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THE HISTORY OF BLACK MILL, ST MARTIN'S HILL, CANTERBURY

TANIA WILSON

It is thought that some 10,000 windmills existed throughout England during the post-medieval period (Bonwick n.d.) and during the early nineteenth century windmills in Kent were in their heyday. In 1933 William Coles Finch published a historical survey of the windmills and watermills of Kent and the cartographic evidence he examined showed that the number of windmills in the county increased from ninety-five in 1769 to 239 by 1843. This rise in numbers reflected the prosperity of local agricultural production during this period and Coles Finch noted that between 1819 and 1843 'the milling industry of Kent was at the peak of its utility' (1933, 137).

Canterbury, and its surrounding area, was no exception to this picture. During the eighteenth and nineteenth centuries windmills were to be found in the countryside around the city at Adisham (Bekesbourne Mill), Barham (Black Mill and Breach Downs Mill), Blean (Old Mill) and Bridge. Within the city and its immediate outskirts some seven windmills were active at different points throughout this period (Coles Finch 1933, 177-8 & 216-7). A post mill¹ was situated on the Dane John mound. A tower mill² was constructed on St Martin's Hill (known as St Martin's Mill or Querns Mill) and smock mills³ were located on St Martin's Hill (Black Mill), St Thomas' Hill, at Harbledown (Black Mill), in the St Lawrence area and within the Franciscan Gardens in the centre of Canterbury.

Canterbury boasts a rich milling heritage. Domesday records some thirteen mills situated within the hundred of Canterbury, and five mills are recorded in the adjacent borough of St Martin's (Open Domesday n.d.). However it is likely that these represent water and animal-powered mills, as there is no record of wind-powered mills until the twelfth century (Coles Finch 1933, 45). In Canterbury, watermills were situated along the two branches of the River Stour and, by the time of King Stephen, some eleven watermills were present in or around the City (Hasted 1800, 143). In 1800 five of these mills were still in operation (*ibid*, 143). Abbott's Mill survived until 1933 and Barton Mill ceased milling as recently as 2004 (The Mills Archive 2012a).

In contrast to the watermills, documentary evidence relating to the windmills of the area is sparse. The earliest reference to a windmill within Canterbury records a mill located at Little Foxmould in the Ridingate area, which was 'granted to the Hospital of Eastbridge by the Prioress and Nuns of the Church of St Sepulchre' at around 1200 (West 1973, 17). Documentary evidence also suggests that windmills were located in the grounds of St Lawrence Hospital and at Burgate around this time (Kealey 1987, 219).⁴ However it is not until the eighteenth and nineteenth centuries that further references to windmills are found.

Construction dates for the majority of the post-medieval windmills in Canterbury are unknown. The post mill situated in the Dane John dates to at least 1731, when a notice for its sale was placed in the *Kentish Post* (Coles Finch 1933, 178). The first series Ordnance Survey (OS) map of 1816 (*A vision of Britain through time 2009*) depicts for the first time Harbledown Black Mill, St Lawrence Mill and St Martin's Black Mill. Records indicate that St Martin's tower mill was constructed a year later in 1817 (Coles Finch 1933, 177). There are apparently no records relating to the mills on St Thomas' Hill or in the Franciscan Gardens, and they are not depicted on maps of the time. However they are depicted in views of Canterbury; St Thomas' Hill mill appears in a print dated 1816 and the mill in the Franciscan Gardens in a print dated 1846 (*ibid.*, 178).

By the late nineteenth century the decline of the windmill had already begun. By 1910 the number of standing windmills in the county had dropped to 134, and by 1930 this had dropped to just seventeen active windmills (Coles Finch 1933, 148-9). This sharp decline was essentially a product of two factors; an increase in mechanisation, and a decline in local grain production due to cheaper imports from abroad (Coles Finch 1933, 125). Kent County Council records that there are just fifteen 'complete or substantially solid' windmills in the county today (Kent County Council 2012).

The fate of the windmills in the Canterbury district is not always clearly documented. Hasted, writing in 1800, notes that the Dane John post mill had by this time 'been removed'. The mills at St Thomas' Hill and in the Franciscan Gardens were certainly still in existence in 1850, as they are depicted in David Bogue's *Panorama of Canterbury and its Environs from the Dane John*. St Martin's Black Mill was dismantled in 1868, St Lawrence Mill was destroyed by fire on 15 May 1873 and Harbledown Black Mill was demolished on 9 July 1913 (Coles Finch 1933, 177 & 217). St Martin's tower mill still stands, but ceased working in 1890, and it was converted into a house in 1920 (Coles Finch 1933, 177). In 1958 a proposal for the demolition of the mill was made, but it was saved by a Building Preservation Order (West 1973, 30).

Black Mill. An archaeological excavation of the mill followed in February 2011.

In advance of the redevelopment of the site by Lasserton Limited, a series of archaeological investigations was undertaken to determine the archaeological potential of the land. The investigations began with a geophysical survey (Smalley 2009) followed by evaluation trenching (Lane 2010). Overall these preliminary investigations revealed little of archaeological importance predating the post-medieval period, but the evaluation located the basal remains of St Martin's Black Mill. These remains were situated to the rear of the plot on the ridge of St Martin's Hill overlooking the city, at an elevation of around 47m above Ordnance Datum. Subsequent excavation was undertaken in an area measuring approximately 10m x 10m and revealed the mill base in its entirety (Fig. 1).

Land use prior to the construction of the mill

The earliest deposits encountered at the site were sand and gravel deposits of River Terrace 3 overlying Thanet Sand Formation sand, silt and clay (British Geological Survey 2012). West of the excavation, at 6 Windmill Close, the discovery of a Lower Palaeolithic handaxe is recorded, and this artefact, dating back some 200,000 years, was probably derived from these River Terrace deposits (Roe 1968, 143).

The site lies just south of the A257 St Martin's Hill road which follows the line of the road which connected Roman Canterbury (*Durovernum Cantiacorum*) with the port of Richborough (*Rutupiae*), considered to have been one of the most important routes in Britain during the first and second centuries AD (Margary 1955, route 10, 31). In 1926, during the construction of Windmill Road immediately to the east of the development area, up to thirty-eight vessels were discovered, representing a group of Roman cremation burials (Whiting and Mead 1928, 67-78). In 1952, a further cremation burial was discovered in the rear garden of 9 Littlebourne Road (HER TR15 NE16), c.120m to the east of the development area.

Further groups of cremation burials have been recorded downhill from the site at the former Sessions House, Longport (UAD No. CCUAD 2027) and in the grounds of St Augustine's Abbey (Rady 1988, 127). St Martin's Church, situated c.350m west of the development area, is noted architecturally for retaining elements of masonry considered to be late Roman in origin (*ibid*, 127).

However the results of the evaluation revealed only one feature of possible Roman date. This feature, a pit measuring c.1m in diameter, was situated towards the eastern limit of the development area and produced a single fragment of Roman tile (Lane 2010, 10). A small quantity of residual Roman pottery was also collected from the topsoil.

No evidence of Anglo-Saxon or medieval activity was recorded within the development area, despite the fact that archaeological excavations conducted just to the south of St Martin's Church, revealed evidence of occupation dated to *c.*750 and documentary evidence suggests that settlement of this area close to the church continued until the late Anglo-Saxon period (Rady 1988, 124). The same excavations indicated that, by the thirteenth century, a series of timber buildings had begun to develop along the road (*ibid.*, 124).

Within the development area the Roman feature was sealed by an extensive subsoil deposit. This deposit was in turn cut by a series of post-medieval quarries (Lane 2010). Exploiting the sand and gravel resources, these quarries were identified just to the south of St Martin's Hill road and immediately to the west of the excavated area. The quarries were backfilled and subsequently sealed by another deposit of subsoil, perhaps indicating that the area was put to arable use for the period prior to the construction of the mill.

The mill

The earliest feature, representing initial groundworks associated with the construction of the mill, was a substantial trench measuring 0.95m wide and 1m deep. The trench had a flattened 'V'-shaped profile, the base of which was filled with a deposit of loose gravel and sand to a depth of 0.4m. Aligned north-west to south-east the trench emerged from the east side of the mill and continued for 10m towards the eastern slope of the ridge and beyond the limit of excavation (**Fig. 2**).

Following the infilling of this trench, a large open area, sub-octagonal in shape and measuring *c.*7.4m across was excavated. The cut had vertical sides with a flat base and survived to a depth of around 1.3m below the present ground surface. Around the edges, on the base of the cut, a thin layer of tar had been deposited which served as a surface for the brick walls of the mill base.

The octagonal walls (**Fig. 2**) were constructed of red unfrosted brick, bonded with a grey speckled mortar. They were regularly coursed in a rough English bond and survived to a height of 0.95m. Internally, at the junction of each wall and bonded with the walls, was a series of buttresses (**Plate I**). Within the east wall, at the base, a deliberate gap was left in the brickwork which corresponded with the gravel-filled trench. The brick mill base had an external width of 6.5m.

Following the erection of the brick mill base, the construction cut to the exterior of the mill was backfilled. Pottery recovered from the backfill has been dated to the late eighteenth to early nineteenth century and includes a complete salt-glazed English stoneware ink bottle (Luke Barber, *pers. comm.*).

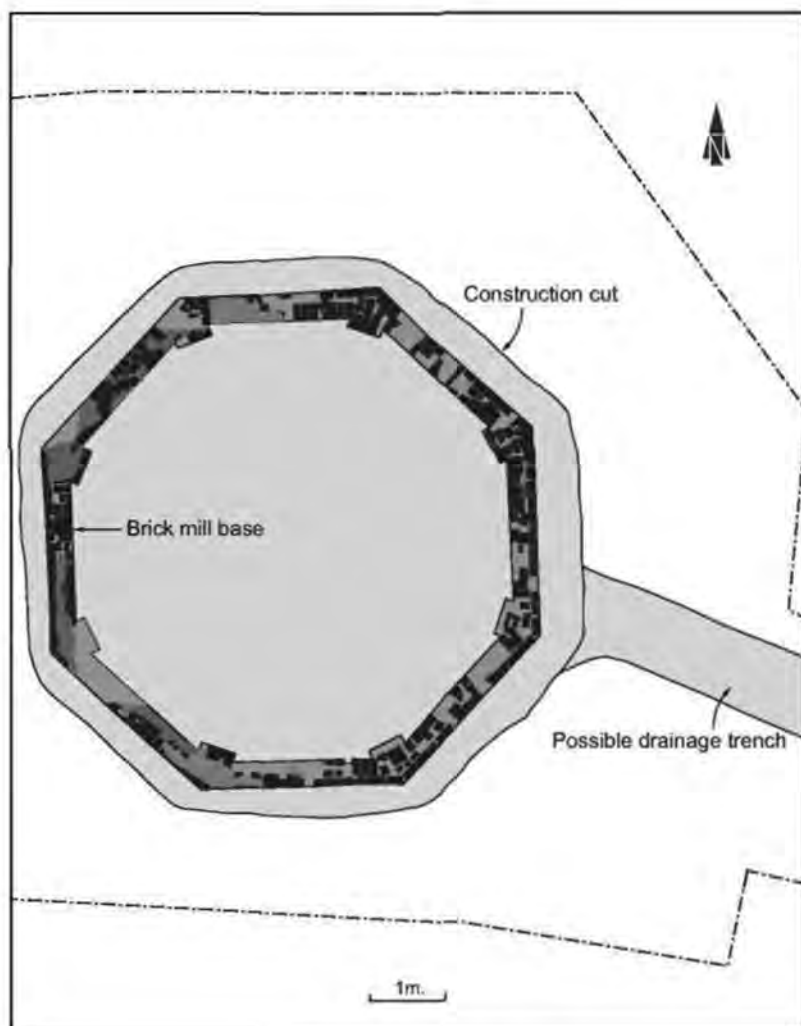


Fig. 2 Plan of mill remains

Within the mill a series of beam-slots was recorded cutting directly into the natural geology exposed in the base of the construction cut. The beam-slots were located immediately adjacent to, and running parallel with, the walls and buttresses. Measuring *c.* 0.25m in width, the beam-slots contained *in situ* fragmentary timber remains. The timber was impregnated with tar which appears to have been a factor in its preservation. Disturbance to



The remains of the mill base

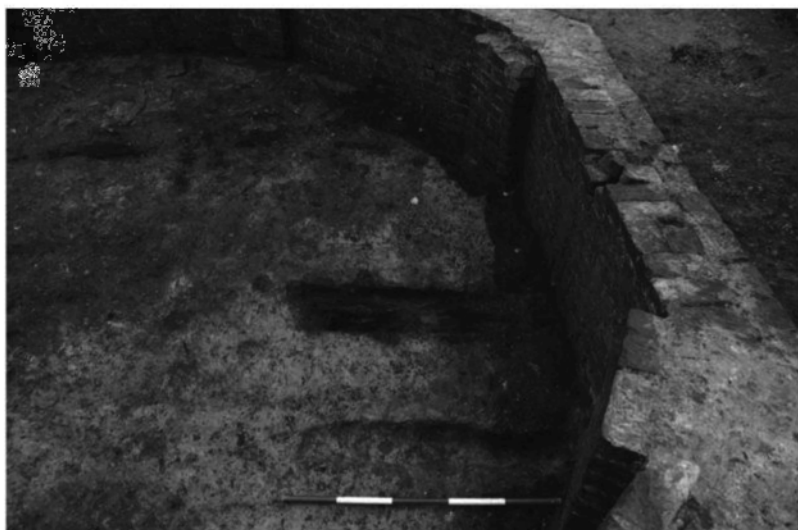
the central area of the mill 'floor' was evident and this may have resulted in the loss of further beam-slots traversing the area. Small quantities of pottery dated to the nineteenth century were recovered from one beam-slot.

Cutting one of these beam-slots and located adjacent, but perpendicular to the north-west wall, lay two parallel beam-slots (**Plate II**). These both extended just over 1m towards the central area of the mill. The beam-slots measured 0.18m and 0.33m in width, the latter of which contained the remains of *in situ* timber and produced clay pipe stems dated to the mid eighteenth to nineteenth century.

A deposit of tar and gravel, 0.05m thick, was subsequently laid down which sealed the timbers. This deposit had only partial survival. However it clearly abutted the walls and buttresses, and ephemeral traces of timber and impressions made by objects that once stood on this floor survived (**Plate III**).

The tar floor was sealed by a deposit of rubble (presumably from the demolition of the mill), which contained a quantity of red brick fragments and crushed mortar. Pottery dated to the late nineteenth to early twentieth century, fragments of glass and a sixpence of George III dated 1819 were recovered from this deposit.

During the early twentieth century, the resulting hollow of the former



Interior of mill base showing beam-slots and *in situ* timbers

mill base was used as a dump and became infilled with domestic waste. Artefacts recovered from this dump deposit included glass bottles, pottery dated to *c.*1900-1925, and the bowl of an Edward VII 1902 coronation clay pipe. The dump deposit was eventually sealed by topsoil and the mill became covered by shrubs.

Discussion and interpretation of results

Opportunities for the archaeological excavation of windmills are relatively rare and whilst a number of post mills have been investigated in Kent, no smock mills have been the subject of excavation.

The earliest element of the mill was the north-west to south-east aligned trench which, based on the method of construction, would seem to be for drainage. Unfortunately, due to the lack of comparative excavations, it is not certain whether drainage trenches were a common feature in smock mills. However, the deliberate gap left in the brickwork where the trench met the mill base suggests that it must have been an integral part of the structure.

The brick mill base is similar in form to many smock mills in the county, for example Herne Mill and Davison's Mill at Stelling Minnis. St Martin's Black Mill had an octagonal base and most smock mill bases



Area of surviving tar floor with impressions

were octagonal, but some had a hexagonal base (e.g. Killick's Mill at Meopham) or a dodecahedral base (e.g. West Hill mill at Brighton; Brunnarius 1979, 8). Some mill bases were single-storey whilst others could be three storeys high (as the surviving Union Mill at Cranbrook). It is not uncommon for the base of the mill to be partially below ground

level, as is the case with the Black Mill. Here, only the below-ground element of the base survived and no evidence of an entrance or threshold had survived in the remaining brickwork.

The room in the mill base would have been a cellar or store for grain and meal (Brunnarius 1979, 11). The function of the timbers encountered within this room is uncertain. It is unlikely that the timbers are structural as the wooden body of a smock mill sits upon the brick base. Equally mill machinery is not generally found within the cellar. It is therefore possible that these may represent joists for a timber floor. Some disturbance to the central area of cellar was encountered which may have resulted in the loss of evidence for associated timbers and beam-slots. The function of the pair of parallel beam-slots is also uncertain but these may represent the base of internal stairs. If there was indeed a timber floor within the cellar this was, at some point, replaced by a floor of tar and gravel.

Sealing the tar floor the rubble deposit may have been laid down during or immediately following the dismantling of the mill. Whilst brick fragments were recovered from this deposit the relative paucity of this material may indicate that much of the brick base was dismantled and taken for re-use elsewhere.

The Windmill on St Martin's Hill – documentary evidence

A tantalising early reference to a mill at St Martin's can be found in the Chamberlain's Accounts relating to the Farm Rents of the City dated 1740 to 1741. Two entries record rental fees for 'John Austen for a Messuage and Malthouse at St Martin's Lane' and 'John Austen for a garden next to St Martin's Mill belonging to the Malthouse to the City' (Panton 1992, 224). Title deeds relating to a malthouse, situated within the parish of St Martin's, show that the malthouse was granted to Charles and Nathaniel Austen in 1780 (Cathedral Archives CCA-U451/T/7). These deeds state that the land associated with the malthouse also included a mill and a mill house. Assuming that the mill was used for the grinding of malt, which is ground in the same manner as other cereals, it is not inconceivable that this mill was wind-powered. Unfortunately the location of this mill remains uncertain, but the mill was certainly still in existence by 1790 as it is listed in title deeds of this date (*ibid*).

Despite the references to a mill in the locality, neither Andrews, Dury and Herbert's map of 1769 or William Mudge's map of 1801 depict a windmill in the area. The first series OS map published in 1816 does, however, depict St Martin's Black Mill. Beyond this, a construction date for the mill remains elusive. Interestingly the Tithe Map of 1839 does not depict the Black Mill, but does depict in detail St Martin's Mill, recording Thomas Marsh as occupier and miller of the latter at that time. The area of the Black Mill is marked on the tithe map as 'mill garden' (West 1973,



Reproduction of windmill on St Martin's Hill by Rev Thomas James Judkin
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29), and George Hammond is cited as the landowner (Cathedral Archives DCb/T/O/C/1/4a). Unfortunately a link between the 'mill garden' and the 'garden next to St Martin's Mill' cited in 1741 could not be established, but the persistence of the name does make it tempting to suggest an eighteenth-century origin for the mill.

In fact, the principal record of the mill is a painting by the Reverend Thomas James Judkin, simply entitled *Windmill on St Martin's Hill, Canterbury, Kent* (Plate IV). Perhaps a little romanticized, as the mill did not stand so close to the road, the depiction of the mill is probably accurate. Painted in 1860, towards the end of the life of the mill, it is depicted as a three-storey smock mill constructed on a two-storey brick base. The painting also depicts a structure built externally to the base on one side and situated beneath the stage. Similar structures, or roundels, such as that which can be seen at the White Mill, Sandwich, usually extend all the way round the base of the mill often with the roof serving as the stage. The structure at the Black Mill was probably constructed to provide more storage space but, unfortunately the excavation did not locate any associated features.

Despite it being unclear when and by whom the mill was constructed, there is some documentation regarding the millers. The earliest record cites Samuel Beard as the miller in 1832 (Ron Cookson, *pers. comm.*)

and, whilst being listed simply as the occupier on the Tithe Award, Samuel Beard is listed as the miller in *Pigot & Co.'s Royal National and Commercial Directory* of 1839 and 1840 (Coles Finch 1933, 317; Janet & Richards Genealogy 2011). There is, however, no listing of a miller at the Black Mill in *Kelly & Co.'s Directory* of 1845 (Coles Finch 1933, 320). By the time of the production of the 1847 *History, Gazetteer and Directory of Kent* the mill had changed hands, and Hinds and Richardson were listed as the millers (Historical directories n.d.). Frank Richardson is subsequently listed as the miller in 1851, 1855 (Ron Cookson, pers comm) and in 1858 (Melville & Co.'s *Directory & Gazetteer of Kent*; Historical directories n.d.). By 1862, *Kelly & Co.'s Directory* lists J. Durrant as the miller (Coles Finch 1933, 325).

The reason for the closure of the mill is unclear. Perhaps the mill had become unable to compete in terms of productivity, as by this time other mills were turning to auxiliary power in the form of steam engines which enabled milling to continue on windless days. This was certainly the case with the neighbouring mill (St Martin's tower mill) which is recorded as a 'steam mill' by 1859 (West 1973, 29).

By 1867 plans to dismantle the mill were in place. The notebooks of the Holman Brothers of Canterbury, renowned millwrights, record a contract between Thomas Holman and Thomas Glover. The contract, dated 16 December 1867, is an estimate for the construction of a windmill at Blean which was to become Blean New Mill. The contract states that 'The following tackle to be used from the Black Mill, St Martins Hill. 4 sweeps with lever / striking tackle (2 midlings if good & sound) fan tackle, wind shaft & carriages, providing new neck and tail brasses if required, brake wheel, brake, wallower gearing, spur wheel, new gearing the same, stone pinions, pinion for driving flour machine tackle, quants, stone spindles, driving irons, stone boxes (putting the same in good working order) flour machine cylinder wire & brushes, & 1 pair of wheat stones' (The Mills Archive 2012b). The dismantling of St Martin's Black Mill and the construction of Blean New Mill was to be completed by 1 July 1868.

The remains of the mill continued to be a feature in the landscape and they were depicted on the OS map of 1873, which shows the 'Old Windmill' apparently set within gardens. A building situated towards the street frontage may correspond to one depicted on the OS map of 1816. By 1896 this building had become *The Mill* public house, as demonstrated by a judicial record of this year naming Abraham George the landlord of the *The Mill* as a witness (CCA: CC-J/V/1896/11). This building was subsequently demolished and rebuilt, continuing as the *Mill House Tavern* up to recent years; it was destroyed by fire 5 April 2011. The plot that encompassed the windmill and the public house, as depicted on the 1873 OS map, remains the same up to the present day.

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ENDNOTES

¹ A post mill comprises the body of the mill containing the machinery and carrying the sweeps which rotates about an upright timber post.

² A tower mill comprises a brick or stone tower with a revolving cap.

³ A smock mill comprises a fixed body of timber with a revolving cap.

⁴ See also *Archaeologia Cantiana*, CXXVIII (2008), 377-8.