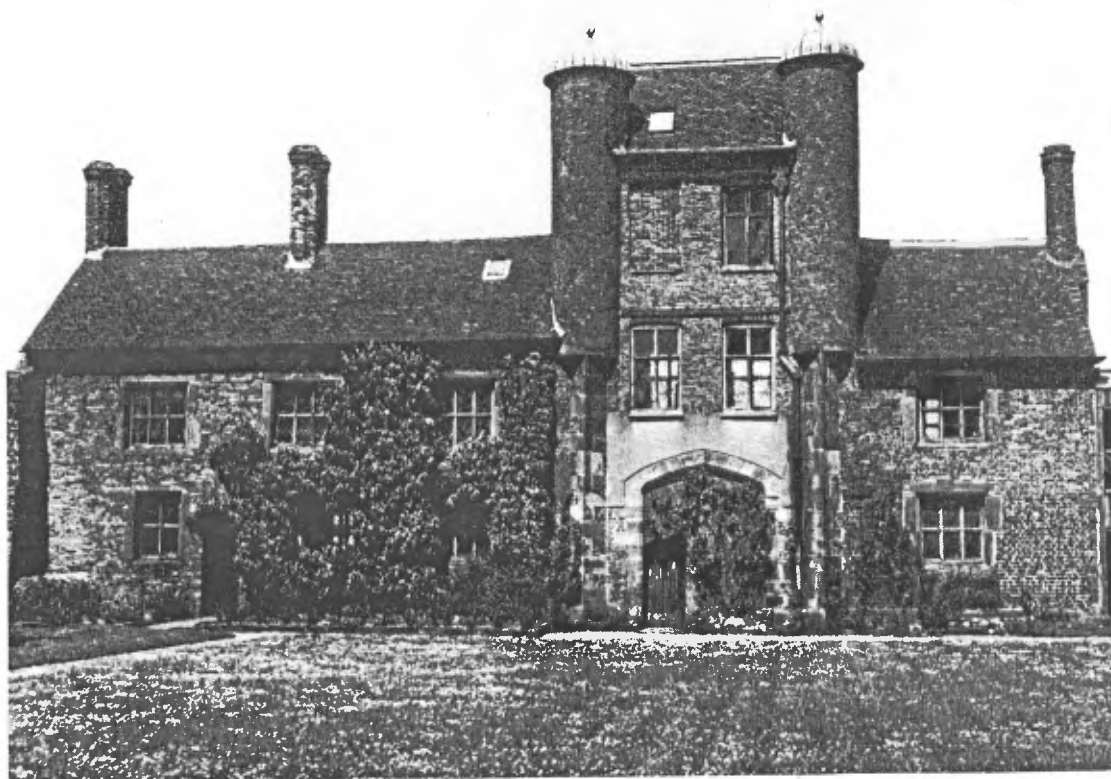


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Cover Illustration:

Pillaton Hall, Staffordshire, was built around 1500, either between 1495 and 1502 in anticipation of the marriage of Richard Littleton, the builder, to the heiress Alice Winnesbury, in 1495 or immediately after her father's death in 1502. The surviving north range incorporates the stone-built chapel dedicated to St Modwena (beyond the right of the photograph) which was largely rebuilt in 1488. Only an isolated brick chimney from the west range, a shapeless brick cliff from the east range and the stone base of a fireplace from the south range remain from the other parts of this large quadrangular house which was largely demolished after the building of the now demolished Teddesley Hall in 1740.

Editorial:

The Heated Brick: the Ideal Bed-Warmer and Foot-Warmer

Just as *British Brick Society Information*, **119**, February 2012, was being put to bed — the technical term makes an interesting pun — a lengthy correspondence appeared in *The Guardian* concerning the relative merits of a rubber hot water bottle, a stoneware pig filled with hot water, a stoneware ginger beer bottle, and an electric blanket as the modern and not so modern means of pre-heating one's bed. Curiously, the traditional warming pan, a metal pan containing hot water with a long wooden handle, was not mentioned in letters to the newspaper.

To the correspondence, Mr Jack Hawker from Deal, Kent, added a further recollection: the practice of placing a house brick in the side oven of a coal-fired range. Using fire tongs, the heated brick was extracted from the oven before being wrapped in a blanket and tied with binder twine, ultimately being taken upstairs to an unheated, and hence cold, bedroom and placed in the bed. The result would be warm sheets, very welcoming on a cold night when the air temperatures dropped below freezing point and icicles had possibly formed within the single-glazed windows. A cold room with water frozen inside the windows are things I remember from the house in Gorleston-on-Sea built in 1865 and occupied for sixty-eight years from 1915 by my Welsh grandmother and her bachelor son; in contrast, my other grandmother's house, built in 1845 on a road parallel to the sea front in Great Yarmouth and barely 100 yards from that windswept and sand-blasted front was not cold, but she kept her range continuously alight. For a child, used to cold bedroom facing north-west and above an equally cold kitchen in a late 1930s house, to sleep in the box room behind the kitchen chimney stack was bliss! To experience the benefits of the heat of that continuous fire was an especial treat.

A variant on the heated brick placed in the oven of the range was pointed out in another letter to *The Guardian* by Patricia Hopley of Liverpool. This was to use the oven shelf wrapped in a blanket as the bed-warmer. The shelf in a range oven was a continuous plate not as in a modern electric oven a series of thick rods allowing heat to circulate round the casserole dish or roasting pan. An Italian variant involved using live coals on a plate and within a cage.

The topic of using a brick to warm the bed or one's feet was the subject of a query and various short notes in issues of *British Brick Society Information* between 1984 and 1987. Both Terence Smith and the late F.S. Cheney noted the use of an "ordinary" brick in the 1930s as a means of warming a bed, respectively in Luton and Leicester: see *BBS Information*, **32**, February 1984, p.19 and **35**, February 1985, p.18, respectively. A year later Alan Hulme drew attention to a brick in his collection, a STREAMLINE BED HEATER. Made in fireclay, it measured $7\frac{1}{2} \times 4 \times 3$ inches (approximately $190 \times 100 \times 75$ mm), but he was unaware of its origin. One feature of the brick was its chamfered edges (fig.1a): *BBS Information*, **38**, February 1986, p.6. Also of unknown origin is the brick thought to have been used as a bed-warmer — it was shaped rather like a conventional hot water bottle (fig.1b) — about which Linda Bebb asked in *BBS Information*, **42**, May 1987, p.19. The object had a greyish-brown body with 1 mm-sized grits, and was completely covered with a yellow glaze, now heavily crackled. Damage to the glaze allowed the clay body to be observed.

Three members drew attention to a product made by Nawells, brickmakers of Leicester, who made a foot warmer of roughly semi-circular cross section or quadrangular cross-section with one side domed. Martin Hammond, Alan Hulme and E. Marsh reported that NAWELLS LEICESTER was stamped on one end and FOOT WARMER or NAWELLS PATENT FOOTWARMER on the side opposite to that with the domed or semi-circular section. E. Marsh reported a red brick with a clear glaze, *BBS Information*, **32**, February 1984, p.18, and Martin Hammond noted a brown salt glaze, suggesting a fireclay or stoneware body, *BBS Information*, **33**, May 1983, p.18.

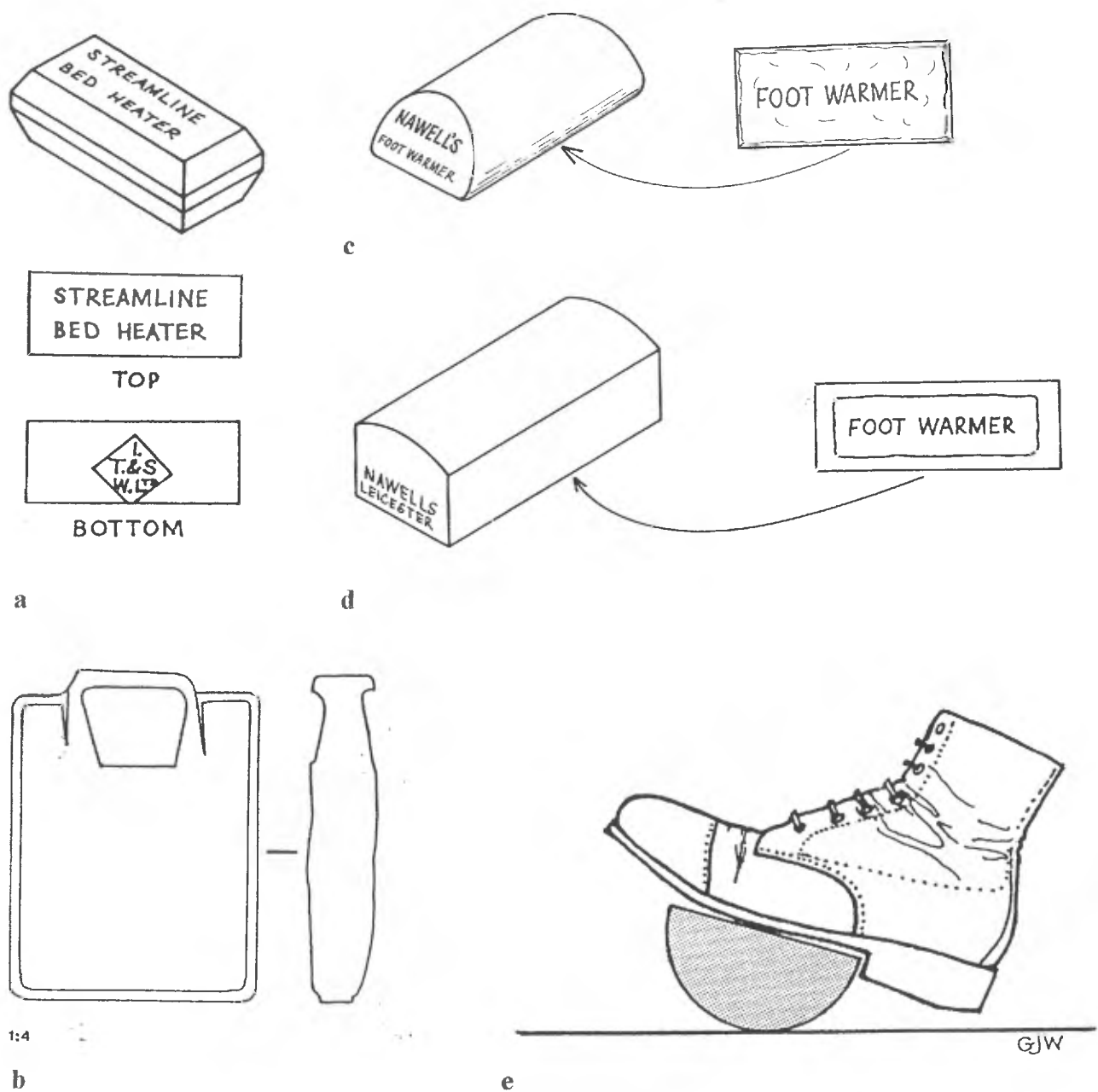


Fig. 1 Bed warmers and foot warmers of brick.
a. and b. Bed warmers; c. and d. Foot warmers by Nawells of Leicester.
e. Illustration of how a foot warmer would have been used.

Sources: a. *BBS Information*, 38, February 1986, p.6; b. *BBS Information*, 42, May 1987, p.19.

c. *BBS Information*, 32, February 1984, p.18; d. *BBS Information*, 33, May 1984, p.18.

e. *BBS Information*, 38, February 1986, p.6.

Figs 1a-1d drawn by T.P. Smith; Fig. 1e drawn by G.J. Walder

Alan Hulme reported that there were wear marks on the curved portion indicating that it was used with the curved side downwards, to allow the feet to rock the brick and presenting a larger area in contact with the boot; customarily, Victorian gentlemen would have worn boots, not shoes: shoes were lighter in weight and for social occasions only.

Unfortunately, brickmakers under the name 'Nawells' do not appear in trade directories

for Leicestershire produced by Kelly's issued about every four years between 1891 and 1941 under either 'Brick & Tile Makers' or 'Fire Brick Makers'. Nor has any resident with this surname been found in the same half century. Nawells were also not in Leicestershire directories issued in 1863 and 1877 by William White nor that of 1881 issued by Thomas Kelly. Nor is a firm under the name of N.A. Wells present in these directories. Presumably the firm operated in the early or middle part of the nineteenth century but had gone out of business by the 1890s or was short-lived, in business at some point between 1864 and *circa* 1875 or in the 1880s.

Martin Hammond also noted that some railway companies had foot warmers for hire at the principal railway stations before carriage heating was introduced. Certainly, the Midland Railway offered such a service, initially just for first class passengers. Eventually, the practice spread down the social classes. What looks suspiciously like an upturned foot-warmer — indeed the young woman's foot is resting on the end — can be seen on the bare boards of the floor of the compartment depicted by Léon Spillaert in *Woman on the Train (The Widow)* of 1908 (Brussels: Musée royaux des Beaux Arts de Belgique). The carriage has bare boards, laid horizontally, for the seats and seatbacks, no upholstery, no cushions. Boards appear also in both the drawn and painted versions of *Third Class Carriage* by Honoré Daumier, done in the mid 1860s (drawing: Baltimore MD: The Walters Art Gallery; painting: Ottawa: National Gallery of Canada) but the people are cut off at the knees and no feet are visible. The furnishings of these compartments contrast with the opulent, upholstered surroundings of those depicted by Augustus Egg in *The Travelling Companions* of 1862 (Birmingham: City Art Gallery). As with *First Class: The Meeting ... and at First Meeting Loved* by Abraham Solomon — painted twice, first in 1854 and a second version in 1855 (respectively Ottawa: National Gallery of Canada; and York: National Railway Museum) — the women's dresses are so voluminous that they would have hidden any foot-warmer. The paintings by Daumier, Egg and Solomon were all included in the exhibition 'The Railway: Art in the Age of Steam' held at Walker Art Gallery, Liverpool, in Summer 2008 and later in the USA at the Nelson-Atkins Museum of Art, Kansas City MO; all paintings cited in this paragraph are illustrated in the catalogue of the same title edited by Ian Kennedy and Julian Treuherz

Just over two weeks after writing the above, *Train Landscape* by Eric Ravilious (1903-1942), painted in 1939, was chosen as 'My Favourite Painting' by Ben Pentreath in *Country Life*, 21 March 2012. The floor of the empty third class carriage is not visible, but unlike the earlier third class carriages from Britain and Belgium, the seats are now upholstered. John McEwan commented on the furnishings and fittings of the railway compartment as betraying the origins of the railway carriage in the horse-drawn carriage. Did the use of the heated brick foot-warmer go back into the period when long-distance travel was by stage coach? And thus was Nawells or N.A. Wells a firm which existed in the early part of the nineteenth century? One would like to know.

The British Brick Society had a successful visit to North Oxford on Saturday 21 April 2012 and a report will be included in the next issue of *BBS Information*, due to be sent to members in August 2012. A further issue, with a long article on brickmaking in Charles Dickens' novels will be issued to members towards the close of the calendar year.

The editor invites contributions to future issues of *British Brick Society Information*.

DAVID H. KENNETT

Editor, *British Brick Society Information*,

Shipston-on-Stour,

5 March 2012 and 21 May 2012

Pre-Reformation Brick Building in Staffordshire

Mike Kingman

Students of early brick building in England are familiar with the view that the overwhelming majority of such buildings were in the South and East of the country. Terence Smith in his study of medieval brick building lists 28 possible brickyards in what he calls 'the formative period' of 1400 to 1450. Of these only one, near Prior Overton's Tower at Repton, Derbyshire, lies west of Lincolnshire and north of the Warwickshire Avon.¹ The emphasis on the south and east continued after 1450. For example, before 1520 there were approximately only four brick buildings in Leicestershire, possibly five in Warwickshire, and three in Nottinghamshire.²

There were, however, by my estimation, at least eleven early brick buildings in Staffordshire and possibly as many as eighteen. These can be divided into three groups: Lichfield Cathedral Close, in the City of Lichfield, and elsewhere in Staffordshire

In Lichfield Cathedral Close, we have four or five Prebendal Houses, a Library, the Choristers' House, the Vicars Choral house, and possibly the Canons House.³

In Lichfield City there are St John's Almshouses and Milley's Almshouses.

Elsewhere in Staffordshire are Pillaton Hall, the Grammar School at Rolleston-on-Dove, Hamstall Ridware Hall which may date to before 1518, and Enville Hall. Two other buildings possibly pre-dating 1520 are 'The Red House' at Aldridge and 'The Brick House' at Winsill, Burton-on-Trent.

Thirteenth- or fourteenth-century brick was also recorded in an archaeological excavation of Hulton Abbey, Stoke-on-Trent. Ten of the bricks were tapered which suggests that they were possibly used as voussoirs. The bricks were poorly prepared, irregular, and made of River Trent clay. Some were splattered with glaze or lead which indicates that they were fired in a floor tile kiln. Such a kiln was probably adjacent to the monastery although some were fired at the nearby Sneyd Green kiln.⁴

The uncertainty of the totals is the result of optimistic attributions for which the evidence is slight. For example, the term 'Red House', which was commonly used in the seventeenth and eighteenth centuries to indicate a brick house, appears in a will of 1541 in Aldridge, later an important brick producing centre, and the phrase 'brick house' appears in a mid sixteenth-century inventory at Winsill in Burton-on-Trent.⁵ Even allowing for a degree of exaggeration and the possibility that these houses could have been built after 1530, the central question remains. Why in Staffordshire, amongst the poorest of all the Midland counties, should there be such a relatively large number of brick buildings?

Recent research into the patrons of brick building in the fifteenth century has emphasised their wealth and prestige. David Kennett has written that 'Brick houses were built only by the very richest men'⁶ and Jane Wight has noted that 'one coherent and identifiable group of fifteenth century people who stimulated the fashion for brick were the bishops'.⁷ The brick buildings of members of the episcopacy, such as William Waynflete, Thomas Rotherham, John Morton, John Alcock, and John Fisher are well-known and the buildings they promoted in Yorkshire, Cambridge University and southern and eastern England have been fully described.⁸ What this article would suggest is that this episcopal network also encompassed the less well known Bishops of Lichfield and Coventry who, with their senior diocesan clergy, promoted brick buildings in Staffordshire, a county generally less well investigated by architectural historians.

The Bishopric of Lichfield and Coventry was often an initial stage within a chain of promotion whereby royal officials and administrators were rewarded with the see, and then with greater responsibilities moved to the richer dioceses such as Durham or Lincoln. Many of the

Lichfield bishops were thus members of an episcopal network, in that they were friends, colleagues, family members, and close associates of other brick-building bishops and as royal administrators were familiar with royal palaces, the buildings of central government and major aristocratic families. In the fifteenth and sixteenth centuries, the significant bishops were:

Bishop John Hales (1459-1490),⁹ Keeper of the Privy Seal in the Re-adeption of 1470-71, in which post he was both preceded and succeeded by Thomas Rotherham, one of the most important brick-building bishops.¹⁰ He was a friend of Thomas, Lord Stanley, and brought to the cathedral wealthy scholars and diocesan officers such as Thomas Milley and Dean Heywood.

Bishop William Smith (1493-1496)¹¹ was educated in the household of James Stanley, Earl of Derby; Stanley's stepmother was Lady Margaret Beaufort, the founder of Christ's and St John's College, Cambridge, whose building was organised by John Fisher, Bishop of Rochester. More importantly, Lady Margaret was the mother of Henry VII, who after the fire in 1498 would rebuild Sheen Palace, Richmond, in brick. Smith was consecrated bishop by Archbishop John Morton,¹² who as Archbishop of Canterbury was the builder in brick of Croydon Palace and Lambeth Palace; earlier, as Bishop of Ely, he had built the Bishop's Palace, Hatfield, in brick. Smith, who later founded Brasenose College, Oxford, was extremely wealthy and an important royal official as Lord President of the Council of Wales and the Marches,¹³ of which the Stanleys were also leading members. Rarely in attendance at Lichfield, he was one of those described by Latimer as an 'unpreaching prelate'. The Council was based in Ludlow and it may not be entirely co-incidental that the MP for Ludlow in 1491-92, at the time when Bishop Alcock was President of the Council,¹⁴ was Richard Littleton, the builder of Pillaton Hall, the earliest brick-built secular building in Staffordshire.¹⁵ In 1496, Smith was promoted to become Bishop of Lincoln, but remained President of the Council of Wales and the Marches until 1512.

Bishop John Arundel (1496-1502)¹⁶ was succeeded by **Bishop Geoffrey Blythe** (1503-1531),¹⁷ whose mother was the sister of Thomas Rotherham. Blythe's early career was heavily promoted by his uncle, of whose will he was chief executor. Blythe also served as Lord President of the Council of Wales and the Marches, holding this office from 1512 to 1524.

Evidence of early brick buildings in the Close at Lichfield is limited, none of the buildings survive in their entirety and any consistent building records, if they ever existed, have been lost. Confirmation of the buildings is derived from random comment, unsystematic records and two paintings. One of the problems of identifying the brick of the Close is the impact of the Civil War. The Close was besieged three times, twice in 1643 and again in 1646, with devastating results. A survey of the houses in the Close described some as 'much ruined', 'out of repair' and 'spoyled'. It described the 'house of Mr. Jofray late Canon Resident situate at the corner of the Close South side of being greatly ruined broken and torn with Granadoes' (artillery shells). This was also probably a brick house.¹⁸ By 1660 there was only one small room in the cathedral which had a roof and the main nave and chancel were not reroofed until the 1670s. Many buildings were destroyed and because of the abolition of the cathedral chapter in 1649 there were no clergy to repair the houses which were quarried for building materials by 'poor and pilfering people'. Despite Parliamentary requests that no records should be destroyed there are no surviving chapter accounts or acts from between 1439 and 1480 nor any fabric accounts for any part of the medieval period.

Much of the evidence for brick building is derived from early-nineteenth-century historians who were writing before some of the buildings were radically altered. In 1806, Thomas Harwood wrote that, 'Halse [Hales] had erected several good brick buildings in the

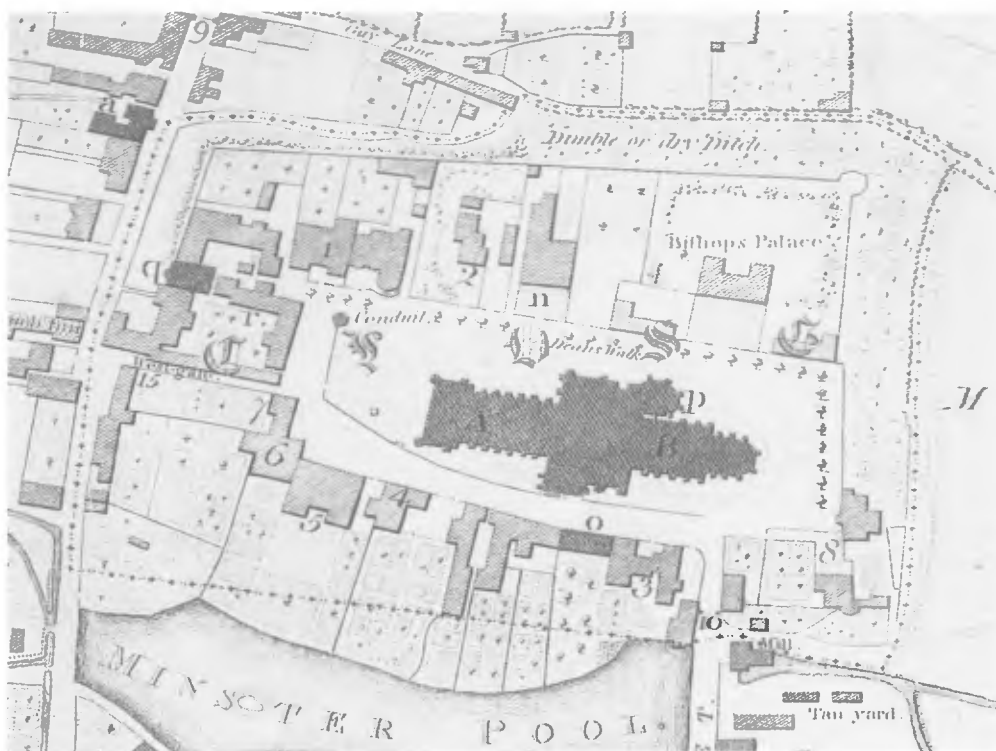


Fig. 1 John Snape's Map of Lichfield, 1781. The prebendal houses are shown as 3, 5, 6, and 7. Strangeway's house is marked as 3. The site of the old Vicars' Hall is marked as q. The Library, built on the north-west corner of the nave, and the Choristers Hall (sited approximately at 2) at this date have been demolished.
By kind permission of Lichfield Record Office.

Close', more precisely 'In the south-west part of the Close were three prebendal houses, enjoyed by the fifth, the first and the sixth residential. These houses were built for the residence of the canons by Bishop Halse, who died in 1490, and were probably some of the earliest brick buildings in the kingdom. In each of them was a spacious hall, in which they lived in a collegiate manner'.¹⁹ The location of these three brick prebendal buildings was derived from Henry Wharton's *Anglia Sacra* of 1691.²⁰ In summary Wharton wrote that Hales built splendid brick buildings '*splendidas aedes latericias*' near to the pool to the west and that canon Henry Ediall built nearby and next to canon Thomas Milley. George Strangeway, Professor of Theology, built similarly 'houses' in the eastern part of the Close, '*qui similes posuit ad orientalem partem Clausi*'. His house was not therefore one of the three brick prebendal houses in the south-west of the close. This would suggest at least four brick houses were allocated to prebendal canons. There is considerable confusion as to the location of Strangeway's house and Harwood claims that his house was both that of the second residentiary and that of the fourth, both of which are on the northern side of the Close.²¹ Conservatively we may therefore claim at least four brick houses in the Close. There may have been more, for in his description of Thomas Milley as a 'great benefactor', Harwood states that 'he built at his own expense *some* handsome brick buildings'. This comment was echoed by John Leland who in the 1530s reported that 'The prebendaries houses in the close buildyd by dyvers men be very fair'.²² (see fig. 1)

The rebuilding of the Close after 1660 may provide evidence of a further brick house. In 1670-71, Henry Greswold rebuilt a prebendal house in Lichfield Close 'from ye very foundation at about £300 charge to me besides the materials of ye ruins of ye old Prebendall house there plucked down by me'.²³ Greswold's house was almost certainly brick-built, for no

stone buildings, other than the Bishop's Palace, were erected immediately after 1660 and the fact that it incorporates 'materials of ye ruins' would suggest that the ruined house had been brick. This is not an early prebendal house, for they were still complete when painted in 1807. Neither was it Strangeway's house for that was rebuilt in the early 1660s as a potential palace for the bishop.

The prebendal houses were large and sophisticated; a painting by Buckler in 1807 of Milley's house, and entitled 'Count of an Ancient House at Lichfield' shows a two-storeyed building with a range of mullioned Perpendicular windows.²⁴ It was substantially remodelled in 1814. Ediall's house also painted by Buckler, and entitled 'Ancient Brick House at Lichfield' was a substantial three-storeyed house with heated rooms upstairs. The brickwork was decorated with dark headers representing a cross and St Peter's keys on the west chimney stack and St Laurence's gridiron on the south wall.²⁵ It was extensively rebuilt in 1812 although some early brickwork still survives on the north face. The third prebendal house mentioned by Wharton was demolished in 1800 to make room for Newton's College.²⁶ Strangeway's house may have been the one occupied by Bishop Hackett in 1660 before the building of a new palace, in which case it was extremely large, for after the Restoration it was described as having thirty-five rooms.

Of the other brick buildings in the Close, in 1471 Thomas Heywood,²⁷ dean 1457-1492, financed the building of a house for the Vicars Choral which may have been brick and was demolished in 1756; and in 1490, he gave £40 towards the building of a brick library which stood on the north-west angle of the north wall of the cathedral. The library and the timber-framed chapter clerk's house were demolished in 1757 to improve the aspect of the Close, but the library must have been reasonably large for in a Parliamentary survey of 1649 its building materials were valued at £60.²⁸ Leland in his *Itinerary* noted that 'The Chorists have a goodly howse lately buildyd by Bysshope Blithe'.²⁹ Erected in 1527 as a common hall, Blythe contributed £40 and James Denton, dean between 1522 and 1533, provided the remainder of the cost and a much admired freestone porch.³⁰ It was demolished in 1772. Beresford in his diocesan history of 1875 claimed that all the above were built of brick. 'Conspicuous among the characteristics of the time is the extensive use of brick at Lichfield. This material was used in building a library between the nave and (present) deanery, for the canons' houses and, a little later on colleges for the choristers, chantry priests and vicars.'³¹

One of the problems for the historian is explaining why in this poor diocese there should be so many expensive and fashionable brick buildings? According to the *Valor Ecclesiasticus* of 1537, Lichfield was the poorest of the secular cathedrals: its common fund was £436 10s. 3½d.³² Modestly endowed, its estates, although the second largest in Staffordshire after the duchy of Lancaster, were only valued at £683 in 1537.³³ The answer in part is surely that so many of the clergy were also royal officials with other sources of income or had considerable personal wealth. An indication of this wealth was the requirement all the residential canons had to pay 100 marks (£66 13s. 4d.) on beginning their residence.³⁴

Dean Heywood, for example, paid for the frescoes in the cathedral, the glazing of the chapter house, new bells, an organ, and a brick library. In 1468 he supported the building of a brewhouse and bakehouse for the chantry priests and in 1471 he financed the rebuilding of the common house of the Vicars Choral. Harwood in 1806 recorded as having seen 'An Indenture by which the said Peter Burrell and the Vicars do bind themselves in lieu of a great sum of gold (author's italics) given them by that good Dean Heywood to the new erecting of their common houses in the Close'. Heywood also gave Burrell, the Subchanter, 'fifty acres of arable, eighteen of meadow and sixty of pasture'.³⁵ In 1485, he gave the Vicars and the Subchanter two pastures and two acres of arable to finance two 'great waxen tapers'.³⁶ Four years earlier, in 1481, two monstrances, used for keeping relics, were given by Dean Heywood and in 1490 Heywood donated £40 towards the building of the library, 'ex parte boreali in cimeterio'.³⁷ In 1493, Canon



Fig. 2 Brick prebendal houses to the south of Lichfield cathedral.

Source: John Jackson, *History of the City and County of Lichfield*, 1805.

Yotton gave 100 marks to complete the library.³⁸ Donations by the canons to ‘the Bag of Whalley’, the common fund of the canons hint at their wealth. In June 1504, Thomas Milley have the huge sum of £200 10s. 0d.³⁹ Dean Denton, ‘much in favour at court’ was described as ‘a great benefactor to this church ... and indeed was very generous to all places where he had any relation’⁴⁰ Denton was chancellor to Princess Mary, royal negotiator in Ireland, and President of the Council of Wales and the Marches. George Strangeway, archdeacon of Coventry, was obviously rich, for as a royal chaplain to Henry VII he gave the king a wonderful ‘Book of Hours’ which had previously belonged to René of Anjou, the nominal king of Naples.⁴¹

Interestingly, it was at Lichfield that John Leland may have offered a more pragmatic explanation for building in brick and began the myth at brick houses were built because timber was in short supply. Although the relationship is not specifically stated, in the context of a description of Bishop William Smith’s almshouses, he noted in his *Itinerary*,

Whereas of auncient tyme all the quartars of the contrye about Lichefield were as forest and wild ground and naturally somewhat bareyne, now the grownd about it by tyme and culture waxithe metely good, and the woods be in may places so cut downe that no token is that evar any were there. Whereapon in hominum memoria wood is waxid dere in respect of the old price at Lichefield.⁴²

Episcopal financial records, such as survive, actually demonstrate increased sales of wood, particularly in the second half of the fifteenth century under Bishop Hales.

There are two surviving brick buildings built by churchmen within Lichfield. The most famous is St John’s almshouses (fig.3) built by Bishop William Smith in 1495 as a rebuilding of an earlier foundation.⁴³ Set just outside the city walls, this bright red building with its range of tall external chimneys must have had a dramatic impact on travellers approaching the city



Fig. 3 The St John's Almshouses, built by Bishop William Smith in 1495.

from the south. The bricks may have been fired locally, for in 1840 St John's leased out one of fields, 'Beech Field', 'for getting clay and manufacturing bricks'.⁴⁴ Was this the site of a late fifteenth-century brickworks? In the same relative position as St John's but this time just outside the Close walls is Milleys Hospital, built by a cathedral canon, Thomas Milley, in *circa* 1503, again a rebuilding of an earlier foundation.⁴⁵

Another bishop, although not from Lichfield, who built in brick was Richard Sherbourne (c. 1454-1536) who was Bishop of Chichester from 18 September 1508 to early January 1536 when he resigned.⁴⁶ In his birthplace of Rolleston-on-Dove, Sherbourne paid for the erection of a brick grammar school. Built about 1520 most of it burnt down in 1640 but one original wall survives.⁴⁷ Sherbourne was one of the most important of Henry VIII's officials as the ambassador who negotiated the marriage of his eldest son, Prince Arthur, to Katherine of Aragon. A red brick wing of the bishop's palace at Chichester⁴⁸ and the pentagonal brick tower at Cakeham Manor House, West Wittering, Sussex,⁴⁹ testify to Sherbourne's enthusiasm for brick building. On a much grander scale John Vesey, alias Harman, appointed Bishop of Exeter in 1519, diverted considerable funds into the economic regeneration of his birthplace, Sutton Coldfield, a place a few miles over the county boundary in Warwickshire. He restored the market place, founded a grammar school, built a number of stone houses and erected a large brick mansion at Moor Hall.⁵⁰ Vesey had strong connections with the diocese of Lichfield; he had been Vicar of St Michael's church, Coventry, Archdeacon of Chester, then a Lichfield appointment, Chancellor of Lichfield, and Lord President of the Council of Wales and the Marches.⁵¹

Enville Hall was built in the 1530s as a substantial house with at least '18 chambers'.⁵² Originally with turrets and crow-stepped gables it is now incorporated into the larger and later mansion. It was built by Thomas Grey, a member of a minor branch of the Leicestershire Grey family that built brick houses at Groby Hall in the 1450s and the spectacular Bradgate Hall between 1499 and 1520.⁵³ Sheldon Hall, Warwickshire, the main block of which is early brick,⁵⁴ was also a Grey possession. It is possible that the adoption of brick by the Staffordshire Greys was influenced by their richer and more influential cousins. The Leicestershire Grey family had



Fig. 4 The Tower at Hamstall Ridware, pre-1518?

strong royal connections; Sir John Grey of Groby had married Elizabeth Woodville, who after John's death married King Edward IV. Her son, Sir Thomas Grey, the original builder of Bradgate Park, was raised to the title of Marquis of Dorset.

One final structure to be considered is Hamstall Ridware Hall (fig. 4), a major complex of hall, outbuildings, gatehouse, and an imposing tower. Pevsner suggests a date of 'from the C16 to the early C17'⁵⁵ for the range of buildings and the National Monuments Record give *circa* 1530 to 1540 for the tower. The pattern of header work on the east face of the tower is confusing and difficult to interpret but given the eye of faith and a large dollop of imagination it may represent an eagle. Ian Ferris has suggested that given an awareness that a local bricklayer might find it extremely difficult to deal with the limitations of brick as an aesthetic medium then it could well be an eagle and that the tower must therefore date from before 1518 for the eagle was the emblem of the Cotton family who sold the estate in that year.⁵⁶

The three secular buildings at Pillaton,⁵⁷ Enville and Hamstall Ridware were probably inspired by contacts which their builders had with royal or aristocratic buildings. But more importantly in Staffordshire was the inspiration provided by the Bishops of Lichfield and the cathedral clergy. Jane Wight in her study of *Brick Building in England from the Middle Ages to 1550* has written that 'between 1470 and 1520 southern and eastern bishops acted as fashion leaders'⁵⁸ Terence Smith has posed the question 'Why did wealthy men of State and Church not build in brick outside of eastern England?'⁵⁹ This study would suggest that the network of bishops and clergy who promoted fashionable brick was wider than previously recognised and that the Bishops of Lichfield were an important part of that network. Lichfield was not an isolated see but a stepping stone in the promotion path of royal officials and administrators and as such was served by men who had experience of building, an awareness of fashion and style,

a personal income, and access to resources which enabled them to invest in brick building.

NOTES AND REFERENCES

ABBREVIATIONS

- DNB* Sir Sidney Lee (editor), *Dictionary of National Biography*, London: Smith, Elder and Son, 1897, 63 volumes and later supplements.
- BRUC* A.B. Emden, *A Biographical Register of the University of Cambridge to 1540*, Cambridge: Cambridge University Press, 1963.
- BRUO* A.B. Emden, *A Biographical Register of the University of Oxford to 1500*, Oxford: Oxford University Press, 3 volumes, 1957-59.
- LRO* Lichfield Record Office.
- ODNB* H.G. Mathew and B. Harrison (eds.), *Oxford Dictionary of National Biography*, Oxford: Clarendon Press, 2004, 44 volumes.
- TSSHAS* *Transactions of the South Staffordshire Historical and Archaeological Society*.
- VCH* *Victoria County History*
- WSL* William Salt Library, Stafford

1. T.P. Smith, *The Medieval Brickmaking Industry in England, 1400-1450*, [being *British Archaeological Reports British Series*, 138], 1985, p.138.
2. In Leicestershire: Kirby Muxloe Castle (1481-84), Groby Hall (mid 15th century), Bradgate House (1490-1520), and a wall at Leicester Abbey (c.1500). In Warwickshire: Fulbrook Castle (before 1435; dem. 1480s and later), Pooley Hall (1509), Wormleighton Hall (c.1512), Sheldon Hall (early 16th century), Compton Wynyates (1480s and later, using materials from Fulbrook Castle). In Nottinghamshire: Holme Pierrepont Hall (c.1509), Scrooby Palace (1480s and/or 1501-07), Hodstock Priory gatehouse (early 16th century). In addition to Prior Overton's Tower (after 1437), Derbyshire also has Barton Hall (before 1474), Longford Hall (early 16th century) and Trusley Hall (early 16th century).
3. Houses for canonical residence were conferred by the bishop, others by the Dean and Chapter.

4. W.D. Klemperer and N. Boothroyd, *Excavations at Hulton Abbey, Staffordshire. 1987-1994*, [being *Society for Medieval Archaeology Monograph* 21], 2005, pp.86-87, 101.
5. J.T. Gould, 'Settlement and Farming in the Parish of Aldridge', *TSSHAS*, 20, 1979-80, p.51. *LRO*, B/C/11 William Hampe, 1556.
6. D.H. Kennett, 'Early Brick Houses in England: Patrons and Incomes', *BBS Information*, 98, 2005, p.11.
7. J.A. Wight, *Brick Building in England from the Middle Ages to 1540*, London: John Baker, 1972, p.137.
8. For the buildings of these bishops in addition to the entries the 'Select Gazettee' in Wight, 1972, pp.222-399, and her chapter 4, 'Brick for the Bishop's Palace', pp.136-153, see also V. Davis, *William Waynflete: Bishop and Educationalist*, Woodbridge: the Boydell Press, 1993, pp.99-116; and D.H. Kennett, 'Thomas Rotherham: a Fifteenth-Century Bishop and Builder in Brick: a preliminary note', *BBS Information*, 112, April 2010, pp.6-17. The building activities of John Morton and John Alcock await detailed surveys.
9. Also known as John Halse, under which name he appears in *BRUO*, 2, pp.856-857.
10. Kennett, 2010. Rotherham's dual career in politics and university administration was considered by H.L. Bennett, *Archbishop Rotherham, lord high chancellor [1474-83] of England and chancellor of the University of Cambridge: a sketch of his life and environment*, Lincoln, 1901, earlier summary by H.L. Bennett in *DNB*, 49, pp.301-3.
11. *BRUO*, 3, pp.1721-1 and M. Bowker in *ODNB*, 51, pp.355-358.
12. Morton had been Archdeacon of Chester between 1472 and 1478, at that time a Lichfield appointment.
13. Beresford claims that as Lord President Smith was allowed £20 *per week* for the table for himself and the Council. W. Beresford, *Diocesan Histories: Lichfield*, London: SPCK, 1883, p.175.
14. John Alcock was Bishop of Worcester from 1476 to 1486 and held office as Lord President of the

Council of Wales and the Marches from 10 November 1473 to sometime in late 1483. For Alcock's career see *BRUC*, pp.5-6, and R.J. Schoek in *ODNB*, **1**, pp.593-595.

15. Pillaton Hall was built between 1495 and 1502, either in anticipation of Richard Littleton's marriage to a wealthy heiress, Alice Winnesbury, or following the death of her father in 1502. Henry Thorold called it 'A remarkable and precious gem', H. Thorold, *Staffordshire: A Shell Guide*, London: Faber & Faber, 1978, p.136. All that survives is the north gatehouse range of an originally quadrangular moated house and a huge chimney stack. For an eighteenth-century view see *VCH Staffordshire*, **V**, pp.119-120 with pl. opp.p.105.

16. *BRUC*, **1**, p.50 and N. Orme in *ODNB*, **2**, pp.579-580. John Arundell briefly went on to be Bishop of Exeter, dying on 15 March 1504.

17. *BRUC*, pp.67-68; A.A. Chibi in *ODNB*, **6**, pp.363-364, with references.

18. LRO, D546/3/1/7.

19. Thomas Harwood, *The History and Antiquities of the Church and City of Lichfield*, 1806, p.298. His comments on 'the earliest brick buildings' are interesting evidence of the lack of understanding of the chronology of brick building at this time.

20. Henry Wharton, *Anglia Sacra, sive Collectio historiarum, partim antiquitus, partim recenter scriptarum, de archiepiscopis & episcopis Angliae* (a collection of the lives of English archbishops and bishops), 1691, pp.454-455.

21. Harwood, 1806, pp.290 and 291.

22. L. Toulmin Smith (ed.), *Leland's Itinerary in England and Wales*, re-issued London: Centuar Press, 1964, **II**, p.102.

23. Warwickshire Record Office, CR 1291/246 (unnumbered document).

24. WSL, SV-V,157b. The painting is too indistinct to reproduce.

25. WSL, SV-V,157a. The painting is too indistinct to reproduce. Ediall was an executor of the will of John Morton, Archbishop of Canterbury, Harwood, 1806, p.233.

26. *VCH Staffordshire*, **14**, p.59.

27. *BRUC*, **2**, pp.897-8.

28. N.J. Tringham, 'Two Seventeenth-Century

Surveys of Lichfield Cathedral Close', *TSSHAS*, **XXV**, 1983-4, pp.35-50.

29. Smith (ed.), 1964, **II**, p.102.

30. Jackson writing tens years before Harwood claims that all the house was built of freestone. Most commentators specifically allocate that material only to the porch. John Jackson, *History of the City and Cathedral of Lichfield*, London, 2nd edn, 1805, 204.

31. Beresford, 1883, p.173.

32. *VCH Staffordshire*, **III**, p.162, citing *Valor Ecclesiasticus*, London: Rolls Series, 1806, **III**, p.132. The bishop had a gross income of £599 in the 1530s; this is the third lowest of the seventeen English dioceses.

33. I. Rowney, 'Change and Decay: The Bishopric of Lichfield and Coventry, 1350-1550' in P. Morgan (ed.), *Staffordshire Studies, Essays presented to Denis Stuart*, Keele, 1987, p.40.

34. *VCH Staffordshire*, **III**, p.159.

35. Harwood, 1806, p.282.

36. LRO, D3 0/10/1/4.

37. J.C. Cox, *Catalogue of the muniments and manuscript books pertaining to the Dean and Chapter of Lichfield*, 1881-83, pp.90-91.

38. Beresford, 1883, p.173.

39. Harwood, 1806, p.258.

40. Harwood, 1806, p.180. James Denton's career can be followed *BRUC*, pp.182-3. For his building in brick at Windsor see C. Richmond, 'James Denton at Windsor', in C. Richmond and E. Scarff (eds.), *St George's Chapel, Windsor, in the late middle ages*, Windsor: the Dean and Canons of Windsor, 2001, pp.161-170, with photograph of the demolished Denton's Commons *ibid.*, fig.17 on p.33. Denton became a Canon of Windsor on 20 September 1509 and retained the appointment until his death.

41. British Library, Egerton 1070. René of Anjou was the father of Margaret of Anjou, wife of Henry VI.

42. Smith (ed.), 1964, **II**, p.103.

43. N. Pevsner, *The Buildings of England: Staffordshire*, Harmondsworth: Penguin Books, 1974, p.191 and pl.25; the photograph is from the opposite angle to that in our fig.3. Wight, 1972, p.357.

44. LRO, D15/8/5/5.

45. Pevsner, 1974, p.192 with note.
46. C. Harpur-Bill in *ODNB*, 50, pp.283-4; *BRUO*, 3, pp.1685-7. Sherbourne died 31 August 1536.
47. Pevsner, 1974, p.227 notes the building as 1638 or 1640 but gives no details. There is a monument to Sherbourne in St Mary's church, Rolleston, as well as another in Chichester Cathedral.
48. I. Nairn and N. Pevsner, *The Buildings of England: Sussex*, Harmondsworth: Penguin Books, 1965, pp.163-6 esp. pp.165-6.
49. Nairn and Pevsner, 1965, pp.377-8; Wight, 1972, pp.389-390.
50. Moor Hall is demolished. N. Pevsner and A. Wedgwood, *The Buildings of England: Warwickshire*, Harmondsworth: Penguin Books, 1968, pp.427-8 notes surviving buildings in Sutton Coldfield paid for by Vesey.
51. Harwood, 1806, p.205.
52. *VCH Staffordshire*, XX, p.97. Accessible accounts of the later Enville Hall are Pevsner, 1974, p.130, and H. Thorold, *Staffordshire: A Shell Guide*, London: Faber & Faber, 1978, pp.97-99.
53. N. Pevsner, rev. E. Williamson, *The Buildings of England: Leicestershire and Rutland*, London: Penguin Books, 2nd. edn., 1984, pp. 108-9 (Bradgate Park), and p.170 (Groby). David Kennett informs me that for the British Brick Society visit to Bradgate and Groby after the AGM in 1988, T.P. Smith and D.H. Kennett wrote *Leicestershire Brick*, Windsor: British Brick Society, 1988, with an account of both buildings.
54. Pevsner and Wedgwood, 1968, p.204. Wight, 1972, p.391.
55. Pevsner, 1974, p.140. Thorold, 1978, p.137 has a view of the tower illustrated out fig.4 though the gatehouse.
56. I.M. Ferris, 'Survey of Hamstall Hall, Staffordshire', *TSSAHS*, XXVI, p.59.
57. Pevsner, 1974, p.222; Thorold, 1978, 136 with photograph. See also *VCH Staffordshire*, V, pp.119-120, with pl.opp. p.105.
58. Wight, 1972, p.141.
59. Smith, 1985, p.6.

Bradford, West Yorkshire: the rise and fall of an urban brick industry

Derek Barker

INTRODUCTION

Victorian Bradford was a city of terraced houses and textile mills built of a locally quarried, honey-coloured, sandstone. The most famous examples are at Sir Titus Salt's creation of Saltaire, now a World Heritage Site. Bradford contains no distinguished brick buildings earlier than one of architect Alfred Waterhouse's Prudential Assurance offices, but does it still have something to interest the brick historian? Victorian vernacular buildings constructed of brick are rare but do exist, and even stone constructions required brick chimneys or had brick features concealed by plaster and render. A million bricks are present in Bradford Town Hall although none is visible externally.¹ The famous iron-smelting works at Bowling and at Low Moor supported a fire-brick industry and needed common bricks in vast numbers, as did the city's many foundries and railways. After a three-year investigation, I am confident that I have identified almost all of Bradford's brick kiln sites.² The history of one important works, Manor Potteries brickworks in Eccleshill, is known in considerable detail throughout its long existence.³ The development, and subsequent decline, of the city's brick manufacturing industry is mirrored in many other towns in northern England.

ORIGINS

A man named William Lambert is described as an Eccleshill brickmaker in the Parish Church records for 26 October 1714; this is the earliest mention of the trade in the Bradford area.⁴ Four years later John Stanhope of Eccleshill wanted to build a new hall. He reached an agreement with John Brown who promised to 'dig and throw sufficient clay to make 100,000 good stock bricks'.⁵ Brown was to dig the clay in Eccleshill and he promised to provide tools, coals, and to construct the kiln. The price agreed was six pence per thousand when the bricks were moulded, and an additional five shillings per thousand when the bricks were burnt. John Brown came from Nottingham and this fact may indicate that no local brickmakers of sufficient skill could be found in the early eighteenth century.

Eccleshill retained an important position in the brick industry for two centuries. In an undated eighteenth-century map, drawn up perhaps in 1720, a 'brick pitt' is marked at nearby Calverley in an area of enclosures.⁶ A generation later, in 1765, the old Thackley Workhouse was built. Bradford historian William Cudworth recorded that among other disbursements of money James Booth, the overseer, 'pay'd Mary Barker for 2500 bricks at 11s per 1000'.⁷ At her burial at the Parish Church on 6 December 1787 Mary Barker was identified as the wife of John Barker, another brickmaker from Eccleshill.

GEOLOGY

The presence of extractive industries throughout the Bradford area was entirely dictated by local geology.⁸ Bradford sits on a series of Carboniferous rocks called, from their most famous

constituent, the Coal Measures. During the last period of glaciation ice extended down the Aire valley which constituted a barrier preventing watercourses from draining. As the climate became slightly warmer a series of lakes formed on low ground, one of which was 'Lake Bradford'. This accounts for deposits of alluvial clay from which bricks could subsequently be made, but the Coal Measures contained other commercially valuable stratified materials such as ironstone, fireclay and shale. Fireclay constituted the seat-earth of the Hard Bed coal seam and could be hand-moulded into refractory firebricks. Suitable shale was milled in grinding pans and, after mixing with water, pressed mechanically and fired to make household bricks.

BRICKMAKERS OF THE LATE EIGHTEENTH AND EARLY NINETEENTH CENTURIES

From parish records, press reports and other written evidence, I have been able to identify eighteen Bradford brickmakers who were active before an arbitrary cut-off date of 1850. The only person who is more than a name is Reuben Holder (1797-1844).⁹ Holder was born in Hunslet, Leeds, and brought up as a collier. At five years of age he drove a gin horse and at eight worked in the colliery itself. Later he became a brickmaker. In Bradford in later years he was also known as an abstainer, bill-poster, fish-hawker, and political poet, somewhat after the fashion of William McGonagall. Perhaps the brickmaking continued, at least notionally, since the Airedale poet John Nicholson wrote the following lines about Holder:

Here sits Reuben Holder, at his old scheming tricks;
Too idle to get clay, and too lazy to make bricks.

His address was variously given as Dunkirk Street or White Abbey, near a brick field. His fish stall was in Kirkgate. Poor Reuben led a hard life, his fame in Bradford bringing him little gain. His son John died appallingly of a brain abscess following an assault by his employer. Two years later Reuben himself was dead. About 30 years after his death the correspondence columns of the *Bradford Observer*, recalling the eccentric rhymes 'with which he was wont to create harmless lights and shadows for the monotonous occupation of brickmaker and bill sticker'.

Field names with brick elements, such as 'brick kiln close', or buildings known as 'Red Hall', are common indicators of brick production and use within West Yorkshire.¹⁰ From place name evidence we can assume that in the late eighteenth and early nineteenth centuries brickmaking was quite widespread in Bradford. By employing early maps and newspapers, I have been able to identify six such sites in the central part of the old borough and two more in the satellite communities of Frizinghall and Wilsden. There may not have been permanent premises on such sites; in Cleveland it was recorded that the brickfields were leased by their owners to itinerant brickmakers who dug clay and fired hand-moulded bricks in 'clamps'.¹¹

The activities of a family called Hudson represent a bridge between these old ways and the fully mechanised brick manufacture that was to come. Several brickmakers of this name are found in the Wapping and Leeds Road areas of the city; I assume that they were part of an extended family. John Hudson is noted as a brickmaker in 1834 when his daughter marries.¹² An 1856 directory records two brickmakers called John Hudson active in the Leeds Road area; there is a local 'brickfield' mapped by the Ordnance Survey in 1852 which may well be theirs. A 'smoke nuisance' abatement notice places a descendant, Pharaoh Hudson, in Leeds Road in 1870 and again in 1873. He is said to have had '13 fires' of an old type with open tops from which smoke issued. These would be Scotch kilns, I imagine. Pharaoh Hudson is one of the few brickmakers whose activities were noted by historians of the city.¹³



Fig.1 An example of an early frogless marked brick manufactured by George Heaton in the period 1856 to 1874. He is believed to have introduced firebrick making to Bradford.

MACHINE PRESSED BRICKS AND HOFFMANN KILNS

In the nineteenth century Bradford's population exploded from 13,264 in 1801 to 216,495 in 1891.¹⁴ This placed great stress on its housing, drainage and waste disposal. Bricks, tiles, chimney pots, 'sanitary-wares', and earthenware pipes were produced in huge numbers as the city expanded. Many brickworks were developed in association with collieries, exploiting both fireclay and brickmaking shales. Powered grinding pans and brickmaking machines became common. By the time of the Ordnance Survey map of 1852 Heaton Colliery was established at Taffy Mire, Shipley, on the land of the Earl of Rosse, being occupied by one George Heaton. The site is listed in the Heaton Rate Book, February 1865, as a 'brick kiln, colliery, etc'. On site there were three kilns of unknown type and a brickmaking shed together with a boiler, an engine shed and a grinding mill house.¹⁵ A shaft allowed access to the Soft Bed seam, 18.5 yards below; a drift or 'day-hole' gave access to the Hard Bed coal and its fireclay seat-earth. Often brick manufacturers identified their products during the pressing process.¹⁶ George Heaton marked his bricks with [G HEATON SHIPLEY] (fig.1).¹⁷

When were the first Hoffmann continuous kilns introduced to Bradford? The Bradford Brick & Tile Co Ltd was a brick manufacturing company which operated at four sites in the city. The company was incorporated on 6 January 1868.¹⁸ Its first directors were Halifax businessmen, with the exception of Israel Thornton of East Parade, Bradford, a city contractor. Its common bricks, marked [BB&T Co Lim] are still a familiar sight throughout Bradford today (fig.2). In the *Bradford Observer* of 10 October 1868 the company was advertising for a manager with a 'thorough knowledge of a Hoffmann kiln', which had been invented less than twenty years before. By 1869 regular advertisements for the company's products started to appear in the *Bradford Observer* asking 17s. 0d. and 21s. 0d. per 1000 for pressed bricks. The company's kiln at Wapping was mapped by the OS map of 1893 and was a Hoffmann kiln of the early circular type.

The archives of the Bradford Industrial Museum contain an article entitled 'A Yorkshire Firebrick Works'. As yet I cannot trace its source but the article described the Wrose Hill Fireclay Co., Shipley, established in 1869 (fig.3). Fireclay was apparently recovered both by drift mining and open cast extraction. The clay was taken to a grinding pan by endless chain; and the works had a Hoffmann kiln with a daily output of 12,000 bricks. In addition to firebricks the



Fig.2 A later product of the Bradford Brick & Tile Company with the brickmark sitting in a frog.

company manufactured common bricks, furnace linings, drain pipes, traps, chimney pots, and sanitary ware. The firebricks were hand-made in brass-lined boxes; it seems that many users found machine-made pressed firebricks insufficiently porous. An illustration showed a team of three working together: a moulder, a planer and a carrier, probably a boy. Common bricks were also made by the stiff plastic process using a 'Fawcett press'; Thomas C. Fawcett was a Leeds firm of engineers famous for its brick presses.

We know precisely what equipment a late-nineteenth-century brickworks would require since there is a recorded valuation for the Manor Potteries brickworks, Eccleshill, which had evolved from an earlier stoneware pottery. The valuation was undertaken for the trustees of the late owner, Mr William Woodhead, in June 1873.¹⁹ The items (total value £8587) listed are: a Manor House which survives to this day, 11 cottages and stables, hay-sheds, engine and pulling gear, machine and drying sheds, boiler house, joiners' and blacksmiths' shop, a chimney 30 yards long, a reservoir, a Hoffmann patent brick kiln and two other kilns, offices, building ground, and a Bradley & Craven self-pressing brick machine.²⁰

THE BRADFORD CONTRACTORS

In the second half of the nineteenth century Bradford boasted a number of large contractors who owned their own quarries, saw mills and brickworks, and who would undertake virtually any constructional or development project. The brickmark [A.NEILL] identifies the products of Archibald Neill (1825-1874) who was born in Scotland and whose large works at Fieldhead, Listerhills, employed 1000 men. He was engaged to build Westgate Station, Wakefield, and also the Grand Hotel, Scarborough. In 1871 Neill was also given the work of straightening the Bradford Beck from Frizinghall to Bolton Bridge, and of constructing a nearby sewage works. A press report stated that a good supply of clay was found during the work and 'bricks were being extensively made on the spot'. Other large contractors also listed in trade directories as brick manufacturers included: J. & W. Beanland, S. Pearson & Son, John Moulson & Sons, and James Wilson & Sons. James Wilson & Sons of White Abbey were accused of causing smoke nuisance in connection with a brick kiln they had erected in Carlisle Road, Manningham. Here we get an insight into the way their brick business operated since the press report stated that the bricks were 'not being made for sale but for use there'.²¹ Six years later the company advertised



Fig.3 A local brickworks in operation at Wrose Hill, Shipley, in the 1930s. A Scotch kiln and two Beehive kilns are visible in the foreground. Mapping evidence indicates that the chimney in the background forms part of a Hoffman kiln.

for masons and bricklayers to build 32 houses in Carlisle Road.²² But life as a contractor was not always easy, and the bankruptcy of this firm in 1891 caused a sensation. The grandsons of the founder, Joseph and Edwin Wilson, had enormous liabilities of £130,072 and assets of only £15,181. The brickyard was worth a mere £7,875 but was profitable. It seems that the sons 'followed their father's course' of erecting shop and house property, while borrowing on mortgages as large a portion of the cost as they could. Depreciation in the value of property, and bad debts, led to the firm's failure. This financial catastrophe has a very modern sound.

In describing the work involved in constructing the Great Northern Railway line from Exchange Station at Bradford towards Leeds, historian Horace Hird mentions the activities of Pearson & Son who took over responsibility for the material excavated from a long cutting.²³ Samuel Pearson, a Cleckheaton brickmaker, purchased the 'great mound' and for the next five years sixty men were employed making drain pipes, chimney pots and bricks from the clay spoil at his Broomfield Works, Mill Lane. It is probable that bricks were not the major product; an advertisement of 1863 also offers vitrified stoneware, sanitary pipes, traps, junctions, and chimney tops. The brickmark for this company was [S.PEARSON & SON BRADFORD]. The works can be identified on the 1871 map of Bradford but closed in 1885 when the 'spoil bank' was exhausted. Samuel Pearson had died, worth £20,000, the year before but his company was already undertaking contracts in many major industrial cities. The firm's success was largely due to the energy of his grandson, Weetman Pearson (1856-1927), to whom Samuel transferred all his personal holdings. Under Weetman's guidance the company evolved into a great international contractor which was particularly associated with the Mexican government. Weetman Pearson was subsequently ennobled as the first Viscount Cowdray.

TABLE 1

BRADFORD: POPULATION INCREASE AND THE SUBSTANTIATIVE DECLINE OF HOUSE BRICK MANUFACTURERS

<i>Decade</i>	<i>Population at start of decade</i>	<i>Number of house brick manufacturers</i>
1860s	118,098	23
1870s	147,101	21
1880s	183,032	19
1890s	216,495	15
1900s	228,628	13
1910s	288,458	
1920s	285,961	11

Sources: Population figures from C. Richardson, *A Geography of Bradford*, Bradford: University of Bradford, 1976. House brick manufacturers for local directories.

AFTERGLOW

Determining the exact number of Bradford brick manufacturers in any decade from trade directory evidence is not easy. After eliminating manufacturers in nearby towns (such as Armitage, Whitaker, and Rushforth), those dealing exclusively in firebricks, and those flickering into life in only a single directory, I arrived at the data provided in Table 1. Despite the declining overall numbers of manufacturers Julius Whitehead still found it possible to develop a new fireclay and brickworks in Clayton at the very end of the nineteenth century. The site of his works is still marked by an ornate chimney and several cottages which exhibit the range of his ceramic products (fig. 4).

The industry's slow decline continued into the twentieth century, and only two manufacturers seem to have survived into the 1950s: Wrose Brow, Shipley, and Birkby at Wyke. No Bradford brickworks escaped final demolition. Henry Birkby had opened the Storr Hill, Wyke, brickworks in 1869. He is said to have lost a hand in a brickmaking machine accident when demonstrating how an employee should work faster. Birkby was active in public life being returned as a city councillor in 1899 before he retired from business. His descendants continued the tradition of machine pressed brick making and it fell to them to own the city's last operating works.

There were several types of brick manufacturer in nineteenth-century Bradford. These included large specialist makers, and contractors who included brickmaking among the production of other building materials. Many sanitary pipe makers also had a sideline in making common bricks, and there remained a few small hand-made brick producers who incorporated brickmaking with another occupation, such as farming or beer selling. Ideally we should have the name of a brickmaker, the name of a works, and a description of the brickmarks, for all manufacturers. Knowledge is seldom as complete as this but attempts to obtain it are an excellent introduction to the excitement of local and industrial history.



Fig.4 Glazed bricks, terracotta and other products of Julius Whitehead's brickworks incorporated into one of the cottages adjacent to his works.

ACKNOWLEDGEMENTS

I am grateful to Ken Kenzie who located and photographed the brick used in figure 1, and also provided me with information from the records of the Parish Church, now Bradford Cathedral. Local historians owe him a great debt for his tireless work on the history of Eccleshill. I also wish to express my thanks to Bradford Industrial Museum for their support of this work and for providing figure 3 which was originally taken in the 1930s by photographer Frank Woodhall.

NOTES AND REFERENCES

1. This figure is given in H. Hird, *Bradford in History*, Bradford: Hird, 1968, p.121.

2. A preliminary account is given in D. Barker, 'Bradford Brick-making: the Mud, the Men and the Mysteries', *The Bradford Antiquary*, 3rd series, **14**, 2010, pp.67-78. At the time of writing I am aware of more than 70 brickworks within the Bradford Metropolitan District in the years 1850-1950 although they were not all producing simultaneously.

3. F. Dickinson, 'The Manor House Pottery at Eccleshill', *The Bradford Antiquary*, 3rd series, **14**, 2010, pp.79-91. The pottery evolved from making

ceramics and stone-ware bottles into a brickworks. It was in existence from 1837 to 1922.

4. Ken Kenzie, personal communication. The magnificent house at Temple Newsam, Leeds, is widely stated to be the first brick building in West Yorkshire, having been constructed a generation or two earlier in the mid-seventeenth century.

5. This agreement is in the collection of the West Yorkshire Archive Service, BCASTST/2/240.

6. The fascinating story of this map is in G. Redmonds, 'A moment in the history of Bradford

Moor', *The Bradford Antiquary*, 3rd series, **1**, 1985, pp.19-23. The map was perhaps evidence in a dispute between Sir Walter Calverley and Mr Marsden, Lord of the Manor of Bradford.

7. William Cudworth, *Round About Bradford*, Bradford: Brear, 1876, p.417. Cudworth is responsible for much of what we know about Victorian Bradford. He was a most able writer and journalist being considered one of Bradford's most distinguished sons.

8. J.V. Stephens, G.H. Mitchell and W. Edwards, *Geology of the country between Bradford and Skipton*, London: HMSO, 1953. This publication is essential reading for those attempting to understand the complex sedimentary rocks of this area.

9. The portrait of Reuben Holder is from W. Scruton, *Pen and Pencil Pictures of Old Bradford*, 1889. pp.233-243. The poetry of Holder would have found echoes in the Chartism for which Bradford was a centre in 1838-40.

10. A brief account of brickmaking is included in R.C.N. Thomas, *West Yorkshire: a noble scene of industry*, Wakefield: West Yorkshire Metropolitan County Council, 1971, p.41 and fig.27. This is an excellent introduction to the industry of West Yorkshire in the post-medieval period.

11. D.W. Pattenden 'Bricks and Mortar', *Cleveland Industrial Archaeologist*, **16**, 1984, p.10. I know the location of Bradford's brickfields but have not been able to find a description of how they were owned and operated.

12. *The Bradford Observer*, 2 October 1834.

13. Hird, 1968, p.173. The spelling of Pharaoh Hudson's first name does appear to be correct.

14. C. Richardson, *A Geography of Bradford*, Bradford: University of Bradford, 1976, p.92. This is an informative and highly readable account of the

city's development.

15. The 1881 Rate Book for Heaton and others in this series are in the collection of West Yorkshire Archive Service, BBT 6/5/5/6.

16. This information is contained in M. Lambert, 'George Lambert: Brickmaker', *Cleveland Industrial Archaeologist*, **16**, 1984, pp.29-33. The author's ancestor had two brickworks. At Linthorpe he made wire cut bricks with no distinguishing marks. At Scorton he had better clay and made facing bricks. These were wire cut and hand-moulded. At the same time they were 'embossed with the firm's symbol'. Throughout this article I have enclosed brickmarks in square brackets for clarity.

17. Ken Kenzie, personal communication. Victorian bricks are commonly found near the city centre which has several undeveloped demolition sites. Naturally bricks may have strayed very far from their places of production.

18. Not many documents have survived from this once large company. West Yorkshire Archive Service, 10D76/3/113 Box 5 contains much of what remains.

19. West Yorkshire Archive Service, 11D74/3/30/34 1873-1886. Under this catalogue number is the valuation and a number of letters concerning Manor Potteries, Eccleshill.

20. Bradley & Craven, Wakefield, was an engineering company famous for brick presses. It was founded in 1843 and continued into the modern era. It supplied equipment to Manor Potteries and Storr Hill, Wyke, and doubtless a great many more local manufacturers.

21. *The Bradford Observer*, 24 September 1868.

22. *The Bradford Observer*, 23 April 1874.

23. Hird, 1968, p.173.

Brick, Tiles, Pipes and Pottery: Nineteenth-Century Cotswold Estate Brickyards

Philip and Dorothy Brown

It was apparently not uncommon in the nineteenth century for some brickmakers also to produce pottery. Edward Dobson, in 1850, wrote that 'the business of the tilery includes the manufacture of tiles for malting floors, chimney pots, tubular drains, and other articles of pottery ...'; and Ann Los, writing on brickyards in East Yorkshire, notes that 'where the clay was of good quality, a potter would be employed to make plant pots ... etc'.¹ In practice, the lack of appropriate records makes it difficult to discover whether pottery was made and, if so, its importance to the economy of a nineteenth-century brickyard. Estate brickyards are often an exception in that details of their activities may be preserved among estate papers. K.C. Leslie and J. Harmer were able to provide an account of the Ashburnham Estate brickyard in Sussex, combining documentary evidence with personal recollections.² Some relevant records are preserved for estate brickyards in the Cotswolds. Did they also make pottery?

THE FOSS TILERY

The brick and tile yard of the Sotherton-Estcourt Estate, known as the Foss Tilery, was immediately beside the Fosse Way at Shipton Moyne, between Tetbury, Glos., and Malmsbury, Wilts. Between the 1850s and the 1890s, it supplied bricks, tiles, drainage pipes, and simple pottery (mainly in form of flower pots) to the estate and other local customers. It had been functioning from at least 1853 when estate accounts mention the tilery, as well as the purchase of new moulds (presumably for bricks and tiles) and payments to J. Turner.³ He cannot be identified in the 1851 census returns for Shipton Moyne but, in 1861, John Turner is listed as a 38 year-old brick and tile maker. His five-year-old daughter had been born in Shipton Moyne, but he and his other children were born at Butleigh, Somerset, where his clayworking skills could have been acquired.⁴ By 1871, Turner was shown as 'foreman of brick manufactory', employing what appears to be one boy (but the entry is unclear). No other clayworkers appear in the census returns, but unskilled work may have been done by general labourers employed by the estate; and seasonal, part-time, or casual workers in a brickyard were often not recorded in census returns, particularly if female.⁵

Summary accounts for the Foss Tilery between 1859 and 1875 show it as a small concern with an average annual profit of about £48, the figures fluctuating between a profit of £130 in 1865 and a loss of £19 in 1860. In the 1870s, the tilery was becoming generally less profitable, accounts for 1874 showing a loss of 3s. 10d. (three shillings and ten pence), while in 1875 there was a profit, but of £2 11s. 0d. only.⁶ To the estate, the tilery was presumably a convenient source of supply rather than of profit, so it was decided to rent it out. In May 1845 Turner was offered the tilery at £20 a year; and in November he agreed on a rent for the tilery of £15 per annum, and a further £6 to rent equipment valued at £106 13s. 6d. and including brick, tile, and pipe-making items and two potter's wheels. No mention was made about clay digging nor royalties but, while products were to be sold to the estate at the same prices as to others, the estate was to have priority of supply if there were shortages.⁷

Turner relinquished the tilery in 1880. In May there was a valuation of stock 'belonging to Mr. Turner'; and he ceased to appear at the Foss Tilery in the 1881 census.⁸ That address was occupied by Henry Smith, a brick and tile maker aged 31, born in Swindon, Wilts. His one-year-old son was born in Swindon but his five-month-old daughter in Shipton Moyne. The estate had

again assumed control of the tiliary and, in 1882, Smith was taken on as Foreman Manager to 'carry on' the Foss Tillery. He had been employed for a number of years at Lord Suffolk's Brick and Tile Yard.⁹ This was the brickyard of the Charlton Estate, near Malmsbury, which is discussed below.

Smith specified prices for 'making and burning' various bricks, tiles, and drainpipes, for example, common bricks at 10 shillings a thousand with a selling value of £1 5s. 0d.; and pantiles at £1 2s. 0d. per thousand for selling at £2 15s. 0d. His price for digging clay was 2s. 0d. for sufficient to make 1000 of 'any class of article' mentioned in his quotations. But it was noted that 'Smith thinks that socket pipes and flower pots cannot be made to advantage and has not given a price'. However, flower pots continued to appear in the accounts.

A new kiln was built in 1881, and, in 1882, samples of clay were taken for testing at Gillingham Pottery, Dorset, and a experienced potter visited Foss Tillery to give advice. Having again taken control, the estate checked the 'going prices' of good supplied by neighbouring brickyards. The files include an 1881 price list of George Tanner's Brick, Drainpipe, Tile and Lime Works at Rodbourne, about 6 miles away in Wiltshire; and a longhand list of 'making' and 'selling' prices of chimney, seakale, rhubarb and flower pots from James Tanner at Acton Turville, only a few miles further away.

A trade card of 1861 showed the Foss Tillery price list which included bricks, tiles, crease, draining pipes, collar pipes, socket pipes, flower pots, sea-kale and rhubarb pots, propagating pans and vases; and a list for 1882 showed little change. Items actually supplied by the Foss Tillery are recorded in a ledger which runs from 1871 until 1892. We have no evidence of the tillery functioning after this date.¹⁰ Table 1 shows figures extracted for the calendar years 1871 and 1872, and for 1883 and 1884. Production was small and highly variable. In 1871 and 1872 supplies of bricks and tiles were almost wholly to the estate and one local builder. In 1883 and 1884, sales of bricks were to several builders and private residents, all close to the tillery except for one of 9000 bricks supplied to a builder in Gloucester, a little over 20 miles away. Draining pipes were supplied almost exclusively to the estate. According to the prices shown in the ledger, the goods supplied to customers other than the estate represented 56 per cent of the total value in 1874, and 69 percent in 1884.

Production of flower pots at the Foss Tillery was intermittent and on a small scale. The total number supplied in the 21 years covered by the ledger was recorded as 11,510 only, the largest numbers being supplied usually from February to April. The crude number of pots is a misleading index of productivity as they ranged in size from diameters of 2 to 18 inches (50 mm to 450 mm), the skill required rising steeply with the size of the pot. The different sized pots were also required by different customers. Mr Fraser, a nurseryman in Malmsbury, received the second largest number of pots after the estate, but they were of smaller sizes. Of 7691 pots supplied to the estate, 1930 (25%) were 7 to 18 inches in diameter. Fraser received 1764 pots of which only 12 (less than 1%) were sized 7 to 18 inches.

Lesser numbers of pots were supplied to the lord of the manor of nearby Easton Grey (648), the rector of Shipton Moyne (384), the occupants of two large houses in the neighbourhood (200 and 192), a local builder (136), an 'ironmonger and implement agent' (120), and a local brewer (100). Another fourteen customers purchasing less than 100 pots included unidentified individuals, farmers, and a stud groom. Only a small number of the flower pots were sold with saucers, and some saucers were sold without pots, perhaps for an alternative use. Chimney pots, seed pans, sea kale and rhubarb pots and vases were supplied in very small numbers. The value of the flower pots, according to the prices shown in the ledger, was only 2.6% of the total value of all goods supplied in 1874, and 6.7% in 1884.

Over the years covered by the ledger, several customers bought flower pots only once. Among possible explanations would be that there were other equally satisfactory and accessible

TABLE 1
DATA FROM THE FOSS TILERY LEDGER
 Items supplied (rounded to thousands) and to whom

YEAR	BRICKS	TILES	DRAINING PIPES	FLOWER POTS
1871	20,000 62% to estate 37% to builder	48,000 36% to estate 64% to builder	120,000 96% to estate	None
1872	33,000 36% to estate 64% to builder	88,000 25% to estate 75% to builder	6,000 96% to estate	None
1883	132,000 2% to estate 59% to builders	5,000 6% to estate 74% to private residents	47,000 99% to estate	See text
1884	58,000 32% to estate 49% to builders	500	3,000 63% to estate	See Text

suppliers of flower pots. Large specialised producers might use the railways to reach wide markets, but the small nineteenth-century makers probably delivered by horse and cart within a limited range. This could lead to numerous small makers, many not far from one another. Within 10 miles of the Foss Tilery, three alternative sources of flower pots have already been mentioned: the Charlton Estate brickyard; James Tanner's Brick and Tiles Works at Acton Turville which quoted prices for flower pots and other horticultural pottery; and the Rodbourne works which advertised flower pots as well as bricks and tiles. Luckington Pottery, discussed below, may also have been in this category. The occurrence of five possible suppliers near one another may have been peculiar to the area for local reasons, but may be found if looked for elsewhere.

CHARLTON ESTATE BRICKYARD

For a limited period, in 1883 and 1884, there are records of the goods supplied by the brickyard of the Charlton Estate of the Earl of Suffolk and Berkshire, situated in the village of Garsdon, near Malmsbury.¹¹ It was probably started at much the same time as the Foss Tilery as it is not shown on the 1840 tithe map for Garsdon, but one brickmaker was listed there in the 1851 census and, by 1861 there were three. Records refer to 'Beale' who apparently ran the yard: David Beale appears as a brickmaker in the 1881 census for Garsdon, and as foreman of the brickyard in 1891. During the 1890s the estate apparently ceased being directly responsible for the yard, a schedule of the estate for 1898 shows J.E. Ponting occupying the brickyard.¹² Directories list him as a builder's ironmonger and implement agent in Malmsbury, but Kelly's *Directory of Wiltshire* of 1889 also records him as a maker of bricks, tiles, pipes and flower pots, seed pans and rhubarb and sea kale pots at Garsdon Brickyard.

The estate accounts for 1883 show the rounded numbers of items supplied to the estate

as follows: various bricks, 15,000; various tiles, 8,000; draining pipes of various diameter, 21,000; and 14 chimney pots. Items supplied to customers other than the estate are listed but their numbers are often not shown. Where the number of bricks are stated, the total supplied to other customers is 17,000, so the full total cannot be less than this. No flower pots are specified as supplied to the estate but in the brickyard accounts are entries of unspecified items, valued at £6, supplied to the estate gardens which may represent the supply of horticultural ceramics. In 1883, flower pots and saucers were supplied to five other customers including the Dowager Duchess, the local rector and another clergyman, the Hon. R.H. Eden of Heytesbury, Wilts., and one unidentified; but the numbers are not specified.¹³

OTHER NINETEENTH-CENTURY ESTATE BRICKYARDS

Records of production are not available for another small estate brickyard in the Cotswolds at Salperton, a village between Andoversford and Notgrove. The *Post Office Directory* for 1856 shows Thomas Beale Brown, of Salperton Park, the lord of the manor, as a brick and tile maker 'at his Brick, tile and Pottery Yard': plans for the East Gloucestershire Railway in 1861 and 1873 show the brickworks and kilns at the northern end of the village.¹⁴ The *Victoria County History of Gloucestershire* suggests that Brown had started the brickyard to provide work for local people,¹⁵ but the census returns for Salperton in 1851 hardly support this. These list no potters but five brick and tile workers, all as lodgers and at least three born in Essex. They were hardly 'local people', but it was probably necessary to import clayworking expertise to start up the enterprise. Any locals employed were probably unskilled, part-time and casual workers, again not recorded by the census. The 1861 returns show four brick and tile workers, all born in Essex but now as heads of households or sons of heads; but again there were no potters. In the 1871 census there are no clayworkers in the village. The only indication that pottery was produced at Salperton is the entry in the 1856 directory.

Also in the Cotswolds, the brickyard at Acton Turville, near Badminton, was listed in Slater's and Morris' 1876 directories as that of James Tanner, brick and tile maker or manufacturer. At some time earlier it was probably the brickyard of the Beaufort estate. In 1854, Tanner took the let of the Tilery 'belonging to his Grace' and undertook to supply the duke with bricks and draining pipes at specified prices.¹⁶ The inventory of the tilery at this time did not include a potter's wheel but, as already noted, Tanner would later quote prices for horticultural pottery. Pottery production is also suggested by the 1871 census returns for Acton Turville which show one red-ware potter and one brickmaker, but not James Tanner. He is shown in 1881 and 1891 as a Brick and Tile Manufacturer resident in the village of Luckington, just over the Wiltshire border and adjacent to Acton Turville. The 1881 census of Luckington also shows a 26-year-old man recorded by the enumerator as a potter, but this description is crossed out in a different hand and 'Brick and Tile' substituted. The alteration was presumably made by the registrar 'tidying up' the returns, but fits very well with the idea of a potter working in what was considered to be primarily a brickyard.

In the 1891 census, Tanner was accompanied by only one brickmaker, but in Kelly's 1915 *Directory of Wiltshire* Tanner is listed as a Pottery Manufacturer in Luckington. A pottery was working there in the early twentieth century and there is a vague local memory of earlier brick and drainpipe making.¹⁷ It is possible that separate brickyards were functioning in the late nineteenth century at both Acton Turville and Luckington, or they may have been run by Tanner as a single concern. Whatever the situation, it seems that pottery was also of importance.

An estate brickyard on the edge of the Cotswolds, near Cheltenham, was on land at Lower Pilford, Charlton Kings, owned by the Walsingham estate based at Merton, Norfolk.¹⁸ In 1878, G.W. Sadler, Borough Surveyor of Cheltenham, reported to Lord Walsingham on the

suitability for brickmaking of clay from Lower Pilford, and sent samples to Merton for test firing. It appeared suitable, but Sadler could find no one willing to start a brickyard and pay royalties to the estate. The next year, Lord Walsingham sent his agent and a brickmaker from Merton for further exploration, and they found, higher up the hillside, a far better clay than that sampled previously; and they reported that Cheltenham required about six million bricks a year and there was a potential market for facing bricks which currently had to be obtained from distant yards.¹⁹ In 1879 the estate started its own yard, worked by men sent from Norfolk and managed by Sadler.²⁰ In 1910, L. Richardson and R.J. Webb noted that it produced good face-bricks, as well as moulded bricks, tiles, and drainpipes; but its common bricks were less successful.²¹ Strong competition from Battledown Brickyard, not far away, presented problems for the Walsingham yard which, in some years, ran at a loss — of £187 in 1885, for example. After struggling for some years the estate sold the brickyard around 1895 and it was demolished by subsequent owners in 1907.²²

An inventory of stock at the end of 1884 showed rather less than 700,000 bricks of various sorts; nearly 2000 red tiles valued at 37s. 0d. per thousand; and over 3000 special tiles, described as Glazed, Garden, and Glazed Garden tiles, all valued at 45s. 0d. a thousand, and apparently a significant item of production. But at the end of 1885 the numbers of special tiles in stock was identical to those of the previous year, suggesting that they were the same items unsold. Stagnation in the sale of specialised tiles is also suggested by the 1885 accounts of George Hunt, the foreman, which show only brick production; and in 1886 it was noted that 'Hunt is now wholly employed in making pressed bricks'. Accounts for the first three quarters of 1886 also show only bricks being made.²³ Some of the glazed tiles may have been of many colours, as among the estate papers is one headed 'Pilford' and 'Glazes for Tiles' with recipes for white and a range of colours.²⁴

BRICKS AND POTTERY

At Shipton Moyne and Garsdon brickyards, in a region rich in good building stone, production was on a small scale and appeared to be primarily to supply the needs of the estate. Their passing in and out of the direct control of the estate is similar to the situation described by Alan Cox in Bedfordshire.²⁵ The importance of brickyards to the estates is reflected in *Middlemarch*: when Caleb Gaunt is appointed as agent to improve a neglected estate, one of his first thoughts is of where he might find clay to make good bricks to 'cheapen the repairs'. The author would have appreciated the situation, her father being agent for a landed estate. Actual estate cottages are discussed by David Kennett.²⁶ Lord Walsingham's intentions at Lower Pilford were different, his main estate being far away, but Cheltenham's appetite for bricks seems to have been his incentive.

Pottery was produced at both the Foss Tilery and Garsdon, but in very limited amounts, of little commercial importance. Flower pots can certainly be classed as pottery, as even in 1920 it was commonly believed that they had to be hand-thrown on a wheel to preserve essential porosity which was destroyed by mechanical production.²⁷ The glazed tiles of Lower Pilford, particularly if coloured, may have been classed as pottery. What else brickmakers considered to be "pottery" seems usually to be taken for granted rather than defined. Early in the twentieth century, A.B. Searle was unhelpful in this matter. After offering definitions of brick, terracotta and pottery, he admitted that the overlap of meanings 'may appear confusing' and fell back on the assurance that it was 'not difficult for a practical clayworker to decide in which of the three categories ... a given article should be placed'.²⁸ The degree of preparation needed for the clay may have been an important factor. Flower pots, for example, could sometimes be made in the brickyard from the brick clay without further treatment: or the claypit might yield different clays

in separate layers, some suitable for bricks and others for tiles or flower pots.²⁹ Alternatively, pottery might be made from brick clays by washing to separate coarser particles while the finer were collected after settling.³⁰

There was no indication in the samples of estate accounts that glazed domestic wares were produced nor that any of the flower pots supplied were decorated or glazed. The basic pot was clearly in demand, but a more elaborate container might be needed if plants were to be displayed. Shirley Hibberd, advising on *Rustic Adornments for Houses of Taste* in 1856, thought that a common flower pot was 'scarcely as gay a thing' as should be in a showy position, but should be placed inside a more elegant pot, separated by a layer of moss.³¹ The 'vases' mentioned occasionally among the estate yards' products may have been to provide this more elegant pot. There may have been a good market for simple flower pots in the second half of the nineteenth century, but this was probably not the reason that these estate yards produced them; rather it was that they were needed by the gardens of the estates themselves, just as chimney pots would be needed for estate buildings and repairs. The Foss Tilery supplied the greatest number of flower pots to the estate gardens, as the Ashburnham brickyard was also reported as doing. The Duke of Bedford's estate brickyard at Husborne Crawley, while operating a 'lucrative public trade', also produced chimney and garden pots.³²

The small estate brickyards discussed here can hardly be taken as representative of brickyards in general; but 'pottery' production was of at least marginal importance in some brickyards run on a commercial scale. In Gloucestershire, for example, the Stonehouse Brick & Tile Co. Ltd., which started operation in 1891, was described in Kelly's 1897 directory as carrying on 'a large business in bricks, tiles, pottery, and terracotta'. Company accounts show the yearly average value of bricks and tiles sold from 1892 to 1896 was £4337, while that of 'pottery' was £145, *i.e.* only a little over three percent of the total.³³ Early in the twentieth century, the Aston Magna Brick & Tile Co., though run by the Batsford Estate from 1901 to 1910, was on a commercial scale.³⁴ It was claimed in the prospectus of the company which took over the works that in the six years ending 1909, the estate yard had sold bricks to the value of £29,715 and 'pottery' to the value of £2104, *i.e.* about seven percent of their combined value.³⁵ In neither case was 'pottery' defined, but the *First Census of Production* in 1907 attempted to be more specific.³⁶ Firms classified in the 'Brick and Fireclay Trades' reported a combined output 'of Bricks, of Brick-Earth and Fireclay' valued at £6,329,000. They also reported production by the same firms of 'goods chiefly manufactured in other trades', one items of which was 'Red Pottery, Stoneware, Brown and Yellow Ware' to the value of £240,000.

Flower pots seem to have been commonly a product of this ceramic diversification in brickyards. By the end of the nineteenth century, the listings of trade in directories sometimes had a separate heading for Flower Pot Makers. A sample³⁷ of Kelly's county Directories of England and Wales published in the 1890s and 1900s showed 32 businesses listed as flower-pot makers. Of these, seventeen were also listed as brick and tile makers, and fifteen were not.

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Book Notices: Brick and Railways in Victorian Nottingham

Recent publications brought to the society's notice have included three volumes looking at the history of brickmaking in Nottingham and the connections there with the development of a specific railway. The notices which follow are by two members of the British Brick Society who have specific interests in Nottingham and railways.

DHK

1. David G. Birch, *The Story of the Nottingham Suburban Railway, Volume 1: Conception, Construction, Commencement*, Nottingham: BookLaw Publications, 2010, 92 pages, with line illustrations and photographs ISBN 978-1-907094-98-9, price £19-99, plus £2-50 post and packing.
David G. Birch, *The Story of the Nottingham Suburban Railway, Volume 2: The Operational Years* Nottingham: BookLaw Publications, 2012, 124 pages, with line illustrations and photographs ISBN 978-1-907094-36-1, price £19-99, plus £2-50 post and packing.
Both volumes available from
BookLaw Publications, 382 Carlton Hill, Nottingham, NG4 1JA

David Birch's first interest in the Nottingham Suburban Railway (NSR) stems from his time working as a civil engineer in Nottingham — besides a B.Sc.(Hons), David is a Member of the Institution of Civil Engineers (MICE), a Chartered Engineer (C.Eng.) and holds an MBA degree. As Site Agent for a major road improvement scheme he was responsible for the demolition of a railway tunnel portal. During these works, a small unmapped tunnel was "discovered". Research revealed that this was part of a brickworks siding, connection to what was once a very large and important part of the former Nottingham Patent Brick Company's Carlton works.

That was in 1983, and David's life-long hobby since then has been researching the NSR. With volume 2 of his research just published, a book review seems in order.

Whilst both volumes are principally written for the railway enthusiast, any researcher into brickmaking history soon realises that the rise of brick manufacture throughout Great Britain in the nineteenth century was heavily dependent on the construction of the Victorian railway network. Construction consumed vast quantities of brick, and then provided an expansion into markets hitherto almost impossible to reach, and this has shaped the brick industry as we know it today.

The NSR was a minnow in overall railway development, opening in 1889 and closing in 1951. However, its interest for the brickmaking historian lies in the real reason for its existence, not principally for passenger traffic, but for its connection into the main manufacturing sites for the then Nottingham Patent Brick Company. In this respect it may be unique, as the people who promoted and arranged the finance for the railway's construction, becoming its first directors were also directors of the brick company formed in 1867, and they were looking beyond Nottingham for new markets and expansion. With rail connections provided to both Carlton and Mapperley brickworks, and then to the national rail network, these two works were able to supply major projects as far afield as London including the Midland Railway's St Pancras Station and the Midland Grand Hotel and the many miles of London's sewers. Coal, used for firing the kilns, and other heavy materials could also be imported into the works at much reduced costs.

One of the people involved, who merits a special mention, is Edward Parry, who was appointed as Civil Engineer for the project. The books contain original prints of his design and costing for the siding discovered in 1983. Edward Parry later became the principal civil engineer for the Great Central Railway's Annesley to Rugby extension, the northern section of its 1890s line into London, and a managing director of the Nottingham Patent Brick Company.

With determination for research and detail, an overall very interesting series has been produced, with, for the brickworks historian, a fascinating insight into the whole subject of bricks and railways.

With the NSR long gone, the successors to the Nottingham Patent Brick Company are still flourishing in Ibstock's Dorket Head factory.

MIKE CHAPMAN

2. David G. Birch, *The Story of the Nottingham Suburban Railway, Volume 1: Conception, Construction, Commencement*, Nottingham: BookLaw Publications, 2010, ISBN 978-1-907094-98-9, price £19-99, plus £2-50 post and packing.

The Nottingham Suburban Railway (NSR) was built 1887-89 to link the Great Northern Railway's Nottingham to Grantham line with the same company's Derbyshire Extension Railway. Running from Colwick to Daybrook Junction, it was only about 3¾ miles long.

The NSR is probably the only public railway in Britain to have been built with the primary aim of serving brickworks. Chapter 2 of the book is, indeed, devoted to the birth of the Nottingham Patent Brick Company (NPBC), formed by Edward Gripper. He acquired the Top Yard Brickworks at Mapperley, Nottingham in 1852. In 1867 this was amalgamated with William Burgass's Thorneywood brickyard to form the NPBC, with Gripper and Burgass as two of the three managing directors. Following this, one of the first Hoffman continuous-firing multi-chambered kilns to be built in Britain was erected at the Mapperley brickworks in 1868.

The NPBC produced a wide range of wire-cut and hand-pressed bricks, with output reaching 27 million bricks a year. Of course, Gripper's firm is most renowned for supplying bricks for the Midland Railway's London terminus and hotel at St Pancras. However, as the brick company's reputation grew, the lack of a rail connection became an increasing problem. By 1885 Gripper was a leading citizen of Nottingham, having served as Lord Mayor in 1880-81. So, in that year, he, together with a group of local businessmen, nearly all of whom had vested interests in the NPBC, conceived the idea of building the NSR, which would serve both the firm's brickyards.

Edward Parry was appointed as the engineer responsible for constructing the line. Not surprisingly, the red bricks for the rear of the structures and for station buildings were mostly supplied by the NPBC, although some were supplied by the Normanton Brick Company. However, the large number of blue engineering bricks required for the bridges, tunnels, and retaining walls *etc.*, including decorative specials came from the Hathern Brick Company's Cliff Works, near Tamworth. A notable feature built of these bricks and illustrated in the book is a massive arched retaining wall at Thorneywood, 176 yds (161 m) long and 25 ft (7.6 m) high.

There was a third, smaller brickworks, owned by the Nottingham Builders' Brick Company, to the south of Thorneywood Station, and the Sneinton Tunnel was constructed below it in order to avoid this company's workings.

The NSR closed in 1951 and most of its structures were subsequently dismantled and demolished.

Among the many other black-and-white illustrations in the book are: Edward Gripper dressed in his mayoral finery; an aerial view of the Mapperley Works, showing its two circular

Hoffman kilns; a view of one of these kilns; the NPBC manager's house; and a general view of the Thorneywood brickworks, again with a circular Hoffman kiln. In addition, extracts from the 1915 Ordnance Survey 25-inch maps show the layouts of the three brickworks served by the line.

ALAN COX

3. Jeffrey A. Sheard,
Clay Stealers to St Pancras Station: A History of Nottingham's Brickmakers,
96 pages, with maps, plans, and photographs,
A Gladstone Historical Society Project, September 2011,
ISBN 978-1-61364-347-1, price £17.95, softback
Available from Russell Press, Russell House, Bulwell Lane, Basford,
Nottingham NG6 0BT

Jeffrey Sheard is a member of the British Brick Society and has spent his working life in the building trade in and around Nottingham. Whilst always having an interest in Nottingham's architecture, his interest in brickmaking was inspired by visits with his father to several haulage yards, with the yards being in redundant brickworks' sites. Having taken early retirement, and by way of many hours spent in local libraries, he realised that whilst brickmaking had been a significant industry within the City of Nottingham, no one had ever written a book about it.

In his acknowledgements, Jeffrey notes the assistance given by a number of members of the British Brick Society.

The book's focus is on the Mapperley district of the city, as being the main area of activity, with the geology, good brickmaking clays, and relative ease of extraction starting off a series of small cottage operations, that were then able to expand to meet the tremendous need for brick during the industrialisation and expansion of Nottingham and its environs. The book also demonstrates very well that the period of crucial expansion of the brick industry was only made possible by the Victorian entrepreneurial spirit and the brickmaking expertise of a small number of people, who whilst driving this expansion, also rose to high office in local government and were shining examples of another spirit of the age, Victorian Philanthropy.

Through a fine series of old maps, photographs and drawings, the former sites of brickmaking in Mapperley and adjacent Carlton have been detailed, together with technical explanation of the evolving methods of manufacture, and of the various companies involved, with the principal one, and sole survivor, the Nottingham Patent Brick Company, through its successor, Ibstock Brick.

The book also explores the creation and fortunes of the Nottingham Suburban Railway, which was built not with passenger traffic in mind but to connect the two main works of the Nottingham Patent Brick Company to markets all over the country, with London being the most important.

The intriguing title refers first to the practice in the late seventeenth century of gangs of itinerant brickmakers setting up camp on Mapperley Plains, areas of common land, where they dug clay without authority, and then to the supply of 'Best Nottingham Red' facing bricks for the building of St Pancras Station and the adjacent Midland Grand Hotel.

The book is highly recommended as being a very well researched and fascinating work on an industry which flourished in the Victorian Age and is now largely built over and almost invisible.

MIKE CHAPMAN

BRICK IN PRINT

Between January and March 2012, members of the British Brick Society received notice of a number of publications of interest to members of the society. 'Brick in Print' has become a regular feature of *British Brick Society Information*, with surveys usually two or three times a year. Members involved in publication or who come across books and articles of interest are invited to submit notice of them to the editor of *BBS Information*. Web sites may also be included. Unsigned contributions in this section are by the compiler.

TERENCE PAUL SMITH

1. Cany Ash and Robert Sakula, 'Language Lessons',
Architectural Review, **1380**, February 2012, pages 48-57.

You 'wait for ages for a thoughtfully ornamented building, and then two ... come along at the same time' (p.50). One could hardly improve on that witty introduction to a discussion of two recent school additions: at Spa School, Bermondsey, London SE16, by Agents of Change (AOC), and at Brentwood School, Essex, by Cottrell & Vermeulen. They are very different institutions, the first a school for autistic children, the second an independent secondary school. But the problem facing both practices was the same: to add sympathetically to existing brick buildings whilst avoiding pastiche. The solutions are also similar, picking up on the earlier architecture and producing some remarkable brickwork. Both have much to teach about the 'language' of brick: hence the title of the article.

At Spa School the new building, roughly square in plan, occupies the space between 'a typical Victorian board school, all multi-colour brick, big windows and repeated gables' and a very recent 'lumpy sports hall' with a shallow curved roof (p.50). The new street frontage echoes both buildings in its two triangular gables of different pitch and its one segmental gable. The lower third or so of this is plain red brick, but above this yellow brick is used with red brick jambs to some (but not all) of the windows and an overall pattern of small, widely spaced crosses of recessed red bricks, each of a stretcher with a header above and below. At various points are tall rectangular ventilation zones formed by omitting headers in alternate courses. It is an attractive composition, marred only by two expansion-joints. The rear of the building shows similar gables but is entirely of red bricks. Variety is subtly imported by two types of pointing and by arranging one of the three faces in a canted plan, which also disguises one of the expansion-joints. There are also some ventilation zones formed as on the front face. The interior is mostly plastered, though there is a little exposed brick: in the central stairwell, squares of red against yellow brick ascend diagonally, echoing the rise of the red metal staircase itself.

Brentwood School comprises buildings of various dates. Otway House was built as a vicarage in 1877-78 and was extended in 1928. It has been refurbished as a Sixth Form classroom block to the north and an assembly hall (for the whole school) to the south. The classroom block is of red brick with an overall diaper of black brick, including some extra-large lozenges. This patterning does not respect either the corners or the window-openings of the building; in this regard, 'it is intensely modern and owes more ... to Denise Scott-Brown [*recte* Scott Brown] than to William Butterfield' (p.56). The large ventilation shafts are decorated with diagonal bands of brick chequerwork. The diaper of the walls is even extended to the red and brick tiled roofs, and 'apparently the tilers so enjoyed forming the pattern that they even ran it within the valley roof slopes where it had not been asked for' and where it cannot be seen (p.56). As at Spa School, the interior is mostly plastered, although there is a little exposed brickwork with a chequer of black on red.

The assembly hall has tall gables — four to north and south, two to east and west — which do not follow the actually flat-roofed structure. Lower portions show diaper patterns of varying sizes, and including some solid lozenges, mostly of black against red, although in some places other colours are also introduced. In the entirely red brick gables, a complex diaper pattern is achieved by criss-cross projecting brickwork bands of different widths.

At both locations, the bricks are laid with great skill, and we must be as grateful to the bricklayers (and the tilers at Brentwood) as to the architects. The subheading beneath the title claims, almost oxymoronically, that the buildings ‘reaffirm ... the lost art of ornament’ (p.49): since it has been so consummately ‘reaffirm[ed]’ in these structures, it has clearly — and happily — not been ‘lost’ at all!

2 Clive Aslet, ‘Can the Chilterns keep their charm?’.

Country Life, 8 February 2012, pages 56-61.

In the eighth-century Tribal Hideage the *Cilternserna* were rated at 4,000 hides, an assessment unique in the document. The lands stretched south-west from the Bedfordshire-Hertfordshire border at Chiltern Green — the Midland Railway had a station of this name which just about survived into the British Rail era — to the River Thames at Goring. Acknowledgement of the Bedfordshire portion of the Chilterns is pleasing even with the eastern section now covered by the urban sprawl of Luton (box, p.61). The Chiltern Hills are linked on its northern escarpment by the Icknield Way, an important prehistoric and Anglo-Saxon trade route, and now a designated long distance path.

As the article acknowledges, the earliest housing was timber-framed: chalk, sometimes known as Totternhoe clunch, weathers very badly as an external stone but carves easily for monuments inside a church: witness the screen between chancel and north chapel in St Mary’s church, Luton, erected by John, Lord Wenlock, in 1461 as the burial place of his wife, Elizabeth Danvers, and putatively for himself. Beyond wood, medieval builders might use flint for the churches but only sparingly for dwellings: the earliest part of Hampden House is a rare example. Those patrons who could afford it soon turned to brick: Wenlock’s own Someries Castle, begun in 1448, being just one of several pre-Reformation brick houses in the region which stretches diagonally from east of Luton Hoo — where there was another, demolished and as yet poorly understood, early brick house — across north Hertfordshire, south Buckinghamshire, and the southern edge of Oxfordshire. The last-named had a long-standing brick industry in Nettlebed, where a later kiln survives, and accounts of 1416-17 record brick being used in building work at Stonor Park. And at Wooburn, Bucks., a manor of the bishops of Lincoln, one of the fifteenth-century occupants of the see, probably John Chedworth (bp.1452-1472) whose principal residence it was, built a brick wing demolished in 1750.

By the seventeenth century, brick was being used by wealthier craftsmen and farmers for their houses: Aslet illustrates the village of The Lee, Buckinghamshire (p.58). In the same century, the region was also a cradle of both dissent and recusancy: puritans like John Hampden rubbed shoulders with Roman Catholics like the Stonors of Stonor Park. Long established in their country, these squires could put aside religious differences when it came to building and choose the same external material: brick. Much had been done in the second half of the sixteenth century: Griffith Hampden’s rebuilding of Hampden House included a Brick Parlour. More new brick building occurred in the late seventeenth century: additions to Hampden House and the rebuilding of Bradenham Manor are Buckinghamshire examples.

Even in the nineteenth century, stone was used only by those with sources of income beyond the Chilterns: a *parvenu*, as far as the area is concerned, the Duke of Sutherland, built in stone at Cliveden, Bucks., in 1849 with Sir Charles Barry as his architect. Coal and a million

acres elsewhere were the economic base of the Leverton-Gower fortune. A generation earlier, between 1808 and 1820, the Duke of Bridgewater whose wealth came from coal and canals around Manchester employed the Wyatts, uncle and nephew, to build in stone at Ashridge, Herts.: the Edgertons had been there since 1680. But others established in the region even for a single generation preferred brick: Benjamin Disraeli had E.B. Lamb first remodel and then extend his 1847 purchase, Hughenden Manor outside High Wycombe, in brick.

High Wycombe is one of several towns in the Buckinghamshire Chilterns with a civic building in brick. Given by Lord Shelborne, the Guildhall was erected to designs of Henry Keene in 1757. At Amersham (p.60) the building was given to the town in 1682 by Sir William Drake of Shardloes. Both have an open area for the market beneath the council room. The grammar school met in the room above the market space in the Town Hall at Watlington, Oxon., given to the town in 1665 by Thomas Stonor.

D.H. KENNETT

3. Roger Bowdler, 'Babylonian Luxury: Port Lympne, Kent',
Country Life, 11 January 2012, pages 34-39.

Port Lympne was the creation of two architects, neither of whom stands high in the appreciation of the standard histories, at least those written from the perspective of the Modern Movement. Equally, it was built for a politician, Sir Philip Sassoon, the third baronet, whose second cousin, the poet Siegfried Sassoon, is today rather better known. For Port Lympne, built either side of the Great War, Sassoon engaged first a relatively young Herbert Baker (1862-1946), then recently returned from his lengthy and successful sojourn in South Africa, and in the 1920s a similarly relatively youthful Philip Tilden (1887-1956) to construct a political *pied-à-terre*.

Baker created a house suitable for political entertaining: Sassoon was the local MP and a man of importance in political circles from the 1910s to the 1930s. The brickwork is very well done, with perpendics lining up with military precision (see fig. 2). Baker was a Man of Kent and knew his native county well but could combine its vernacular with the Cape Dutch style he had developed in South Africa (figs.2 and 5). Political considerations in 1920 — the need to receive a high-level French delegation to discuss the terms of German reparations in the aftermath of the war — emboldened Sassoon to extend the house. In addition, the interiors were refurbished and the garden remodelled, work which continued for over a decade: in 1930, Rex Whistler created the Tent Room (fig.4).

Now part of the Aspinall Foundation, the house is open to the public.

D.H. KENNETT

4. [Christopher Catling], 'Restoring Wolsey's Roman Roundels',
Current Archaeology, 262, January 2012, pages 10-11.

When Thomas Wolsey, Archbishop of York, built the first phase of Hampton Court Palace, later given to Henry VIII, who continued building, he applied to some of its red brick faces a series of terracotta roundels. Hampton Court was started in 1514, and in 1521 Wolsey presented a request for payment from the maker of the roundels, the Italian artist Giovanni da Maiano (*fl.* 1515-1520s), whose family had a workshop in the hills above Florence. Terracotta is a durable material; but these examples are some five centuries old, and exposure to the weather had taken its inevitable toll. They have now been restored by Historic Royal Palaces. Three colour photographs illustrate one of the roundels before, during and after restoration; the last shows how beautifully the work has been carried out.

But there is even more: examination and fabric analysis have established two important

points. First, although the figures within the roundels have always been taken as Roman emperors, 'it now appears that they are more likely to be martial worthies, such as Scipio [237-c.183 BC], Pompey [106-48 BC], Julius Caesar [c.100-44 BC], and Alexander the Great [356-323 BC]'. (The last-named, incidentally contradicts the use of 'Roman' in the title of this piece.) Second, the suggestion sometimes made that the roundels were imported from Tuscany has now been disproved, confirming what some of us have long suspected: 'scientific analysis of the fabric reveals that the roundels were made ... in England, using the same London clay as the palace itself and many [another London] Tudor brick building ...'; da Maiano was indeed in London at the time.

This is a short news item, and one hopes that there will, in due course, be fuller publication of the findings of the investigations carried out during the restoration.

5. Kathryn Ferry, *The Victorian Home*,
Botley, Oxford: Shire Publications, 2011,
112 pages, numerous illustrations, mostly in colour,
ISBN 978-0-74780-748-3, price (paperback) £7.99

Kathryn Ferry is a graduate in architectural history from Cambridge University, a former worker for the Victorian Society, and now a freelance writer and lecturer. As her introduction makes clear, the book is concerned with the *middle class*, not the upper or working class, home. Within that limitation, it distils into about a hundred pages much about life in such homes and about the houses themselves. Despite the author's training, the book is not primarily concerned with architecture, still less with bricks and tiles, although these topics are addressed, especially in Part Two (pp.57-108). There is discussion of polychrome brickwork under the influence of the 'High Victorian' movement (although the term is not used) and of the liking for red brick due to the 'Queen Anne' Revival and the Arts and Crafts Movement at the end of the period. The author notes that mechanisation of brickmaking 'intensified' after 'the brick tax was repealed in 1850' (p.8), although some of us might question the implied *causal* connection.

Those of us interested in bricks and tiles will be particularly taken by the photographs at pp.3, 6, 7, 9, 10, 13, 20, 58, 60, 64, 67, 70, 71, 96, 97, 98, 100, and 101: this is a rich haul. But, of course, there is more in the book than building materials, and all of it is fascinating: the lot of servants; bed bugs; chamber pots; the problems of gas-lighting and of keeping food and milk without refrigeration; the inconvenience of taking regular baths; and much else.

The book includes a list of places to visit, a short bibliography, and a good index. It is attractively produced, its superb illustrations complementing an informative and fluently written text — in fine, an excellent introduction to its subject. It is highly recommended, as 'popular' history at its very best.

6. John Goodall, 'A Dutch Delight',
Country Life, 25 January 2012, pages 40-45.

The moated Weldam Castle (*Kasteel Weldam bij Goor*) stands a short distance from the small town of Goor and some 15 km (9¼ miles) west-south-west of Hengelo in the province of Overijssel in the eastern Netherlands. The article outlines the history of the 'castle' — actually a country house — and briefly describes its exterior and interior. It is beautifully illustrated with colour photographs by Will Pryce, which allow fuller consideration of the brickwork than the article itself provides. (In this notice I have also made use of H.M.J. Tromp, *Kijk op kastelen*, 2nd edn, Amsterdam and Brussels: Elsevier, 1980, pp.104-5).

There is reference to a (real) castle here in 1389 'and some fragments of the medieval

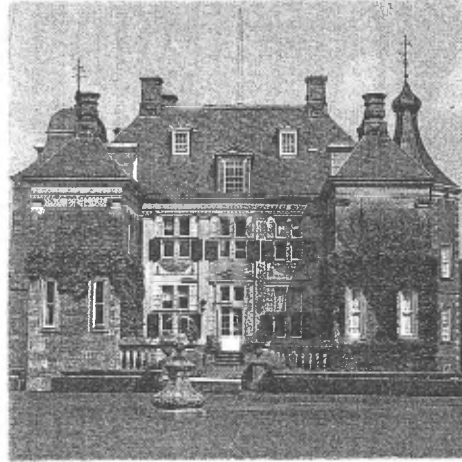


Fig.1 Weldam Castle, Overijssel, Netherlands: front face before the recent restoration: the tops of the nineteenth-century additions are visible in the background.

building may well remain encased in the fabric' (p.42). It was rebuilt c.1645. The front (south) face (fig.1) is of sandstone, with cross windows, swags, Ionic pilasters, a pedimented doorway, and a heavy cornice. It is flanked by two square wings of dark red bricks in Cross Bond with sandstone dressings. The rear face is of similar stone-dressed brickwork, although there has been refenestration and some patching in bricks of matching hue but slightly larger size. The steep roofs, with dormers, are of fish-scale slates, those of the wings crowned by carved sandstone chimneys.

In the late nineteenth century, work on the building and gardens was carried out by a cosmopolitan team for the heiress of the castle Baroness (*Baronie*) Maria Cornelia van Heeckeren Wassenaer and her husband Wilhelm Carol Otto, Count (*Graaf*) of Aldenburg-Bentink en [=and] Waldeck-Limpurg: in any language aristocratic titles can be tongue twisting! The architect chosen was, perhaps surprisingly, *English*: William Samuel Weatherley (1851-1922). A Gothic Revival architect, who trained with George Gilbert Scott jnr and then assisted the latter's father, Sir George Gilbert Scott, Weatherley adopted at Weldam a Dutch Baroque style, consonant with the seventeenth-century work. A letter from Weatherley to the Count, dated June 1881, 'expressed uncertainty about Dutch materials and brick sizes' (p.44). To the rear of the building he added a square tower (1897) at the west and an octagonal tower (1899) at the east. Both are of orange-red brick in Cross Bond with sandstone dressings. Roofs are again of fish-scale slates. That on the square tower has concave topped by convex curves; that on the octagonal tower has steep concave curves crowned by an onion-dome. The asymmetry of these towers on an essentially Classical building perhaps reflects Weatherley's training in Gothic architecture — though his clients must have approved.

Weatherley also designed a church (1899) for the site; it is now, appropriately, used for Anglican worship.

The castle has more recently been restored by the present owner, Count Solms, grandson of the late-nineteenth-century owners, and presents a 'magnificent vision of Dutch 17th-century life refracted though the lens of the Belle Epoque' (p.45).

A notice on the front gate used to read '*TOEGANG VERBODEN* (ADMISSION PROHIBITED: photograph in Tromp, 1980, p.105). But now, Weldam is sometimes open to the public: for opening times see www.weldam.nl

7. Harry Mount, 'The Landlord's Place',
Country Life, 18 January 2012, pages 56-61.

There was a period of under two centuries — approximately between 1663, the first Turnpike Act, and the 1840s when the basic outline of the railway system had been established — when the coaching inn was the centre of urban life. The article's illustrations include the Dolphin Hotel, Southampton (pp.58), originally built in the fifteenth century but remodelled in 1760 with a fine brick front: the ground floor of carefully-done stucco, the first and second floors of red brick in Flemish Bond, with the two outer bays as great bow windows. The three central bays are pedimented and the arms of William IV and Queen Adelaide are placed above the centre of the Venetian window of the first floor. Jane and Cassandra Austen were frequent visitors to its ballroom as were Captain Edward Gibbon of the Hampshire Militia and William Thackeray.

In the principal coaching inn of the county town, county magistrates would conduct business in its public rooms and election results would be declared from its balcony: in 1841, Benjamin Disraeli was declared victorious at the Lion Hotel, Shrewsbury. The assembly room, whether in Southampton, Shrewsbury or Southwell, was the centre of social life for the local gentry and more particularly for their eligible offspring.

Both the brick associations of Miss Austen — the cottage at Chawton has brick walls — and the coaching inn, itself, are subjects which might attract further research from readers of *British Brick Society Information*.

D.H. KENNETT

8. David Saxby, 'At the Three Tuns Holborn Viaduct',
British Archaeology, March/April 2012, pages 22-26.

In the summer of 2011 Museum of London Archaeology (MOLA) conducted an excavation, directed by my former colleague David Saxby, on what seemed an unpromising site north of Holborn Viaduct and south of Smithfield Market, London. It turned out to be far more interesting and important than expected.

In the southern part of the site, on the south side of a now-lost street called Snow Hill, a combination of archaeological evidence and documentary and cartographic research has identified a Tudor tavern, 'The Three Tuns'. Constructed over a medieval building, it has walls, a floor, a circular furnace, and a square water tank with associated drains, all of red brick. The furnace and the tank must have been used for brewing. In the mid-seventeenth century the landlord was the vintner Thomas Hensley. An intriguing find was a glass wine bottle seal (illustrated at p.22) showing three barrels in triangular formation (*three tuns in chevron* in heraldic terms) with an H above the top barrel and a T and an M either side of it: almost certainly this refers to T[homas] and his wife M[—] H[ensley]; on a circular border around this *faux* heraldic device are the words 'AT THE 3 TVNS AT HOLBORNE BRIDG+'.

The tavern was destroyed in the Great Fire of 1666, but was rebuilt using new and salvaged materials, including burned bricks and stone. In the eighteenth century the tavern was refurbished and an oval brick-built water tank was constructed above the Tudor square tank. Finds from the post-Fire tavern include tin-glazed wall tiles and shaped bricks used for door and/or window surrounds. Of especial interest is a brick wall plastered and then painted to simulate wall tiles — clearly a cheap substitute for the real thing. How often was that done?

To the north of Snow Hill were found the remains of various buildings with Tudor brick floors, drains, and other structures. Once more there was post-Fire rebuilding using brick, with further work in brick in the nineteenth century.

Post-excavation analysis and further documentary research are now being pursued by MOLA, and we may look forward to the final report on these significant discoveries.

9. Steven Squires and Ken Hollamby, *Building a Railway, Bourne to Saxby*, [being *Publications of the Lincoln Record Society*, volume 98,], Woodbridge: The Boydell Press, 2009, ISBN 978-0-9015038-62, price £30-00.

available from The Boydell Press, PO Box 9, Woodbridge, Suffolk, IP12 3DF.

The basis of this book is the sixty-four photographs of the Midland and Great Northern Railways' (MGNJR) line from Bourne, Lincolnshire, to Saxby, Leicestershire, during its construction from 1890 to 1893. They were taken by Charles S. Wilson, a site engineer, acting on behalf of the chief engineer for the line, J.A. McDonald. The photographs are arranged in geographical order running from Bourne in the east to Saxby in the west. Each photo has an extended caption and in some instances coloured photographs show the same location today. Also included as Appendix C is a reprint, complete with black-and-white photographs and some amendments, of John Rhodes's history of the line, originally published in 1989.

Although a joint venture between two railway companies, the line was built under the aegis of the Midland, who were then responsible for the section from Saxby to Little Bytham, while the short section from Little Bytham to Bourne became part of the MGNJR. As a whole, the line provided a useful cross-country link between the Midlands and Spalding, King's Lynn and the eastern counties.

Although the line closed for passengers in 1959 and for freight in 1964, there are still considerable remains, including a number of bridges. The contract for these and other structures specified that the 'best brindled Staffordshire District blue engineering bricks shall be used for all face work'. Surviving blue engineering bricks illustrated in the book are stamped with the names of four firms: Joseph Hamblet of West Bromwich, Wood & Ivery also of West Bromwich, Haunchwood Brick & Tile Company of Nuneaton, and Stafford Coal & Iron Company, whose brickworks was at Stoke-on-Trent and whose brick-stamp is STAFFORD/S O T.

In contrast, for Toft Tunnel west of Bourne and the only tunnel on the MGNJR, 2½ million bricks were supplied from Henry Kingston's nearby brickworks, which he had established in the late 1880s. These bricks were used for the lining of the tunnel, while Staffordshire blues were only 'used for the inner, facing course'. Similarly for Lound Viaduct, west of the tunnel, 1½ million bricks were required and 'all but the inner arch ring facing of Staffordshire blue bricks' were again supplied by Kingston.

After the line opened, Kingston had a siding off it installed to serve his brickworks, which was only a few hundred yards west of Bourne Station. By 1898, his works had been taken over by the Bourne Brick & Tile Company but with Kingston as manager, while the siding continued to be known as Kingston's siding. The Bourne company went out of business just before the First World War. In the meantime another brickworks had been opened on an adjacent site in 1898 by the South Lincolnshire Brick & Tile Company. Both works are shown on an extract of part of the 1904 Ordnance Survey 25-inch map included in the book. Again the works had its own rail connection, known as Keble's siding. The South Lincolnshire Company was a short-lived concern going bankrupt in 1907.

Towards the other end of the line, just to the north-west of Edmonthorpe & Wymondham Station, a third, smaller, two-kiln brickyard was established about 1899 by James Boam. Again it is shown on an extract of the OS 25-inch map of 1904, and again it was served by its own siding. But the siding is recorded as disused and shown as removed in a Midland Railway survey of the line made in the period 1906-1912, so this was a short-lived concern. However, the adjacent road was named Brickyard Lane and the bridge carrying it over the railway continued to be known as Brickyard Lane Bridge, Wymondham.

ALAN COX

Forthcoming Exhibition

The critic and novelist Charles Dickens was born on 7 February 1812; several exhibitions of interest are happening in the course of the year 2012; one is noted below and others, now near to closing, were included in *BBS Information*, 119, February 2012. In keeping with the bicentenary, *British Brick Society Information*, 122, to be sent to members in November 2012, will include as its principal article a review of brickmaking in Charles Dickens' novels.

Dickens and the Artists

Watts Gallery, Compton near Guildford, 19 June 2012 to 29 October 2012

Charles Dickens was a highly visual writer and the original publication of his works, often in the magazine *Household Words*, included illustrations. Dickens was an art critic, commenting on acquisitions to the National Gallery, and many contemporary artists were among his friends, who in turn produced the illustrations in *Household Words* and drew inspiration from his novels.

British Brick Society Information: Back Numbers

John Tibbles, the Publications Officer of the British Brick Society, holds an extensive collection of back numbers of *British Brick Society Information*.

The collection is getting large and the society would like to know if there is a demand for back numbers. John Tibbles may be contacted at his home address:

Barff House
5 Ash Grove
Hull
East Yorkshire HU11 5QC

Depending on the response received, whether there is a demand or there is no demand for back numbers of *British Brick Society Information*, a decision will be made at the society's Annual General Meeting in Faversham, Kent, on Saturday 9 June 2012 as to the fate of the stock of back issues, with the proviso that a number of sets will be kept for archive purposes. Given that all of the issues are available via a link to the society's website: www.britishbricksociety.org.uk it is possible that much of the stock may be recycled for paper manufacture.

Changes of Address

If you move house, please inform the society through its Membership Secretary, Anthony A. Preston at 11 Harcourt Way, Selsey, West Sussex PO20 0PF.

The society has been embarrassed by material being returned to various officers from the house of someone who has moved but has not told the society of his/her new address.

BRITISH BRICK SOCIETY MEETINGS in 2012

Saturday 9 June 2012

Annual General Meeting

Assembly Rooms, Preston Street, Faversham, Kent

with walk to see the brick buildings of historic Faversham in the afternoon

Saturday 18 August 2012

note the change of date

London Meeting

Pimlico and South Westminster

Polychrome brick at St James the Less; LCC housing of various periods from 1890s to 1970s; the Royal Horticultural Society Hall, Westminster Kingsway College and other buildings around Vincent Square (Westminster School Playing Fields); Rochester Row; Westminster City Archive Office, Tate Gallery, Royal Army Medical School

Saturday 6 October 2012

Brickworks Visit

Measham Works, Measham, Leicestershire

Hanson Brick's new factory, opened in September 2009, is the largest and most modern brickmaking facility in Europe, with the capacity to produce 100 million mud bricks per annum. Numbers are limited to *ten*.

*Details of the Annual General Meeting was sent in late April 2012
Details of the August and September meetings are included in this mailing.*

There is projected visit to the Tilbury Forts in August 2013, which may be a midweek visit. Also planned for 2013 is a Saturday visit to north and south of Oxford Street, London including the church of All Saints Margaret Street of polychrome brickwork, Charles Dickens' childhood home and the Cleveland Street workhouse in the morning and brick churches for London's French communities, the Manette Street Workhouse and other buildings in the vicinity of Soho Square in the afternoon.

In addition to the Annual General Meeting, other visits may be held..

The British Brick Society is always looking for new ideas for future meetings.

Suggestions of brickworks to visit are particularly welcome.

Offers to organise a meeting are equally welcome.

Suggestions please to Michael Chapman, Michael Oliver or David Kennett.