely to display the same general chronological growth pattern which tends not to reflect any localised ecological variations but, rather, the climatic variations (Miles, 2005, online, Taylor, 2005, online). Thus, over the life of a tree various sized rings will create a "fingerprint" unique to that tree but common to all other trees in that area - subject to the same weather patterns (Miles, 2003, 228). As weather patterns vary across Europe it is becoming possible with an ever increasing master chronology to provenance the timber and shed light on its source and subsequent trade (Haneca, et al., 2005, 269, Sass-Klaassen, et al., 2008, 97). When a tree is felled, or dies, the rings no longer grow; the final year of growth recorded using the outermost ring, directly under the bark (Miles, 2003, 220). In the United Kingdom, oak (*Quercus robur* and *Quercus petraea*) provide the best examples for dating, though elm and beech can also be dated (Baillie, 1982, 45, Grenville, 1999, 9, Miles, 2003, 221). This is of particular use to medievalists as the majority of timber framed structures were made from oak (Miles, 2003, 221). Oak wood is valued for its mechanical properties and its durable heartwood. It has been widely used since prehistoric times and is also, therefore, the leading species in historic and pre-historic tree-ring research in Europe (Haneca, et al., 2009, 1). Counting the rings will give the age of the tree but unless the rings can then be matched against a known chronology, they cannot provide a method of dating the tree. It should also be noted that tree rings can only provide a date for the timber and not the artefact, building or

object (Haneca, et al., 2009, 8). Oak tends to be used "green" - that is to say freshly felled - as is it still soft and easier to fashion into desired lengths and shapes for the crafting of joints (Biddle, 2000, 390, Salzman, 1952, 235). Therefore; the construction phase can be dated to within several years following the felling date, providing rings from the sapwood survive (Miles, 2003, 221). Therefore, if a felling date is given as 1438 (as below) the construction date will generally be given as 1439. For a more in-depth discussion on dendrochronology regarding Trowbridge see Moir's reports (Moir, 2013a, Moir, 2013b).

4.2 9 Church Street, Trowbridge

Little remains of the original timber frame structure at 9 Church Street, however, it has recently been dendrochronologically dated by Dr Andy Moir to 1438 with a probable *terminus post quem* for construction of 1439 (Moir, 2013a). Much of what does remain has been either reconstructed or hidden by later renovations (Figure 13). However, the few original elements that remain *in situ* are enough for the seasoned buildings archaeologist to suggest the initial floor plan.

Figure 13 an external photograph of the open hall house at 9 Church Street. The solar and parlour on the left, open hall in centre with cross-passage to its right and the reconstructed service end with jetty on the right

As can be seen in the figure above, the building runs parallel to the street. This is uncommon within a town centre in the middle ages. Plots, of between a quarter acre and half an acre, were fairly commonplace in most English towns before the Black Death, reducing in size by 1417 (Dyer, 1989, 189, Keene, 1985, 549). With a reduction in size a rise in price often follows. The traditional view, put forward by Pantin and recently challenged by Pearson, is that this forced new urban buildings to be built at right-angles to the street with a narrow street frontage that widened toward the rear of the property and often forming an inverted 'L' shape (Pearson, 2009, 10). Therefore, with 9 Church Street being built parallel to the road would infer the owner enjoyed wealth and status. This is reflected well within the structures carpentry. The central beam, that would have been visible in the open hall, exhibits a well-made gothic arch forming at the upper collar with the tie beam removed; thus, producing a larger space within the hall with the arch braces forming an elegant gothic arch (Figure 14). This is a common feature in buildings of the same date and status in Hampshire, the adjacent county south-east of Wiltshire (Haddlesey, 2010).

Figure 14 the arch-braced and cranked collar above the once open hall at 9 Church Street

As can be seen above, the collared rafter roof has curved wind braces and inline purlins and is an early example of such, with most instances occurring in the latter half of the 15th century (Haddlesey, 2010). The left hand mortice joint connecting the arched brace to the collar has failed and has been shorn up with a wrought iron cartwheel tyre stave. This type of repair is not common place on failed timber joints until the 16th century at the earliest (Hillman-Crouch, 1999, 44). Therefore, it can be implied that the original open hall structure was intact until at least the 16th century, a time when many open halls were converted into closed hall houses with a floor above and a brick chimney. A practice that would alter the structural integrity of any converted building. The open hall was a hugely important aspect of late medieval society, forming the central space within a house where

social interactions took place around an open fire (Johnson, 1993, 55-8, Quiney, 1999, 28). The open hall transcended the class divide, being the focus of the majority of houses from the landed gentry to the landless peasant. It dominated plan forms from the Saxon period through to the early 16th century (Roberts, 2003, 126). Despite the fact that the hall was ubiquitous, it did vary regionally due to "uneven socio-economic development" although its underlying meanings were always rooted within the overall structure (Harris, 1978, 31). The hall was also present in all forms of construction and although plan forms varied regionally - the hall was always a constant (Harris, 1978, 31, Lewis, et al., 1988, 17). Evidence of a later inserted – and now removed – chimney can be seen in the image below (Figure 15). This helps explain away the slight change in roof height in this area visible in Figure 13. The chimney now sits on the rear wall of the hall (Figure 16) rather than in the ridge (Figure 15). The image also shows the jetty formed part of the lower shop front; this has now been restored to form an open jetty (Figure 13).

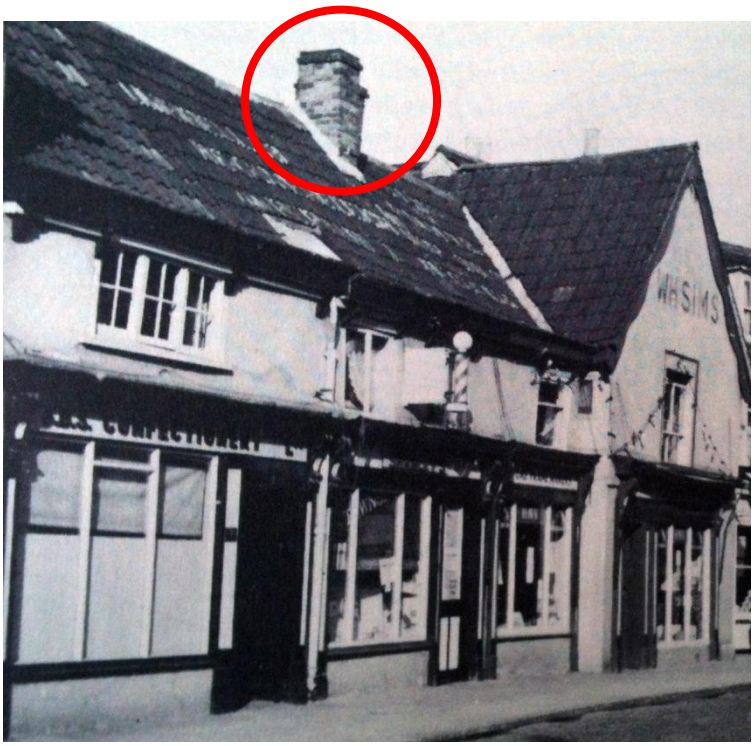


Figure 15 a c.1930s photograph of 9 Church Street with an inserted (and now removed) brick chimney (Rogers, 1984, 24)

The rear wing that runs at right angles to the sweet shop in the left of Figure 15 is also timber-framed, but its raised ridge line and carpentry suggests a later date than the 1439 front wing (Figure

16). Little of the rear wing is visible but I would suggest a date towards the end of the 15th or early 16th century based on style. The rear of the jettied wing was also extended sometime later; however, it is not possible to date this extension.

Figure 16 the rear of 9 Church Street showing a chimney on the rear wall of the hall and the later added wing on the right of the picture

During the survey soot and fatty crystalline deposits were recorded above the area of the proposed open hall (Figure 17). Finding soot in the roof of a suspected hall house is generally a sure sign that originally the house had an open hall prior to the start of the 16th century. However, it is not an indicator as to the exact location of the open fire because smoke dissipates freely, whereas, the heavier fatty deposits tend to rise straight up giving a much better estimate as to the location of the original hearth (Crook, 2006). The crystalline deposits are an outcome of cooking meat on the open hearth and are a result of fat rising with the smoke and depositing on the roof structure. The greatest concentration of which, occurred on the left hand side of the hall as you look at it from the street. This would indicate the hearth was also on this side of the hall and, therefore, suggests the high end –i.e. the side the homeowner sat - was also to the left of the hall. This too is a sure indicator that the parlour and solar were on the left of the hall and the service end towards the far right of the hall.

Figure 17 Evidence of heavy sooting and fatty crystalline deposits within the roof space above the hall of 9 Church Street

4.2.1 Summary

There can be little doubt, based on the evidence above, that 9 Church Street was indeed and open hall constructed in 1439. Its present structure would therefore indicate the existence of at least two timber structures – the main hall house and the left rear wing. It has not been possible to assess the original structure of the right hand rear wing, but if it is of medieval origin, it too would have been timber-framed originally. However, this only remains speculation at this point. A full selection of all the photographs taken of 9 Church Street can be viewed at - http://www.medievalarchitecture.net/images/MedievalTrowbridge/9ChurchStTrowbridgeWebpage/index.htm

4.3 63 Fore Street, Trowbridge

63 Fore Street is another late medieval timber-framed building identified by Ken Rogers in his book on Trowbridge (Rogers, 1984, 35). He writes ‘‘there are a number of timber framed houses in Trowbridge which have been re fronted in a later style as previous generations wanted up to date dwellings and if there was not sufficiently money to rebuild completely, then a new front kept up

appearances. One of these buildings is no 63 Fore street a medieval building with a 1789 front" (*Ibid.*). As Rogers suggests, the front of the building has been stone clad during the Georgian period in the local sandstone (Figure 18 and Figure 19).

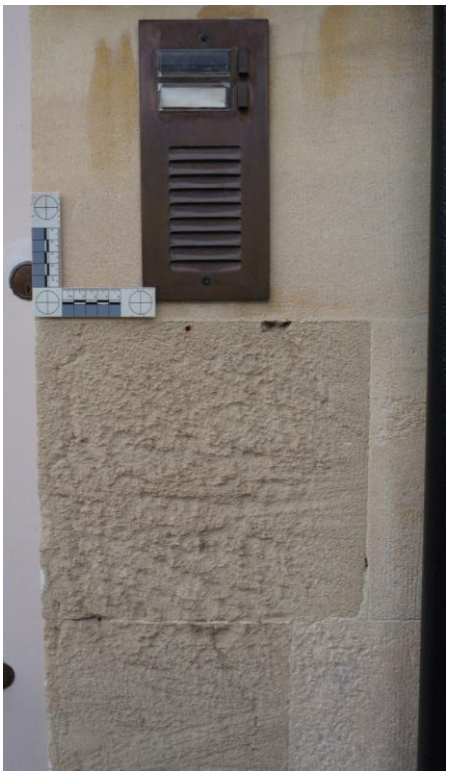


Figure 18 the front of 63 Fore Street showing the 1789 stone cladding

Figure 19 the 1789 stone clad front of 63 Fore Street, Trowbridge. This Georgian facade masks the original timber-framed structure and uses a raised parapet to obscure the two roof gables

The medieval timber frame which survives in the rear of the building, and its roof, has recently been dendrochronologically dated by Dr Andy Moir to probable date for construction of 1513 (Moir, 2013a). This building has been much altered by the Georgians and its original floor plan is not obvious to the casual observer. However, during recent investigations by Moir (*opp cit*.) and the author; the building has slowly released some of its secrets regarding its original layout. One of the most perplexing was the re-used timbers in the roof structure above the main body of the shop. The tree rings are consistent with those of the rear range and therefore, probably also date to 1513 (*ibid*.). I believe the timbers in the two gabled roofs are from the original roofs that would have been much lower –i.e. the same height as the rear range when they were first built. They would have been raised by the Georgians to create a grander frontage and typical Georgian Town House design (Breckon, et al., 2001, 33) with a raised parapet obscuring the two roof gables (Figure 19). Often too, the pitch of the roof was lowered to transform an attic space into a usable room (Smith and Yates, 1992, 562) as appears to be the case here (Figure 21). One of the main indicators the roof has re-used timbers are the empty mortise joints and crudely cut replacement mortise's bellow them to house the purlins. I would suggest the mortises that now house the purlins are a later addition because they have been cut into seasoned oak rather than "green" oak as the ones above would have been and highlighted in the images below.

Figure 20 re-used roof timbers above 63 Fore Street with empty mortises highlighted

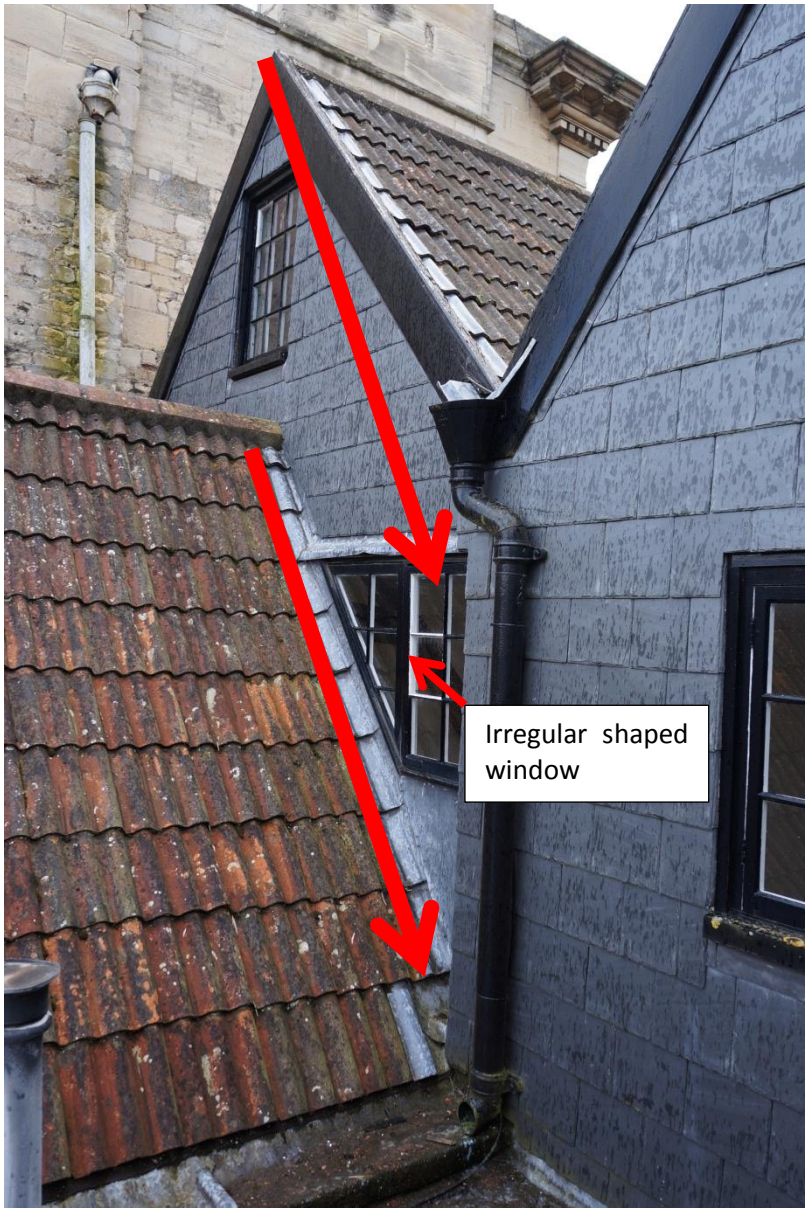


Figure 21 this image illustrates the difference in roof heights and pitch between the two gables which were altered by the Georgians and the original height and pitch of the medieval roof above the rear range of 63 Fore Street

Another indicator that the roof height has been altered is the bespoke Georgian window that has been designed to light the passage way they inserted into the building (Figure 21). This is of an irregular shape, yet well-made and clearly made to fit the building during remodelling, rather than an original feature. The wall between the rear range and the main shop are of a single thickness which would indicate they all belong to the same structure and are therefore, coeval.

The first floor of the rear range is remarkable in its completeness and originality. It boasts an almost complete and fully exposed 2 bay timber structure (Figure 22).

Figure 22 the rear 2 bay range of 63 Fore Street with its exposed timber frame with queen struts (in red) at the rear of the room and a central tie beam supported by gun-stock jowls

The room pictured above consists of two bays; unusually the rear bay (Figure 22) has queen posts between the tie and collar, whereas the front bay has a king post between tie and collar (Figure 24). The central tie beam is slightly cranked, as is the collar above it. The jowl in central post shown in Figure 22 has been modified, but it is unclear why. However, the central tie beam did show evidence of empty mortises which would imply the two bays were divided into two separate bays sometime after construction (Figure 23). The reason why I suggest later, rather than at the time of construction, is because the mortises are very shallow and look to have been cut into seasoned wood rather than green wood which would have been softer and easier to cut.

Figure 23 evidence of shallow mortises cut sometime after the initial construction to house a partition to separate the open two bays into two rooms

Figure 24 the front side of the rear range with its king post highlighted in red in the upper part of the image with evidence of the use of rush lights or "dip lights" to illuminate the room at mid rail height

There was no conclusive proof of any sooting, however, burning was evident as a result of rush lights (or ‘‘tallow dips’’) being used at mid-rail level around the room (Figure 24). The use of such lights often leaves a distinctive ‘‘tear drop’’ burn pattern in the wood. It is made by impregnating a rush with tallow to make a candle. The tallow was derived from fully melting sheep and cow fat and then skimming off the top crust and sieving out any impurities before dipping in the rush wick. This type of candle was known as a ‘‘tallow dip’’ (Phillips, 1999, 72). A rush light is fairly simple to make and a common sight in late medieval solar’s. I would therefore conclude that this two bay room was constructed as a solar, lighted by rush lights, and later divided into two separate living areas. What is unclear however is whether this part of 63 Fore Street was built at the same time as the rest of the building? If we go by the tree-ring dates we can see the timbers from the front and rear are consistent and both date to around 1513 (Moir, 2013b). Not only that; all the walls are single thickness suggesting one structure. What makes me question this, is the fact that there appears to be an *in situ* wall post in the room in front of the solar described above (Figure 25).

Figure 25 a corner wall post above the main body of 3 Fore Street suggesting a separate timber frame from that of the coeval solar behind it

This wall post could easily be overlooked as just an anomaly if it were in isolation, but, the existence of another roof construction running at right angles to it (Figure 26) together with remains of a

second wall visible in the solar (Figure 27); would indicate this room has been widened by removing the inner timber-frame. This, I would suggest, happened during the time of the Georgian remodelling c.1789 (Rogers, 1984).

Figure 26 a queen post roof with cranked tie-beam belonging to 62 Fore Street exists at right angles (and therefore parallel to Fore Street) to a wall post of 63 Fore Street

Figure 27 the wattle and daub from the solar wall has been removed to expose the wattle and daub of 62 Fore Street. The timber staves (uprights) belong to the solar

4.3.1 Carpenters marks

Another item of note is the similarity between the carpenters marks found in the Solar (Figure 24 and Figure 28) and those found in the reused timbers in the roof above the main structure (Figure 29). Note – although the actual marks differ, the tools which made them are the same. These are very different to those found on the remaining roof timbers of the adjacent building of 62 Fore Street (Figure 30).

Figure 28 carpenters marks found in the Solar of 63 Fore Street

Figure 29 carpenters marks found in the reused timbers of the main roof of 63 Fore Street

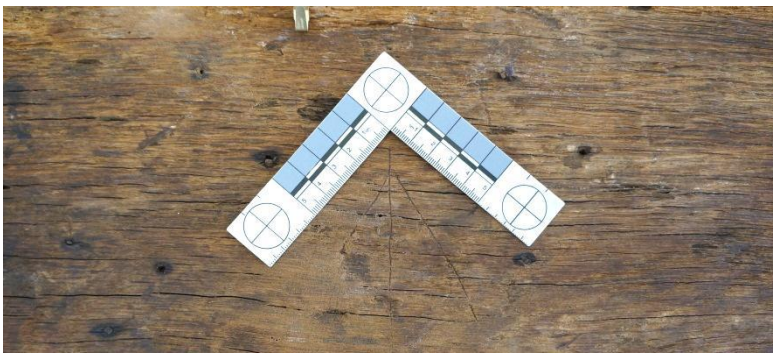
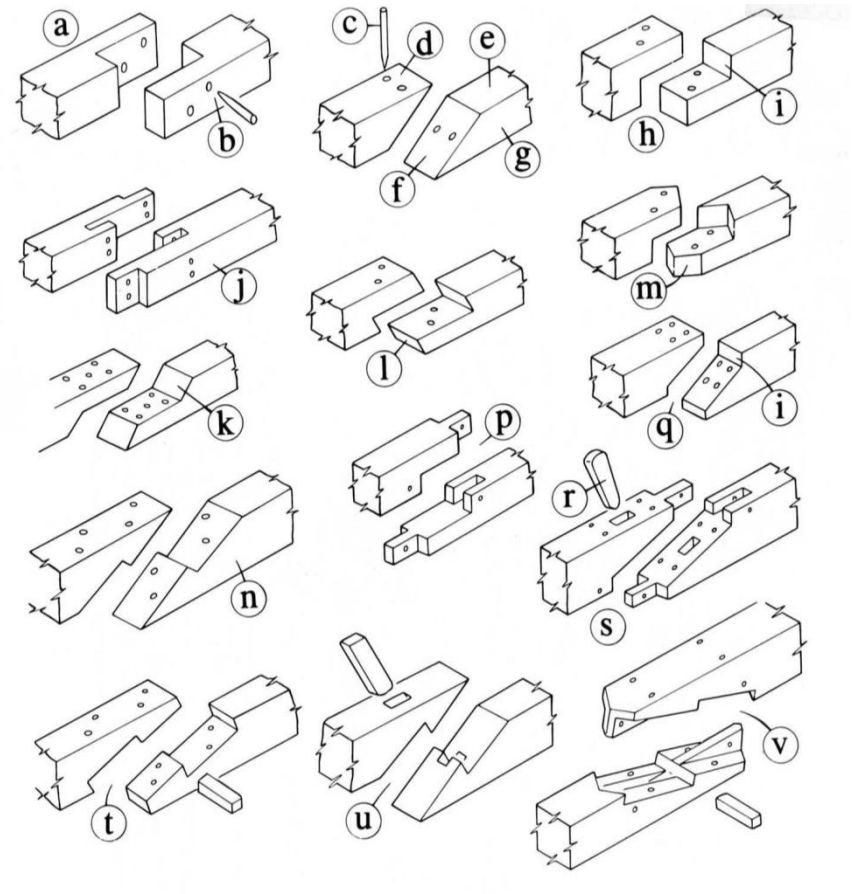


Figure 30 carpenters marks found on the collar of the roof from the adjacent building to 63 Fore Street

The similarity in both tree-ring dates and carpenters marks would suggest that the two parts of 63 Fore Street were either built at the same time by the same master carpenter, or within a couple of years of each other – again by the same master carpenter.

Also worthy of note in the solar is the very unusual scarf joint. I have never come across this joint before and it also seems absent from the reference books. It is similar in essence to a stop-splayed and tabled scarf with key (Figure 31), but in this instance – the scarf joint is face halved rather than splayed (Figure 32).



a) Face-halved scarf b) Side-pegging c) Peg d) Face-pegging e) Face f) Splayed scarf g) Side h) Side-halved i) Vertical butt j) Face-halved and bladed scarf k) Squinted butt inside halved scarf l) Undersquinted butt in halved scarf m) Sallied butt n) Through-splayed and tabled scarf (Trait de Jupiter) p) Side-halved and bridled scarf q) Stop-splayed scarf r) Key s) Stop-splayed scarf with bridled butts and face key t) Stop-splayed and tabled scarf with key u) Through-splayed and tabled scarf with face key v) Stop-splayed and tabled scarf with sallied and undersquinted butts, internal tongues and key*

Figure 31 part of an illustrated glossary of common scarf joints from the Council for British Archaeology
(Alcock, et al., 2003, F29)

Figure 32 a previously unseen undersquinted butt in a halved and tabled scarf with key in the Solar of 63 Fore Street

What is remarkable in this scarf is the use of the key, which is a wedge driven into the centre of the joint to force it apart. Traditionally these are only found in splayed scarfs (Figure 31) and then, only prior to the mid-14th century (Haddlesey, 2010). So to find a key in a halved scarf in the early 16th century is indeed worthy of note and further inquiry.

4.4 62 Fore Street

Although very little remains of the timber structure of 62 Fore Street, it is worthy of note because it must have run parallel to Fore Street and not at right angles like 63 Fore Street. As has already been mentioned in this report, shops and houses running parallel to a main street indicate a high level of financial outlay suggesting the owner was of high status and wealth. We have already seen that 9 Church Street also ran parallel to the street which informs us that during the late middle ages, Trowbridge must have enjoyed a high level of wealth and status not often found in smaller towns of the period (Dyer, 1989, 189, Pearson, 2009, 10).

4.4.1 Summary

Clearly then, the timber frame of 63 Fore Street was never connected to the timber frame of 62 Fore Street – although the buildings are now joined by a single wall. The presence of the roof frame and the adjacent wall post would lead to assumption that the front of 63 was built independently of the parlour/solar range at the rear. However, the similarity and consistency of the tree ring dates and carpenters marks make it difficult to propose there was any significant period between their constructions. All the photographs from the survey are available at http://www.medievalarchitecture.net/images/MedievalTrowbridge/63ForeStWebpage/index.htm

We therefore have evidence of at least three separate timber-framed buildings visible in 63 Fore Street, although, only two of them actually are part of that building. The other frame belongs to 62 Fore Street (unfortunately it was not possible to investigate number 62 at this time).

5 Conclusion

This report has provided much evidence for the existence of re-used Saxon and Norman stone within the later medieval buildings of Trowbridge. The stone in question is well cut and formed from quarried Oolitic Limestone. This type of Limestone is not native to this part of Wiltshire, and therefore, must have been imported. The cost of choosing such stone over the local Bath stone implies a great investment and status. The later Georgian buildings, both original and remodelled and clad medieval buildings, all employ local Bath sandstone in their construction. This stone is far easier to shape to ones needs and relatively easy to source locally. This then lends credence to the hypothesis that the random limestone blocks and ashlar blocks where taken and re-used from the Saxo-Norman complex demolished in the early 16th century.

With regard the late medieval timber framed structures of Trowbridge – 9 Church Street and 63 Fore Street; we can now provide solid dating evidence. 9 Church Street dates to 1439 and instead of being one structure, it comprises of at least two – the Front Range is an open hall house parallel to the street; whereas, the rear range on the buildings left is a later extension of unknown date. 63 Fore Street dates to around 1513 and again comprises of at least two separate structures – remains of the original roof timbers in the main building and a two bay two story parlour/solar in the rear. Although all the timbers of 63 Fore Street, the evidence outlined in Section 4.3, would suggest they were built as two separate structures – probably by the same master carpenter around the same time, with the solar following the construction of the main building. During the investigation of 63 Fore Street, a fifth timber frame was discovered belonging to 62 Fore Street. Although this frame has not been tree-ring dated, stylistically it is very similar to 63 Fore Street – I would therefore suggest a construction date of the early part of the 16th century is most likely.

I would like to remind the reader that the above report is based on evidence, research and experience and is therefore not meant to serve as a definitive answer. Rather this report aims to interpret the data and put forward ideas for discussion and analysis with the community.

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