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British Brick Society web site:

<http://britishbricksoc.co.uk>

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Cover Illustration:

The final mixing of the clay for tilemaking at Aldershaw Tiles Ltd, Seddlescombe, near Battle, East Sussex. The society visited the works on Saturday 6 September 2014. The firm is one of the few modern makers of mathematical tiles.

Editorial: *British Brick Society Matters*

This Editorial must begin with an apology. Three days before Christmas 2014, the editor's seventeen-year-old Apricot on which he has faithfully typed at least the last fifty issues of *British Brick Society Information* died on him. As the printer attached to that computer also had died about two years back, since about the middle of 2013 printing of the master sheets so that the society's journal could be delivered to the printer for the actual printing of the issue has been done via the computer which is currently being used.

The result of this minor mishap is that some material for future issues of *British Brick Society Information* has been lost. Mostly this is papers in progress being written by the editor rather than material sent to him by others: items contributed by others are typed fairly soon after they are received and the proofs sent out. As a safeguard in the last two years, once the initial text of a paper or note was ready for printing to give a proof, it has been transferred to this machine. As far as he knows, the editor is unaware of any item he has been sent to him in the last twelve months that has been lost. Also, he is unaware of any material submitted earlier than this which had not been used in an issue of *British Brick Society Information*.

However, production of *British Brick Society Information*, 129, February 2015, was slightly delayed whilst a check was made for missing items. Printed copy of three items remained; these were retyped for this issue. But one regular feature of *BBS Information*, namely 'Brick in Print' noting a variety of articles published in 2014, does seem to have been lost because of the computer glitch: all the contributions to this feature had been written by the editor. In consequence, there is no 'Brick in Print' in this issue of *British Brick Society Information*. The column will be resumed in future issues.

This issue has fewer pages than several of the recent issues of *British Brick Society Information*. Visiting the local post office recently, he was informed that due to its impending refurbishment it will be closed two weeks in late February 2015 and early March 2015. As a consequence and given that it had been possible to make up an issue which is an exact multiple of four pages in early January 2015, a potential paper on 'How Many Bricks are there at Tattershall Castle?' which is in the process of being written was deleted from the list of potential contributions for this issue of *British Brick Society Information*: the author of the paper is the editor.

One other consequence of the minor mishap to one of the editor's computers has been that the collection of shorter items, from the editor and others, has been used up in this issue of *British Brick Society Information*.

Later in Spring 2015, the meetings programme of the British Brick Society will resume. The society will now be visiting Oxford on Saturday 18 April 2015. The date has been changed to avoid the weekend before Easter and a new flyer on the meeting has been included in this mailing.

The society's Annual General Meeting is to be held at the Black Country Living History Museum, Dudley, West Midlands, at 11.00 a.m. on Saturday 30 May 2015; this is a reasonably central location and very accessible from the motorway network. The museum is signposted from the M5; the appropriate railway station is Sandwell and Dudley, which has through trains from London Euston.

Further meetings are planned for the Summer on Saturday 27 June 2015 at Battersea, London; on Saturday 25 July 2015 to see the brick churches of North Buckinghamshire; and on Saturday 19 September 2015 at the York Handmade Brick Company, Alne, North Yorkshire. The date of the last has also been changed. Notices of meetings later in 2015 will be included in the next mailing.

British Brick Society Information, 130, will be devoted to 'Brick in Churches'. The editor holds a goodly supply of papers and book reviews but there is a slight imbalance; the papers and book reviews so far submitted are written by only two people, Terence Paul Smith and the editor, himself. The editor also holds several papers for subsequent issues and knows of others in draft form but again they are by the same two persons.



Fig. 1 Demonstration wall of mathematical tiles produced at Aldershaw Tiles, Seddlescombe, near Battle, East Sussex. The works was visited by members of the society in September 2014.

The British Brick Society exists for its members and it would be good to have contributions to *British Brick Society Information* from a wide range of contributors.

The editor would particularly welcome suggestions for further contributions to *British Brick Society Information*, **130**, April 2015, production of which is designed to appear in time to distribute with the papers which will be sent to members regarding the society's Annual General Meeting at the Black Country Living History Museum on Saturday 30 May 2015.

He would also welcome papers and suggestions for articles on brick topics other than 'Brick in Churches' for use in future issues of *British Brick Society Information*.

The British Brick Society regrets to report the deaths of two long-standing members of the society: Terry Knight and Charles Thurlow. For many years Terry was a stalwart of the society's meetings and visits, especially those to brickworks. Charles was joint author with the late John Ferguson of *Cornish Brick Making and Brick Buildings*, St Austell: Cornish Hillside Publications, 2005. To their families we extend the society's sincere condolences.

DAVID H. KENNETT
Editor, *British Brick Society Information*
Shipston-on-Stour, January 2015

'Bakestones': Medieval Cooking Aids or Bricks?

Terence Paul Smith

In a brief consideration of trade between London and the Low Countries in the later fourteenth century, Vanessa Harding states that she 'think[s]' that items referred to as 'bakestones' (in fact, *bakston* and variants in relevant documents), although they may '*possibly* have been bricks or tiles' are '*more likely* to have been flat pieces of terracotta or stoneware, used as heat-distributors in cooking'.¹ She instances a ship which arrived at the Port of London on 18 July 1384, which 'could [*recte* may] have been Dutch' and was 'carrying 10,000 bakestones'.² By the conclusion of her discussion this conjecture — though proffered in an endnote rather than argued for in the text — has hardened into 'fact' and it is roundly asserted that Londoners in the fourteenth century 'cooked on stoneware bakestones, imported in their thousands every year'.³ Interestingly, in her introductory essay to the same volume Caroline Barron ignores the suggestion and, having observed that 'Flemish bricks were imported into England in large quantities' in the late thirteenth century, states that 'Vanessa Harding's essay illustrates the continued import of Flemish *bricks* into the port of London' in the following century — which, of course, it does *not* if her alternative explanation of *bakston* be correct.⁴

Support for 'bakestones' being cooking aids is offered from a modern cookbook which 'discusses their use in Italian cooking'.⁵ The relevance of this to late medieval London (and England) is not obvious, but no other evidence is presented; and it is curious that so firm a conclusion should be based merely on what the author 'think[s]': *Cogito ergo est!* More relevant — though, as we shall see, not supporting the case — might have been reference to English (dialectal) usage, available in the *Oxford English Dictionary* (*sub* 'bakestone'). In 1531, a Lancashire will mentions 'One backstone and one spetil ['spittle' = small spike, spit]'; and a Richmond, Yorks. North Riding, will of 1575 mentions 'i backstone [valued at] iijd'. They were used, then and later, for baking bread, oatcakes, and the like. In Wales, the traditional *bara planc* ('bakestone bread') and Welsh cakes (*picau ar y maen*: 'cakes on the stone') are made in the same way. These *bakestones*, however, were of stone, slate, or (later) cast iron rather than ceramic. Moreover the earliest instance recorded in the *OED* is that of 1531. The question remains: Was this term applied to *ceramic* cooking aids in southern England well over a century earlier?

The answer must be negative. First, there appears to be no archaeological evidence for such items amongst late medieval north European cooking equipment, either in the Netherlands or in London, despite their alleged import in their tens of thousands.⁶ Second, such large numbers should themselves give us pause: ten thousand bricks in one shipment is a quite small quantity; the same number of baking slabs (each of which, unlike a brick, would have been used individually) is a truly prodigious quantity — hard to credit. Dr Harding seems aware of this problem when she concedes that the baking slabs must have been 'rather breakable'.⁷ Third, the point concerning large quantities is underscored by the case of 4,400 *Bakston* purchased at Sandwich in 1372-3 for use at Dover Castle.⁸ It really is difficult to imagine even a large castle household such as Dover needing to purchase baking slabs in batches of over four thousand: even if they were indeed 'rather breakable' and their users careless enough to smash one a week, 4,400 would last about 85 years; and if, less carelessly but still implausibly, one was broken once a *month*, the same number would last almost 370 years! Fourth, and a most telling point, this instance actually provides a gloss on the term, since the *Bakston* are also described as 'tiles', which here, as John Harvey states 'evidently means bricks'. Finally, the case against 'bakestones' being cooking aids is clinched by the fact that in 1366 the king's master mason Henry Yeveley supplied building materials, including *bakston*, for use at the royal works at Gravesend;⁹ this can hardly refer to baking slabs: they were, after all, *building materials* — and in this case, we may be confident, *bricks*.

In late medieval England brick was still an innovatory material and a consequence of its relative unfamiliarity was semantic uncertainty and fluidity, with a variety of designations being employed. From her study of the situation in Sussex BBS member Molly Beswick pertinently observes that 'Accounts written in English, or in Latin with English words inserted, hesitated between several different terms. "Wall tile" was current for a time and "bakestone" ... was in use in the 1390s

[and a little earlier in Kent, as we have noted] before eventually giving way to “brick” ...’.¹⁰ The last, although found as early as 1340 at Windsor Castle (in the plural form *brikis*),¹¹ did not find universal employment until the Tudor period. There were other terms too: *tile*, *tilestone*, and *Flanders tile*, with Latin equivalents for most of them.¹²

Bakston (however spelled) was one amongst this *pot-pourri* of terms, and there can be no reasonable doubt that it is simply an Anglicisation of the Dutch/Flemish *baksteen* (= brick: cf. German *Backstein*), from *gebakken steen* (‘baked — or fired — stone’) as opposed to *natuursteen* (‘natural stone’).¹³ ‘Bakestones’, that is to say, were *bricks*, not any sort of cooking aid, and the word itself provides one more example of Middle English borrowing from the Low Countries¹⁴ — hardly surprising when one recalls that many of the brickmakers and bricklayers in late medieval England were of north European origin.¹⁵ The idea of Londoners and others importing ceramic baking slabs in prodigious quantities, cooking on them, and breaking them with irresponsible abandon may be dismissed. What we are witnessing in the relevant documents is the beginning, albeit at first on a small scale and for minor applications only, of the use of brick for building in London and elsewhere.¹⁶

As a concluding note, it may be worth stressing that it is always preferable, in considering such cases, to transcribe *bakston* (or whatever) exactly as it occurs in the documents: converting it to ‘bakestone(s)’ — with its obvious hint of ‘baking stone(s)’ — can all too readily become tendentious.

NOTES AND REFERENCES

1. V. Harding, ‘Cross-Channel Trade and Cultural Contacts: London and the Low Countries in the Later Fourteenth Century’, in C. Barron and N. Saul, eds, *England and the Low Countries in the Late Middle Ages*, Stroud: Alan Sutton Publishing, 1995, p.166, n.28 (my italics).

2. Harding, 1995, p.158. The ship’s master was ‘Peter Masse’ — probably Pieter Maes/Maas; the following day, another ship, under ‘Clays Johanson’, presumably Claes/Claas Johansen, entered London with a mixed cargo of ‘earthenware dishes, bakestones, Holland linen cloth, and beer’.

3. Harding, 1995, p.163.

4. C. Barron, ‘Introduction: England and the Low Countries 1327-1477’, in Barron and Saul, 1995, pp.17-18 (my italics); in fact, the quantities involved are not *especially* large.

5. Harding, 1995, p.166, n.28, citing M. Hazan, *The Second Classic Italian Cookbook*, London and Basingstoke: Macmillan, 1982, pp.32-59.

6. Zwolle Museum, *Thuis in de late middeleeuwen: het Nederlands burgerinterieur 1400-1535*, Zwolle: Uitgeverij Waanders, 1980; and G. Egan, *The Medieval Household: Daily Living c.1150-c.1450*, [being *Medieval Finds from Excavations in London*, 6], London: The Stationery Office for the Museum of London, 1988, are both silent on the supposed baking slabs; nor are they mentioned in P. Hammond, *Food and Feast in Medieval England*, revised pbk edn, Stroud: Sutton Publishing, 2005. During twelve years spent working on building materials for the Museum of London Archaeology Service not once did I come across anything that might, rather, be interpreted as a baking slab.

7. Harding, 1995, p.166, n.28.

8. J. Harvey, *Mediaeval Craftsmen*, London and Sydney: B.T. Batsford, 1975, p.142.

9. J. Harvey, *English Medieval Architects: a Biographical Dictionary down to 1550*, revised edn, Gloucester: Alan Sutton Publishing, 1984, pp.359-360.

10. M. Beswick, *Brickmaking in Sussex: a History and Gazetteer*, 2nd edn, Midhurst: Middleton Press, 2001, p.17.

11. L.F. Salzman, *Building in England down to 1540: a Documentary History*, revised edn, Oxford: The Clarendon Press, 1967, p.142.

12. For various terms see Salzman, 1967, pp.140-143; and for one more: T.P. Smith, 'Tile Stone: a Medieval English Term for Brick in the "Wycliffe" Bible', *BBS Information*, **105**, October 2007, pp.4-9 — though this seems to have been a purely literary term.
13. J. Hollestelle, *De steenbakkerij in de Nederlanden tot omstreeks 1560*, 2nd edn, Arnhem: Gysbers & Van Loon, 1976, pp.49-59.
14. Cf. L. Wright, 'Trade between England and the Low Countries: Evidence from Historical Linguistics', in Barron and Saul, 1995, pp.169-179. More general considerations of loanwords from Dutch/Flemish (Low German) are available in various histories of English; one of the best succinct accounts is in T. Pyle and J. Algeo, *The Origins and Development of the English Language*, 3rd edn, San Diego, New York: Harcourt Brace Jovanovitch, 1982, pp.308-309.
15. Salzman, 1967, pp.142-3; T.P. Smith, *The Medieval Brickmaking Industry in England 1400-1450*, Oxford: British Archaeol. Reps., **138**, 1985, pp.7-10; N.J. Moore, 'Brick', in J. Blair and N. Ramsey, eds, *English Medieval Industries: Craftsmen, Techniques, Products*, London and New York: Hambledon Press, 1991, pp.214-216.
16. Before c.1400, brick in England was used — with few exceptions (notably in Hull) — for minor and/or utilitarian purposes rather than for brick buildings proper: cf. P.J. Drury, 'Aspects of the Production, Evolution and Uses of Ceramic Building Materials in the Middle Ages', *Medieval Ceramics*, **24**, 2000, pp.60-61. Brick was used as a major material in its own right — at least in *parts* of the country — mainly from the turn of the fourteenth and fifteenth centuries, and in London only from the final decades of the latter century: cf. J. Schofield, *Medieval London Houses*, New Haven CT and London: Yale University Press, 1995, pp.150-152.

Book Notice:

Gleanings about Dating Brick Churches in Northern Europe

Tanja Ratilainen, Rivo Bernotas, and Christofer Herrmann,
Fresh Approaches to Brick Production and Use in the Middle Ages: Proceedings of the session 'Utilization of Brick in the Medieval Period -- Production, Construction, Destruction' Held at the European Association of Archaeologists (EAA) Meeting, 29 August to 1 September 2012 in Helsinki, Finland
 Oxford: Archaeopress [being *BAR International Series* **2611**], 2014,
 v + 101 pages, 104 illustrations
 ISBN 978-1-4073-1242-2, proce £24-00 (stiff covers).

As the sub-title makes clear, this is a work derived from a conference session, but to which the editors "were also able to invite more contributors to complete this book"; unfortunately, we are not told who spoke at the original session and who were the additional authors. The geographical locations range from north-west France and south-east England in the west to Finland in the east, with contributions on Belgium, northern Germany, Poland, and Sweden.

Sophie Blain with other authors contributes the only paper even partially about England: 'Early Medieval Brickmaking: a Cross-Channel Perspective Based on Recent Luminescence and Archaeomagnetic Dating Results' (pp.1-9). It was the subject of her presentation at a British Brick Society session at the Leeds International Medieval Congress in 2008. After briefly describing the technicalities of both scientific dating methods, Blain notes evidence from the re-use of Roman bricks in the churches at Rugles and Vieux-Pont-en-Auge, both in Normandy, France, and the Kent churches of St Martin, Canterbury; St Margaret, Darenth; and St Margaret, Lower Halstow, as well as the tower of Holy Trinity, Colchester, Essex. In contrast, at the church dedicated to St Martin of Tours, Chipping Ongar, Essex, the dating for the bricks is suggested as AD 1040 ± 30, that is roughly contemporary with the Norman Conquest of 1066 and with some of the bricks from the subterranean chapel at Mont-Saint-Michel, Normandy, and some of those at the church at Saint-Philbert-de-Grandlieu, Pays de Loire, France.

Two papers concern Belgium. Vincent Debonne writes on 'Brick Production and Brick Building in Medieval Flanders' (pp.11-25) and Philippe Sosnowska on 'Approach on Brick and its Use in Brussels from the 14th to the 18th Century' (pp.27-38). Debonne's focus is mainly on ecclesiastical buildings and those derived from religious institutions such as the barn of the grange at Ten Bogaerde, a property of the abbey of Ten Duinen in Koksijde. The brickwork considered from Brussels is secular.

Two papers look at brickwork in lands that are or have been part of Germany, including much which is now in Poland. One other paper examines Warsaw: 'Brick in Historic Architecture: The Research Experience of Warsaw' by Włodzimierz Pela (pp.61-69). On Germany, Dirk Rieger examines 'The Use of Early Bricks in Secular Architecture of the 12th and Early 13th Century in Lübeck' (pp.39-49) and Felix Biermann and Christofer Herrmann consider 'The Origin and Rise of Brick Technology and Use in Medieval Pomerania, Pomerania and Lower Silesia' (pp.51-60). Biermann and Herrmann include churches and the spectacular brick tower castles of the southern Baltic in their analysis. Pela has a table of brick sizes (p.65) and Rieger has an interesting diagram (p.42) showing how between the twelfth and the nineteenth centuries bricks became narrower and more rows were laid in a metre high, something which could be followed up by researchers in Great Britain, particularly in towns like Great Yarmouth where the use of brick begins in the thirteenth century with undercrofts and perhaps friary buildings and as part of the early-fourteenth-century town walls and continues to the present day. Unfortunately none of the authors makes reference to Igor Kiesler's work on 'Dating Scales for Russian Historic Masonry and Bricks' in *BBS Information*, **100**, May 2006, pp.23-27.

Three papers look at brick on the northern shores of the Baltic. At the end of a long career, Gunilla Malm examines 'Facts and Thoughts on Medieval Brick Building in the Northern Periphery of Europe' (pp.71-79). The paper includes information about brick bonds, partly as a guide to the organisation of building work. Jan Peder Lamm and Anders Lindahl report on 'A Recently Excavated Medieval Brick Kiln at Saltssjö Boo, Sweden and the HXRF Analyses of its products' (pp.81-92); the kiln was in operation from *circa* 1250 to *circa* 1450. Tanja Ratilainen's paper, 'Unfired Bricks Used for a Medieval Oven in Turku, Finland' (pp.93-101), concerns a structure dated to the 1320s.

Each paper is well illustrated with both drawings and photographs of good quality. Each paper has an extensive bibliography. From two of these we learn that Archaeopress have published at least two other volumes of interest to brick researchers. Sophie Blain's doctoral thesis, presented at both Durham and Bordeaux, was published in 2011 as *Les terres cuites architecturales des églises du haut moyen age du NW de la France et du SE de l'Angleterre. Application de la datation par luminescence à l'archéologie du bâti*, being *BAR International Series*, **2189**. In 2001, *BAR International Series* published *Archaeology and Buildings Papers from a session held at the European Association of Archaeologists Fifth Annual Meeting in Bournemouth 1999*, to which Gunilla Malm contributed a paper on 'Venstena Abbey Church and its Masons' marks'.

One cavil on book production: in an attempt to provide that each paper begins on a right-hand page, so as to facilitate the distribution of author offprints, the volume has no fewer than five left-hand pages left blank between the articles. And there are five more at the end with two blank pages for the half-title and two within the introductory material. Also two of the chapter bibliographies are as few as nine lines of double column or less. Even allowing for each paper to start on a right-hand page, it should have been possible to eliminate eight of the blank pages or provide another paper for this very useful volume.

DAVID H. KENNETT

The 'Long Brick'

Mike Kingman

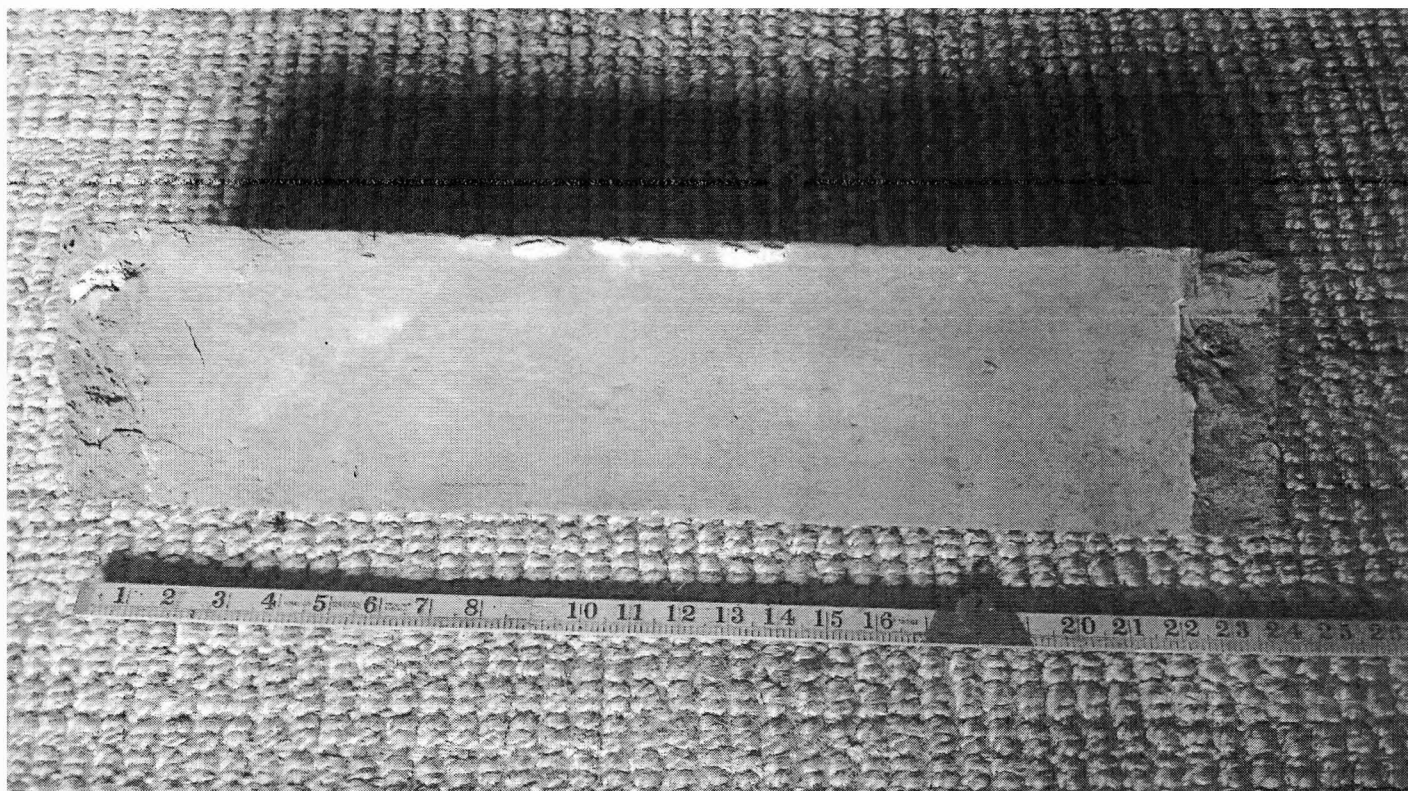


Fig.1 The 'Long Brick'

I have recently acquired the brick illustrated in figures 1 and 2. At its maximum it measures $23\frac{3}{4} \times 2 \times 5\frac{1}{2}$ inches ($600 \times 60 \times 140$ mm). All sides are completely flat and possess no markings. Post-firing at each end of one of the long faces a crude rebate has been cut along the width measuring $1\frac{3}{4} \times \frac{1}{4} \times \frac{1}{2}$ inches ($47 \times 8 \times 12$ mm) which suggests that it could have been used as some form of lintel. I presume that this is an example of the 'long brick' for which there are some documentary references in the seventeenth and eighteenth centuries but for which surprisingly there are no descriptions in any of the standard works by Nathaniel Lloyd, Jane Wight or R.W. Brunskill,¹ although Alec Clifton-Taylor has a brief reference.² Neither are there any definitions in any of the seventeenth- or eighteenth-century building handbooks.

These bricks were enormously expensive. Presumably their volume, three times that of the standard brick, made them more difficult to mould, fire and transport. The earliest documentary reference I have is of 1749 when in Stratford-on-Avon, Warwks., '2 long briks' cost 6*d.*, an equivalent price per thousand of £12 10*s.* 0*d.*, at a time when 'building bricks' were priced at about 10*s.* 0*d.* per thousand.³ In 1749, Richard Drakelow purchased 308 'long brick' at 2*d.* each for his house at Stafford, equivalent to £8 6*s.* 0*d.*⁴ At Perry Hall, Sir William Gough's building bills reveal payment in 1749 to the brickmaker Richard Barbour, for 5,300 bricks at 12*s.* 0*d.* per thousand and 2½*d.* each for 28 'long brick', a rate of £10 8*s.* 4*d.* per thousand.⁵ In the brickmaking accounts of the Edge family eastate near Sherborne, Warwks., in 1755 is endorsed £2 18*s.* 4*d.* for '350 long bricks' at 2*d.* each.⁶ 'Long bricks' were thus a familiar product, certainly in the Midlands, of local and estate brickmakers.

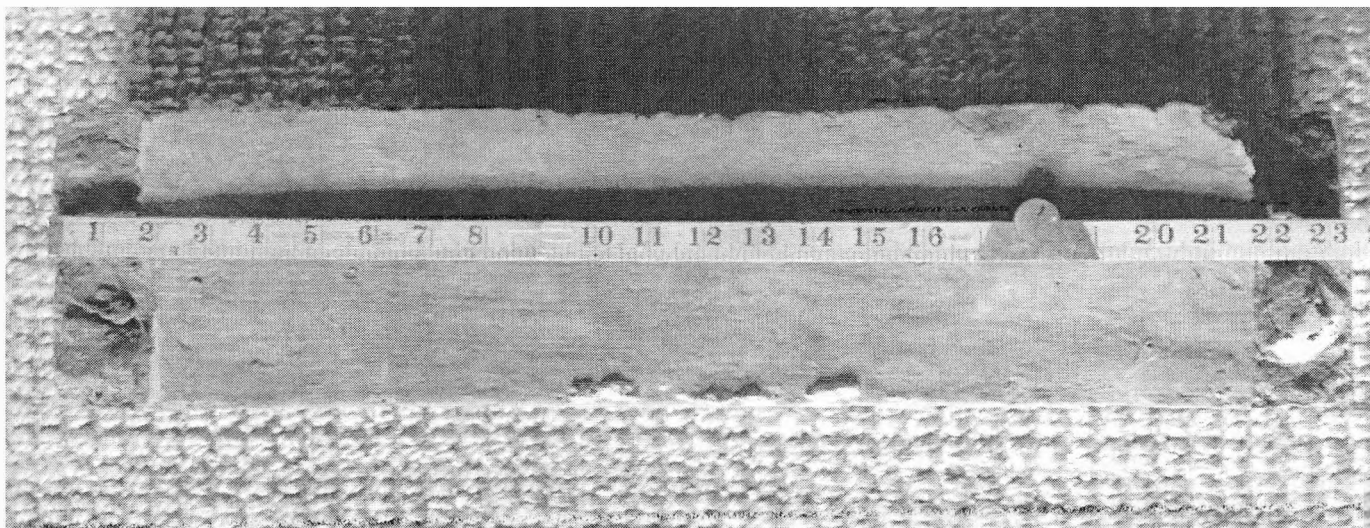


Fig.2 The 'Long Brick' looking down on the face which is cut away at the ends.

What was the purpose of the 'long brick'? It has been suggested that they were used to reinforce the corners of a building, but there is little physical evidence of this function. In discussion with two conservation builders, they had both met them within seventeenth-century houses as reinforcements of a hearth running from its back to its front. The brick illustrated in figure 1 has smoke blackening on one surface which may support this interpretation. The examples quoted in the previous paragraph are for domestic housing, but such bricks may also have had an industrial use. Within a Nottingham malt kiln John Houghton described in 1682 the use of 'very long bricks' whose length was 22 inches and thickness 2 inches 'these being heated retain heat a long time which causes a less expence of fuel than is usual in our best kilns'.⁷ In his work, *The Natural History of Oxfordshire*, Robert Plot in 1677 had earlier noted this use in Oxfordshire where

they make a sort of brick 22 inches long and above 6 inches broad, which some call *Lath-bricks* by reason they are put in in the place of *Laths* or *Spars* (supported by *Pillars*) in *Oats* for drying *mault* the only use of them, and in truth I think a very good one too, for beside they are no way liable to fire, as the wooden *Laths* are, they hold the *heat* so much better, that once being *heated*, a small matter of fire will keep them so, which are valuable advantages in the *Profession of Maulting*.⁸

Was this also their domestic function, to retain heat in their fire hearth? But if this was their use why would Drakelow require 308 bricks for a single house? The 350 produced for the Edge estate are more understandable as they possessed many houses in Nottinghamshire, Staffordshire and Warwickshire.

I would be most grateful for other explanations and evidence which readers could suggest.

NOTES AND REFERENCES

1. N. Lloyd, *A History of English Brickwork*, London: H. Greville Montgomery, 1925; reprinted Woodbridge: The Antique Collectors Club, 1983; J. Wight, *Brick Building in England from the Middle Ages to 1550*, London: John Baker, 1972; R.W. Brunskill, *Brick Building in Britain*, London: Victor Gollancz in association with Peter Crawley, 1990; R.W. Brunskill, *Brick and Clay Building in Britain*, New Haven and London: Yale University press, in association with Peter Crawley, 2009.
2. A. Clifton-Taylor, *The Pattern of English Building*, 2nd edn, London: Faber & Faber, 1972, p.239.
3. Straford-upon-Avon: Shakespeare Birthplace Trust, BRU5/3/155.

4. Stafford: Staffordshire Record Office, D1798 H.M. Drakelow/19.
5. Birmingham: Library of Birmingham, Local Archives, 3145/334/19.
6. Nottingham: Nottinghamshire Archive, DD/E/127/6.
7. J. Houghton, *A Collection of Letters for the Improvement of Husbandry and Trade*, published as *A Catalogue of all sorts of Earths, the Art of Draining, of Brewing, of all sorts of Husbandry*, London: edited R. Bradley, 1726/7, Vol. 4, pp.76-77. The actual letters were written in 1681-84.
8. R. Plot, *The Natural History of Oxfordshire*, 1677, pp.251-252.



Fig.1 Brick made *circa* 1912 by the Brick and Tile Company, Market Harborough.

Brick Query: A Brick from Market Harborough, Leicestershire

The brick illustrated in figure 1, opposite, is from a building demolished about forty years ago, *i.e.* in the mid 1970s. This red brick of standard size has a rectangular frog with a stamp on two lines:

B & T C^o
MK^T HARBORO

Can any member identify the maker? Replies to
MIKE CHAPMAN
8 Pinfold Close, Nottingham NG14 6DP
email pinfold@freenetname.co.uk

It is possible to give some idea of the date and manufacturer of this brick. *Kelly's Directory for Leicestershire and Rutland for 1912* lists the Brick and Tile Company, Little Bowden, Market Harborough. Earlier editions of *Kelly's Directory for Leicestershire and Rutland*, those for 1899 and 1904, list a Market Harborough Brick and Tile Company, St Mary's Road, Little Bowden, Market Harborough. There is no brick and tile company in Market Harborough listed in editions of *Kelly's Directory for Leicestershire and Rutland* for 1922, 1928 and 1932.

Unfortunately, the set of *Kelly's Directory for Leicestershire and Rutland* in the Library of Birmingham lacks the issue for 1908 so it is not possible to give a more precise date for this brick than *circa* 1912.

Also the relationship between the Market Harborough Brick and Tile Company and the Brick and Tile Company Market Harborough is unknown but given that both were operating in Little Bowden, it seems likely that this may have been a simple name change for a brickmaking firm at the same place, possibly signifying a change in company ownership.

DAVID H. KENNETT

BRICK COLLECTION NEEDS A GOOD HOME

A Lancashire BBS member has a collection of approximately hundred bricks, acquired over the last twenty years. The member would like to find a good home for the collection which covers the last two hundred years of brickmaking. Any member who is able to help is asked to first contact

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A Further Firebrick from London

Terence Paul Smith

A previous contribution to these pages considered a number of firebricks used in London and mapped their sources in central Scotland, Tyneside, the West Midlands, and south Devon.¹

In 2011 Museum of London Archaeology (MoLA) conducted an excavation and watching brief on the demolished Somers Town Goods Yard, in use from the 1880s to the 1950s, adjoining St Pancras Station.² Excavation included the base of an hydraulic power station, and one of the flue linings contained a brick identified by MoLA building materials specialist and BBS member Ian Betts as a cream firebrick stamped JOHN KNOWLES & CO / WOODEN BOX; it is the first recorded example in London of a firebrick from this manufacturer.³

The firm was founded in 1849 by John Marsden Knowles when a seam of fireclay was located at Woodville in south Derbyshire, which lies at the junction of the A511 and the A514, south-east of Swadlincote, Derbys.⁴ The firm began by making firebricks and stoneware pipes, but later also manufactured moulds for iron-casting. The factory was demolished in 1993.

The words WOODEN BOX in the stamp might be taken to suggest that the firm also made wooden boxes. In fact, they refer to the original name of the settlement, which was, indeed, *Wooden Box*, from the wooden toll-booth which stood on the toll road (the present A511) between Ashby-de-la-Zouch, Leics., and Burton-upon-Trent, Staffs. The name was changed to Woodville, *circa* 1845 (when the name is first recorded), though it is clear that some preferred the old name even three or four decades later, when presumably the Somers Town brick was made. Even if it is an earlier product reused, which is unlikely, it cannot pre-date the change of name since the firm was not founded until at least four years later.

This example adds to the known sources of firebricks used in London not only a further manufacturer but also one in a different area, the East Midlands. This is shown on a revised map (fig.1). Unlike most of the fourteen firms previously noted — Martin Brothers of Lee Moor, Devon, is the one exception — John Knowles & Co was concerned only with ceramic materials and not also with coalmining, despite the fact that Woodville lies on the Coal Measures and coalmining was pursued in the area.⁵ It is a reminder that coal mines were a principal, but not the only, source of material for the manufacture of firebricks.

It is scarcely surprising that this source should be used at the Somers Town Goods Station since the latter was built for the Midland Railway and Woodville lay on the Midland network with a direct connection to Somers Town/St Pancras.⁶

NOTES AND REFERENCES

1. T.P. Smith, 'Some Sources of Firebricks Used in London', *BBS Information*, **106**, February 2008, pp.33-41.

2. H. Lewis, 'Somers Town Goods Yard: Excavations at Brill Place, Camden NW1', *London Archaeologist*, **13**, 11, Winter 2013/2014, pp.287-293. For the goods yard see also T.P. Smith, 'The St Pancras (Somers Town) Goods Station and its Bricks', *BBS Information*, **96**, April 2005, pp.21-26.

3. Lewis 2013/14, p.291, citing I. Betts, 'UKCMRI, Brill Place, NW1 (UKCO9)', unpublished building material report, MoLA, 2011.

4. Details in this and the following paragraph are taken from two websites: en.wikipedia.org/wiki/Woodville,_Derbyshire; and www.archaeologists.tv/content/view/22/64/ (both accessed April 2014).

5. G.H. Dury, *The East Midlands and the Peak*, London and Edinburgh: Thomas Nelson and Sons, 1963, pp.170-176, especially the series of six maps at pp.172-3; for the connexion of coalmines and brickworks see p.185. For opencast winning of fireclay in Derbyshire: J. Blunden, *The Mineral Resources of Britain: a Study in Exploitation and Planning*, London: Hutchinson, 1975, p.286.

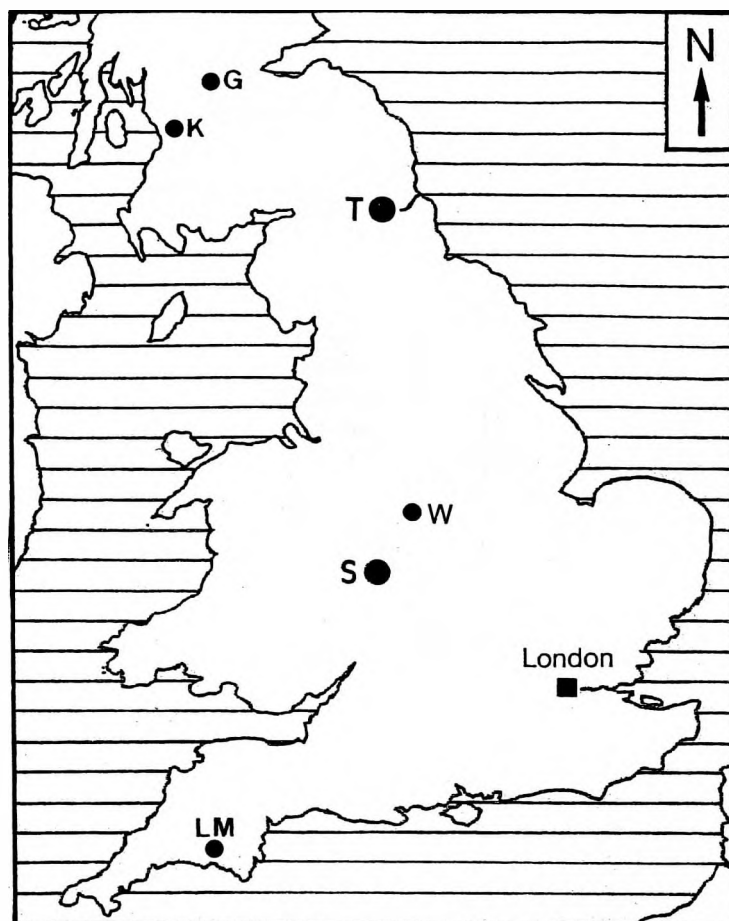


Fig. 1 Sources of firebricks used in London; larger circles indicate locations with several suppliers; smaller circles indicate locations with a single supplier: G = Glenboig, K = Kilmarnock, LM = Lee Moor, S = Stourbridge, T = Tyneside, W = Woodville.

6. W.P. Conolly, *British Railways Pre-Grouping Atlas and Gazetteer*, 5th edn. Shepperton: Ian Allan Publishing, 1967, p.16; the first station was actually called *Wooden Box*, but was superseded by another at a different location and named *Woodville*: T. Dewick, *Complete Atlas of Railway Station Names*, Hersham: Ian Allen Publishing, 2002, map 16, which also shows stations at Woodville Tollgate, Woodville Station Street, and Woodville Reservoir; all, except Woodville itself, had disappeared by 1904: *Railway Clearing House Atlas of England & Wales 1904*, reprinted Hersham: Ian Allan Publishing, 2001, maps 19 and 26. Woodville Station and the line on which it stood were lost as part of Dr Beeching's 'rationalisation'. Part of the former line is marked as 'dismtd rly' (dismantled railway) on the Ordnance Survey Landranger map 128 at SK315201.

Finding the Yellow Brick Road

David H. Kennett

In the autumn of 1868, a fresh-faced, twelve-year-old L. Frank Baum (1856-1919)¹ arrived by steamship from New York at the Hudson River town of Peekskill, in New York State, situated about 40 miles (64 km) north of the city of New York. He was there to attend the town's military academy, a boys' school with very strict discipline and run on military lines.² The military academy at Peekskill was founded in 1833; it survived until 1968. However, it lacked the endowment of the more affluent West Point, 7½ miles (12 km) further north on the opposite bank of the Hudson River, established in 1802 for the specific purpose of training the officers of the United States Army. At Peekskill Military Academy, Baum was deeply unhappy and clearly found himself unsuited even to the prospect of military life. He later had a career in an oil lubricant company, although his real passion for writing. At 32, Baum lived for a time in Aberdeen, South Dakota, and in various occupations he travelled over the prairie states to the south, particularly Nebraska and Kansas, from which some would argue that he drew locations and events for the many stories he wrote about a mythical magical land called Oz; although none of the many stories he wrote after the first and most famous one, *The Wonderful Wizard of Oz* (1900),³ achieved the same level of popularity.

Baum had gained instant fame as the author of *The Wonderful Wizard of Oz*. Two years after its initial publication, *The Wonderful Wizard of Oz* was made into a stage musical in 1902, playing first in Chicago, where Baum was then living, before transferring to Broadway, New York, where it played for extended periods in 1903 and 1904. In 1939, two years before the United States entered the Second World War, the book became more famous as the vehicle for the talents of the then sixteen-year-old Judy Garland (1922-1969) who as Dorothy, the principal character in the MGM film *The Wizard of Oz*, went off to see the wonderful wizard of Oz on being told to "follow the yellow brick road". In addition to the yellow brick road, both the book and the film feature the Emerald City and have amongst the characters the Tin Woodman and the Scarecrow. Early in the tale Dorothy is told by the Witch of the North that

The Road to the City of Emeralds is paved with yellow brick so you cannot miss it.⁴

This first mention of the "yellow brick road" in the book occurs in Chapter 2, 'The Council with the Munchkins' and there are subsequent references to the road at various points in Chapters 3-10.

Various attempts have been made to identify individuals and places in *The Wonderful Wizard of Oz* with actual events and inspirations. Evan I. Schwartz wrote *Finding Oz: How L. Frank Baum Discovered the Great American Story*⁵ in an attempt to identify people such as the Wicked Witch of the East and the Tin Woodman, and locations including the yellow brick road and the Emerald City. For Schwartz the wicked witch is, of course, the author's mother-in-law! So there is no surprise there. Likewise the Tin Woodman derives from Baum's time with the oil lubricant company and the Emerald City recreates in a different hue of the White City, the Chicago World Fair,⁶ held over two separate seasons in 1893 and 1894, the plaster covered buildings of which were all white and classical in style, excepting one, the Transportation Building with its golden door but that was designed by Louis Sullivan.⁷

The inspiration for the yellow brick road and any location of the original, however, had eluded investigators until John Curran, the town Historian of Peekskill, New York, remembered a stretch of yellow brick highway, measuring 50 yards (45 metres) in length, remaining in the town.⁸ West Street was part of the route from the town's landing stage to the military academy at Peekskill. Frank Baum would have walked up it many times, notably on arriving in Peekskill and departing at the end of each term to return to his parents in Philadelphia, Pennsylvania.

The yellow brick road in Peekskill is now more yellow-brown than a dull yellow. Where earth has taken hold in the mortar joints, weeds grow. Today, it is not very long, ending in the car park of the local liquor store, owned by Stephen Zwick. Mr Zwick has taken advantage of the road's new-found fame to stock cases of a Yellow Brick Road chardonnay produced by a Kansas winery.



Fig.1 The 'yellow brick road' at Peekskill, New York State, USA.

Peekskill had been founded by Dutch immigrants in the mid seventeenth century:⁹ New York and the land bordering the Hudson River were not ceded to England until 1674 when the settlement of Nieuw Amsterdam, safe behind the stockade¹⁰ at the south end of the island of Manhattan, became an English colony at the end of the Third Anglo-Dutch War by the Second Treaty of Westminster (1674). Earlier, in 1664, during a temporary occupation by the English, the principal settlement had been renamed 'New York', after the Duke of York, the future James VII of Scotland and II of England and brother of the reigning monarch of both kingdoms, Charles II.

Brick paved roads remain relatively common in the residential districts of the cities in the states of the Mid West of the USA.¹¹ In the German Village Historical District of Columbus, Ohio, many of the street surfaces are in red brick laid with the bedface uppermost.¹² South Third Street, the main thoroughfare has a tarmac surface but its sidewalks and the streets off it and their sidewalks are brick paving in red brick. These streets accommodate only local traffic; pedestrians have to watch their step on uneven surfaces to the sidewalks.

Similarly in some of the lower middle class residential districts of Chicago north of the Chicago River developed in the final quarter of the nineteenth century, the sidewalks and the rear alleys continue to have surfaces of red brick.¹³ The defect of using only a single layer of brick paving as the surface of a back alley is deep pot holes: the alley provides access to the garages of the apartments and houses on either side of it. Some of the surfaces are deeply rutted, due in part to the heaviest vehicle to traverse the alley, the garbage truck once every week or fortnight. It is probable that these streets originally had red brick surfaces to the roads.

Further north, in the Chicago suburb of North Lincoln, where the buildings were erected in the first quarter of the twentieth century or later, the rear alleys are of concrete.¹⁴ Today, the road surface to the streets of Chicago is almost invariably tarmac rather than concrete but when those in the city centre, the downtown, were built the road surfaces were either brick or setts (wooden blocks).¹⁵ In the city centre, the back alleys tend to have robust surfaces; for example, the alley at the rear of the Gage Building, 18-30 South Michigan Avenue,¹⁶ is paved in concrete as surface is the alley west of the Monadnock Building, 53 West Jackson Boulevard,¹⁷ but when the latter was built between 1891 and 1894 the surface of the alley was brick.¹⁸

The city of Cedar Rapids, Iowa, suffered a catastrophic flood in Summer 2008, from which several of its buildings had yet to even partially recover in May 2010.¹⁹ Damage to the road surface could be seen on Fourth Street NE and Fourth Street SE which has a railway line down the centre; the

damaged surface showed red bricks beneath the residual tarmac. Also where other road surfaces on the side streets east of the Cedar River had yet to be relaid in 2010 and it was clear that beneath the tarmac the original road surface had been red brick.

Further west in downtown Omaha, Nebraska, the restoration of Howard Street in the Old Market area included relaying the road surface with red bricks.²⁰ The street is lined with buildings erected before the Great War and is now a vibrant centre for small specialist shops and places to eat.

In Pittsburgh, Pennsylvania, there are red bricks laid in a herringbone fashion surviving as the sidewalk facing the entrance front and side of Emmanuel Church.²¹ H.H. Richardson (1838-1886) designed the building in 1883 and it was completed three years later. The sidewalk is presumably contemporary.

Away from its big cities but still within the Mid West, the sidewalks around the former railroad station in Grinnell, Iowa, are red brick.²² The railroad station was begun in 1892 and completed in the following year. Also in Grinnell is a modern example of red brick road surfaces and sidewalks, the spine road and associated pavements and entrance ramps of recent buildings for Grinnell College.²³ Other towns in the USA where the bus station has brick paving laid on the sidewalks and where the single-decker buses are loaded include Waco, Texas, and the Metro Transit Center at Kalamazoo, Michigan.²⁴

Red bricks used as the road surface were doubtless much more common when Baum was writing than they are today. A hand-coloured postcard of Main Street, Dallas, Texas, using a photograph taken in about 1905, shows a red road surface but concrete paving slabs to the sidewalks.²⁵ The photograph lacks the detail to decide whether the material used for the surface, into which tramway lines are inlaid, is red brick or the local red sandstone. Similar hand-coloured photographs of a panorama of Commerce Street, Dallas, taken in about 1915 and of Old City Hall, on the corner of Commerce Street and Akard Street, probably dating to soon after its construction in 1889, show red surfaces to Commerce Street which are also inlaid with tramway lines.²⁶

Dallas' twin city, 50 miles to the west, is Fort Worth. Here, two blocks of Main Street retaining at least twelve brick-built buildings constructed at the end of the nineteenth century have been transformed through building restoration and careful marketing into a pleasant area of small shops, small art galleries, and a branch of a national bookstore chain, which together with restaurants and a boutique hotel are designed to attract visitors to the downtown and revitalise its nightlife.²⁷ A century ago, Sundance Square with its bordellos and gambling saloons was a natural habitat, when they were not holding up a stagecoach carrying the mail or robbing a bank or halting a freight train, of George Leroy Parker and Harry Longbough; the two men more recognisable as Butch Cassidy and the Sundance Kid. Using photographs taken as the cattle town grew in wealth and attractiveness to those who regarded themselves as beyond the reaches of the law, the sidewalks have been relaid with red brick; road surfaces remain of tarmac above a brick base: the surface is easier to replace.²⁸

A city also with sidewalks of red brick on its sloping streets is Nashville, Tennessee.²⁹

In Boston, Massachusetts, the work of H.H. Richardson includes at least one house where the sidewalk along one side is nineteenth-century red bricks used as pavers. Crownshield House, 164 Marlborough Street, Boston, was a relatively early work, built between 1868 and 1870.³⁰ At the end of his career, Richardson designed the Union Railroad Station at New London, Connecticut;³¹ the entrance front of this fine brick structure, built between 1885 and 1887, is prefaced by a wide brick sidewalk. From a photograph of the entrance front, the bricks in the sidewalk appear to be of yellow brick³² but these may be a more recent installation than the construction of the station building.³³

Brick roads, and more often brick-paved yards, were building practices which the original burghers of Peekskill³⁴ and other Dutch settlements in the future New York State had brought with them in the second and third quarters of the seventeenth century as contemporary paintings demonstrate. The courtyard scenes painted by Pieter de Hooch in the late 1650s illustrate this tradition. But in contrast to the *red brick* surfaces of streets and sidewalks in the USA, Hooch's paintings show yellow brick as the construction material for the brick paved yards in contrast to the red bricks of the walls surrounding them.³⁵

Brick paved roads and pavements remain common today throughout the Netherlands.³⁶ The image has been used in advertising. 'Sunlight' soap was promoted in both Britain and the Netherlands by a 'Dutch' scene of a man and a woman walking home with their shopping, prominently including 'Sunlight' soap; they are walking along a paved road of red brick.³⁷

The advice given by the Witch of the North coupled with the physical evidence from across the United States, but particularly in the Mid West, seems to indicate that a *yellow brick road* was relatively unusual; hence its choice as the way to the Emerald City as a memory dredged up by L. Frank Baum two decades after he had first encountered the yellow brick road leading from the landing stage at Peekskill to the town's military academy.³⁸

NOTES AND REFERENCES

1. For Baum see J. Gray 'Lyman Frank Baum' in J.A. Garraty and M.C. Carne, *American National Biography*, New York and Oxford: Oxford University Press, 1999, 2, pp.353-4. The standard biography is F.J. Baum and R.P. MacFall, *To Please a Child: A Biography of L. Frank Baum, Royal Historian of Oz*, 1961. Baum never used the first of his two given names. For Baum's literary reputation see J. Rowe Townsend, *Written for Children: an Outline of English-Language Children's Literature*, revised pbk edn, Harmondsworth: Penguin Books, 1976, pp.109-110, a fairly positive account; and more disparaging in its comments, H. Carpenter and J. Pritchard, *The Oxford Companion to Children's Literature*, corrected edn, Oxford: Oxford University Press, 1985, pp.50-51. I owe the last two references to the kindness of Terence Smith.
2. Terence Smith has pointed out to me that for sensitive boys, American military academies could be harsh institutions. He cites the actor Gregory Peck (1916-2003) being quoted as saying that St John's Military Academy, Los Angeles, a Roman Catholic institution which he attended from 1927 to 1930 was 'the nearest thing to Sing-Sing that I've ever been in'; G. Fishgall, *Gregory Peck: a Biography*, New York: Scribener, 2002, p.32. Sing-Sing is the New York State Penitentiary at Ossining NY.
3. L. Frank Baum, *The Wonderful Wizard of Oz*, New York: George W. Hill, 1900; the edition used here is the in the 'Oxford World's Classics' series, Oxford: Oxford University Press, pbk, 2000. The introduction by Susan Wolstenholme, *ibid.*, pp.ix-lv, is valuable.
4. Baum, 1900/2000, p.25.
5. E.I. Schwartz, *Finding Oz: How L. Frank Baum Discovered the Great American Story*, Boston, MA: Houghton Muffin Harcourt, 2009.
6. N. Bolotin and C. Laing, *The World's Columbian Exposition: The Chicago World Fair of 1893*, Urbana and Chicago: Chicago University Press, 1992, re-issued in paperback, 2002. See also, chapter 2, 'The Chicago World's Columbian Exposition of 1893: "And Was Jerusalem Built Here"' in R.W. Rydell, *All The World's a Fair*, Chicago and London: University of Chicago Press, 1984, paperback 1987, pp.35-71.
7. Bolotin and Laing, 1992/2002, pp.55-57 and 94-97. All books on Louis Sullivan feature the building. A good account is H. Frei, *Louis Henry Sullivan*, Zurich, München, London: Artemis Verlags AG, 1992, pp.94-97.
8. W. Pavia, 'The "real" yellow brick road leads to a cark park', *The Times*, Monday 13 June 2011, p.29.
9. Dutch influences in the southern part of New York State is briefly considered D. Hackett Fischer, *Albion's Seed: Four British Folkways in America*, New York and Oxford: Oxford University Press, 1989, pp.816-817.
10. Wall Street in New York City follows the line of the plank-built stockade of Nieuw Amsterdam.
11. The notes on brick paved roads and sidewalks are mostly from personal observation. The references given are for the buildings on these roads. The author has also seen a red brick paved road in the wastelands of Detroit east of the freeway Michigan State Route 10 but he cannot recall the exact location. In downtown Kalamazoo, Michigan, some of the streets behind Main Street retain brick surfaces.
12. J.T. Darbee and N.A. Recchie, *The AIA Guide to Columbus*, Athens, OH: Ohio University Press, 2008, pp.248-259. J. Ware, *Building Ohio: A Traveler's Guide to Ohio's Urban Architecture*, Wilmington, OH: Orange Frazer Press, 2001, pp.212-213, with photograph on p.213 showing red brick paving.

13. I am thinking of the stretch of Lincoln Park West numbered in the 1820s and 1830s with the Ann Halstead Flats, by Adler & Sullivan, 1884 and 1885: see Frei, 1992, pp.58-59 for these buildings; also A. Sinkevitch, ed., *ALA Guide to Chicago*, Orlando FL: Harcourt Inc, 2nd edn, 2004, pp.182. In contrast, the more upmarket North Astor Street, developed at the end of the 1880s seems to have had a non-brick road surface and sidewalks from the beginning. The architect John Welborn Root resided at no.1310, one of a group of four he had designed in 1887, and the Charnley House at no.1365 was designed in the office of Adler & Sullivan in 1892.
14. 4611 Lincoln Avenue, the Krause Music Store, with façade by L.H. Sullivan is the architect's final built work. Frei, 1992, p.162; Sinkevitch, 2004, p.234. Also now concrete is the alley behind the Leon Mannheimer House, 2147 North Cleveland Avenue, of 1884 by Sullivan, and the house Bruce Graham designed for himself in 1969 at 2215 North Cleveland Avenue but I suspect that originally the alley and also the sidewalks and street in front of the houses on North Cleveland Avenue had brick surfaces.
15. The pre-1900 photographs in D. Bluestone, *Constructing Chicago*, New Haven and London: Yale University Press, 1990, *passim*, show either of setts or bricks, with the tramway lines inlaid into them.
16. Sinkevitch, 2004, pp.39-40. Frei, 1992, pp.120-121, for the façade by Sullivan to no.18.
17. Sinkevitch, 2004, pp.63-64; for a detailed account of the Monodnock see J. Merwood-Salisbury, *Chicago1890: The Skyscraper and the Modern City*, Chicago and London: the University of Chicago Press, 2009, pp.55-73.
18. The author has seen a photograph taken *circa* 1900 showing brick in Custom House Place, as this alley is known, but has been unable to locate the reference, but see Bluestone, 1990, for the general point about brick road surfaces in downtown Chicago in the nineteenth century.
19. D. Gebhard and G. Mansheim, *Buildings of the the United States: Buildings of Iowa*, New York: Oxford University Press, 1993, pp.171-190 for the major buildings of the city. The Peoples Savings Bank (1910-11: Louis Sullivan) on the west side of the river was still drying out and Wells Fargo, its present owners were unsure when the city authorities would permit the firm to re-enter the building. On the east side, four blocks in from the river front, the front of the World Theatre (1923: William Jay Brown) remained damaged and peeling. The World Theatre is on Third Avenue, at the corner with Fourth Street. For these buildings see Gebhard and Mansheim, 1993, p.186 and p.184, respectively. The hotel I stayed in, near the river on the city's west side had had its first floor (=ground floor in the UK) inundated to 8ft 8 in and had only just reopened.
20. K. Gerber and T. Kessler, *Omaha and Council Bluffs: Yesterday & Today*, Council Bluffs, IA: Nonpareil Publishing, 2008, p.137 for recent photograph, and p.136 for photograph taken in 1904 or earlier. On the latter, the road surface is principally dust but it does appear to have been taken just after a rainstorm.
21. M. Henderson Floyd, *Henry Hobson Richardson: A Genius for Architecture*, New York: The Monacelli Press, 1997, 227-234, with photographs on p.228 for entrance front and p.230 for the side. The street is now modern tarmac.
22. Personal observation. Gebhard and Mansheim, 1993, p.239. See also B. Menner, *Grinnell in Vintage Postcards*, Charleston, SC: Arcadia Publishing, 2004, p.41, lower photograph.
23. The buildings on either side of this road are subsequent to Gebhard and Mansheim, 1993. This is where the Greyhound bus from Des Moines to Iowa City, Quad Cities and Chicago has its stop. Quad Cities is the local name given to Davenport and Battendorf, both Iowa, and Moline and Rock Island, on the Illinois side of the Mississippi. The author recalls travelling over roads with red brick surfaces in one of the two last-named.
24. Personal observation. For Kalamzoo Metro Transit Center see K.B. Eckhert, *Buildings of Michigan*, New York and Oxford: Oxford University Press, 1993, p.223, which deals only with the railroad station. I can supply no reference for Waco, Texas.
25. M. Rice, *Downtown Dallas: Romantic Past, Modern Renaissance*, Dallas: Brown Books Publishing Company, 2007, frontispiece.
26. Rice, 2007, p.xxiii for panorama, and pp.18-19 for the Old City Hall.

27. B. Diamonstein, *New Uses, Old Places: Remaking America*, New York: Crown Publishers, 1986, pp.140-143.
28. It is, of course, a supreme irony that two of the four steel and glass towers overlooking Sundance Square are the headquarters of Wells Fargo, a firm whose stagecoaches carrying the mail Butch Cassidy and the Sundance Kid were in the habit of holding up and robbing.
29. Diamonstein, 1986, pp.152-153, for sidewalks and revitalised brick buildings on Second Avenue North, Nashville; the city has other examples of brick sidewalks. Diamonstein, 1986, has a number of other instances of brick sidewalks which I have not personally seen.
30. Henderson Floyd, 1997, pp.207-209, esp. pl.211 on p.208 for sidewalk by east side of house. S. and M. Southworth, *AIA Guide of Boston*, Guilford CT: The Globe Pequot Press, 1992, p.274, is dismissive of the house.
31. Henderson Floyd, 1997, pp.200-205. Members able to consult this volume will be able to appreciate Richardson's command of decorative brickwork as well as his better-known work in rough-cut stone.
32. Henderson Floyd, 1997, pp.202-203. As with all photographs in Henderson Floyd, 1997, this excellent depiction was taken by Paul Rocheleau.
33. In contrast to the other buildings and streets in the USA cited in this paper, the writer has not seen any of the works of H.H. Richardson noted herein.
34. Pavia, 2011, makes the common mistake of assuming that the yellow bricks arrived in the Hudson River settlement as 'ballast'; from the fourteenth century onwards, bricks were a valuable cargo and would have been crated to avoid damage; that because of their weight and bulk they may have obviated the need for additional ballast is, of course, not disputed.
35. C. Brown, *The National Gallery Schools of Painting: Dutch Paintings*, 1st edn, London and Glasgow: William Collins for the National Gallery, 1983, pp.52-63 'The Courtyard of a House in Delft', 1658, and pp.54-55, 'A Woman and her Maid in a Courtyard', probably 1660. Only the former is reproduced in both M.E. Wieseman, *The National Gallery: Dutch Painting*, New Haven and London: Yale University Press, 2007, pl.16 on p.28; and M.E. Wieseman, *Dutch Painting*, London and New Haven: Yale University Press for the National Gallery, pp.48-49.
36. I owe observations on this to Terence Smith.
37. R. Cox, 'Dishing the Dirt', in R. Cox *et al.*, *The Filthy Reality of Everyday Life: Dirt*, London: Profile Books for the Wellcome Collection, 2011, illustration on p.45.
38. Pavia, 2011, seems to acknowledge that there were, and possibly still are, other roads in Peekskill where the surface is laid with yellow bricks.

Brick Query: A Brick Building from the Karura Forest, Kenya



Fig.1 Mowing the lawn in 1927. The house in the background is assumed to be that built by Mr and Mrs Tom Watkins.

During clearing of intensive shrubs in the early months of 2014 by the Friends of Karura Forest in the eponymous forest in the northern part of the Nairobi peri-urban area, we uncovered some historical brick buildings about which we would like to know more. Any information would be assistance to the Friends of Karura Forest.

To date we have unearthed some snippets of information from old books and a few living memories. Given the physical and historical involvement of bricks in the tales, the Friends of Karura Forest thought that possibly members of the British Brick Society might be able to shed some light on the building and/or its bricks. What we have so far unearthed is given below.

From Veronica Hughes' article, 'The Watkins of Whispers Farm', in Elsbeth Huxley and Arnold Curtis, eds, *Pioneer Scrapbook: Reminiscences of Kenya 1890 to 1968*, London: Evans Brothers, we read that *circa* 1914 'a charming Kentish couple of the old variety', Mr and Mrs Tom Watkins, had a brick and tile works that supplied the bricks for the house that Mr and Mrs Watkins eventually built. We presume that this is the house seen in the right-hand background of figure 1.

Elizabeth Watkins in *Oscar from Africa: The Biography of O.F. Watkins*, London: Radcliffe Press, 2002, pages 154-5, gives a similar tale: 'Only a mile away from the chosen site lay a brick and tile works run by a Kentish man. A Kentish brick house it would be, but to get the bricks she had to bridge the Karura River'.

A recollection from a professional surveyor, who has known Kenya since pre-independence, relates that the site was occupied at some point between the two world wars by a Mr Kiln, who, apart from being the forester, raised dogs and burnt bricks.

A member of the board of the Friends of Karura Forest recalls attending a local primary school with the daughters of the Rutherford family that apparently lived on or near the site in the 1960s. Mr Rutherford was said to be the head landscaper for the City of Nairobi. The name may have been Rutherford as a William Edward Oliver-Rutherford (1863-1961) sold the Edgerton estate in England in 1915 and emigrated to Kenya. The family had held Edgerton for five hundred years. In 1891, he had married Nancy the daughter of Gideon Pott; their descendents live in Kenya, England, Spain and Australia.



Fig.2 (top left) The remains of two brick buildings revealed when shrubs were cleared in the Karura Forest, Kenya.

Fig.3 (top right) Building in the Karura Forest with double hearth. The function of the double hearth is unknown.

Fig.4 (below) Exposed wall in building in the Karura Forest, showing use of Header Bond and the underfired cores of the bricks.



Fig.5 Fragmentary brick with stamp BULLDOG BRAND with head of bulldog clearly visible.



Fig.6 Two fragmentary bricks with BULLDOG BRAND stamp; the other side of the bulldog face reads REGISTERED / TRADE MARK.



Fig.7 Fragmentary brick with stamp N B T & P W. It is uncertain if this stamp refers to Nairobi Brick Tile and Pipe Works or to Nairobi Bureau of Transport and Public Works. Some bricks have both this stamp and the BULLDOG BRAND one.

The bricks marked BULLDOG BRAND measure $9\frac{1}{4} \times 4\frac{1}{2} \times 2\frac{5}{8}$ inches ($36 \times 18 \times 10$ mm); in some instances BULLDOG BRAND and N B T & P W are on the obverse and the reverse of the same brick. The latter may stand for Nairobi Brick, Tile and Pipe Works or for Nairobi Bureau of Transport and Public Works.

We do have some queries.

1. Is the house shown on the right-hand side of the background of figure 1 a Kentish type? Is the idea of a house with a tall central portion with a high pitched roof flanked by two outshots found in Kent or elsewhere in England?
2. What was the function of the small building at the front of figure 2? Figure 3 shows the bricks from this building.
3. Can anyone throw any light on what the double hearth seen in the background of figure 2 and in detail in figure 4 was used for? Was this for an industrial process or did the hearths represent cooking space for a large workforce?

Replies to

HARVEY CROZE

email hcroze@karurafriends.org

with copies to both Mike Hammett and David Kennett.

As an initial response, two short points may be made.

The bullock pulling the lawnmower in figure 1 can be paralleled in country houses in Norfolk in the period between 1880 and at least 1930, if not later, by photographs showing one of a landed family's horses pulling the lawnmower; riding horses also earned their keep by acting as the motive power for an apple crusher and doubtless for other mechanical devices, in the same way the horse at the pugmill would have been dressed in its finery to take the brickworks owner, his wife and family to church or chapel in their dog cart or other horse-drawn vehicle.

Whilst no immediate information is available about brickmaking in twentieth-century Kenya, it is worth remarking that the country had a flourishing cement block industry, for which see chapter 10, 'Cement Block Manufacture in Kenya', in Frances Stewart, *Technology and Underdevelopment*, Basingstoke and London: Macmillan, 1978, pages 239-273.

DAVID H. KENNETT

Lancashire Brickmaking in the Great Depression: A Boy's Story

Terence Paul Smith

William Woodruff (1916-2008) was born in Blackburn, Lancs., and, despite the poverty of his childhood and the severe inadequacy of his schooling, rose to become a respected historian, specialising in modern world history. As well as several academic books, he published two autobiographies and three works of fiction. The first of his autobiographies, mostly concerned with his formative years in Blackburn, was originally published as *Billy Boy* (Mirfield, W.Yorks.: Ryburn Publishing, 1993) and reissued as *The Road from Nab End* (London: Eland Publishing, 2002). It has been well received, both for the clarity of its writing and for its vivid pen-portraits. I am grateful to André Beeson for drawing my attention to it.

In the depths of the 1930s Depression, which hit the Blackburn cotton industry particularly hard, the sixteen-year-old Woodruff obtained temporary work at the Darwen Brick Works on the moors south of Blackburn. In a brief section of chapter 20, the author describes something of his experiences there. He 'loved the moors where — because of the clay — the works were sited'. Most of the time, he 'worked out of doors where [he] could hear the birds and see the fells' — a striking contrast with the dreary lodging house in which he was then living with his parents and sisters at Nab End, Blackburn. There was the added advantage that his beloved collie dog, Bess, could, on the way home, swim in a water-filled clay pit. To get to and from work he had to ride 'for the best part of an hour across the moors ... on a borrowed bike'.

At work, he 'learned early on not to hustle. At Darwen Brick Works, slow and steady was the rule'. Which is not to say that the work was *easy*. 'With a gang of others,' he recalls, 'my job was to stack the bee-hive shaped kilns with unbaked bricks ("green bricks"). The bricks were cut automatically, loaded onto pallets, and then dried before being fired with gas. Days later we'd take out the finished product. We used sacking to cover our hands; the alternative was suppurating blisters'. His work also involved helping the grinders, 'where the clay was crushed'. The bricks were, clearly, wire-cuts, for the clay 'was forced through a die [in a pugmill] onto the cutting table'. It was, he notes, a good job by the standards of the time, though unavoidably insecure.

The young Woodruff was also responsive to the kindness of his fellow human beings, and it is warming to read of his 'young, enjoyable work mates, who roared at each others' jokes and the accounts of their weekend escapades', and of his foreman, the 'the soft-voiced Arthur Dimbleby ... a quiet father figure whom we all respected'. He it was who urged Woodruff to seek better prospects in London, which eventually led to his receiving a London County Council Scholarship — no *student loans* in those straitened times! — enabling him to enter Oxford University and leading, ultimately, to his distinguished academic career.

Quite apart from its brief description of his work at the brickyard, the whole book is an inspiring read, a remarkably positive account from one whose early experiences might well have crushed many of us. It is also one of the few autobiographies to include reference to brickmaking — to add to, say, the several Fenland chronicles of Sybil Marshall (1913-2005).

Brick for a Day

Since the last series of reports on the British Brick Society's meetings and visits in *British Brick Society Information*, 127, July 2014, the society has held meetings in Worcester on 26 July 2014 and at Aldershaw Tiles Ltd, Battle, East Sussex, on 6 September 2014.

DHK

WORCESTER

26 July 2014

Twelve members and guests met at the entrance to Worcester Foregate Street Station for a tour of the central part of the city led by David Kennett. The first building seen was the Guildhall (1721-24: Thomas White), red brick with stone dressings and host to statues of Charles I, Charles II, and Queen Anne. Behind the Guildhall is the City Police Station (1862: Henry Rowe) in an orange red brick laid in Flemish Bond, with an addition of 1900 by A.B. Rowe in glazed orange-coloured brick. We next examined a pair of late 1930s buildings by the Cardiff-based practice of Ivor Jones and Thomas, at that time led by Sir Percy Thomas (1880-1966): the Fire Station and the former County Police Headquarters, now the St Andrew's Building of Worcester College of Technology. These are actually very different buildings in how they were conceived: the Fire Station tall and imposing and taking advantage of a sloping site, whilst the Police Station is low and almost domestic: ironically, it was the Fire Station which housed living quarters for its staff. Both are in the neo-Georgian idiom favoured for public buildings at the time.

On the spine road of High Street, The Cross, and The Foregate, the party examined a number of commercial and retail premises of dates ranging between the eighteenth and the early twentieth centuries within the area of the former city walls. Several of those erected in the quarter century before the Great War incorporate much terracotta in their frontages.

On The Foregate, literally beside the point where the former City Walls of sandstone were interrupted by the Foregate, is Berkeley's Hospital, endowed in 1692 by Robert Berkeley (*d.* 1694) of Spetchley and erected in the first decade of the eighteenth century. It has a chapel at the end of a garden flanked by two rows of six single-storey almshouses, with the street façade formed by a pair of larger houses, for the warden and the chaplain, linked by an elaborate ironwork screen. All were built in red brick using Flemish Bond. In total Worcester accrued thirteen charitable almshouse foundations; Berkeley's Hospital is the only one in its original buildings.

North of the railway station, in Foregate Street, The Tything and Upper Tything, we saw eighteenth-century brick frontages, some to earlier timber-framed buildings, erected after the devastation of this long-standing Worcester suburb in the two sieges during the English Civil War. The area has a number of public buildings. The Museum and Art Gallery (1894-96: John W. Simpson and E. Milner Allen) was erected as the Victoria Institute. At the same time, the same architects did the School of Art and Science at the other end of Sansome Walk. Both are in red brick with orange/buff terracotta fittings. The former Girls' Secondary School (1909-10: Alfred G. Parker) was built between them in a similar style to satisfy the demands of the Balfour Education Act of 1902.

Boys' secondary education was already catered for by two historic foundations: Worcester Royal Grammar School on Upper Tything, and King's School on College Green, south of Worcester Cathedral. The former incorporated two brick eighteenth-century houses, Priory House of *circa* 1720 and Whiteladies House of about the same date, in its extensive brick buildings of various dates from the 1868 onwards; it has now amalgamated with the Alice Ottley School for Girls, established in 1883 in Britannia House, built in orange brick in about 1730, perhaps designed by Thomas White, who was a stone carver rather than a mason or bricklayer or architect.

West of Upper Tything is Castle Street, named after the now demolished castellated county prison. Here are modern brick buildings for policing and justice: the Magistrates Courts and the Police Station (both 2000-01: Architects of Worcestershire County Council). The former County Police Station is opposite (1902-03: A.B. Rowe) in dark red brick.

Justice from the nineteenth century onwards has been administered from Shire Hall (1834-38:

Charles Day), a stone front and visible north side but the addition of 1898 by Henry Rowe was red brick in Flemish Bond. Charles Day also did the Judges' Lodging in Sansome Walk, in red brick in Flemish Bond; it housed the assize court judges when on circuit.

South of Castle Street is the former Worcester Royal Infirmary (1766-70: Anthony Keck), a big, red brick building to which various additions have been made; most of these are sympathetic. It is in the process of conversion to become part of the City Campus of the University of Worcester.

Worcester had to rebuild several of its parish churches during the eighteenth century. Only one is brick: St Martin's, Cornmarket (1768-72: Anthony Keck). The dark blue bricks are from Bewdley, and are laid in Flemish Bond. Outside the line of the then demolished city walls, Henry Rowe built a Georgian preaching box in red brick for the Roman Catholics in 1828-29 two centuries after the Jesuit Mission of St George arrived in the city. In 1880, S.J. Nicholl added a short chancel with flanking chapels and then in 1887 gave the building a stone frontage. The red brick presbytery on the north side of the front was designed by J.A. Hansom in 1851 and in 2006 KKE Architects provided a social space separated from the church by a south cloister.

David Kennett prepared 'Buildings Notes' for the day, available via the society's website, <http://britishbricksoc.co.uk>; and two articles arising from the visit are in preparation for future issues of *British Brick Society Information*. One will examine 'Building Types and Materials Choice: Buildings in Worcester 1651-1850' and the other will consider 'Worcester Brick Buildings 1918-1942'. It is hoped that one of these will be available for publication in 2016.¹

DAVID H. KENNETT



Fig.1 (left) Members of the British Brick Society at Aldershaw Tiles Ltd with Tony Kidman and Lindy in the front row (centre and right respectively).

ALDERSHAW TILES LTD, BATTLE EAST SUSSEX

6 September 2014

With the September weather providing a dry and sunny day, fourteen members and guests (fig.1) were treated to a most interesting tour of this unique clay tile manufacturing works, located in a very rural part of the East Sussex countryside.

The factory specialises in a range of architectural clay tiles, suitable for both restoration and conservation work and new build projects where local heritage and vernacular preservation is of prime importance. Notable projects have been at Hampton Court Palace, London;² the Queen's House at the Tower of London;³ and Charleston Manor, East Sussex,⁴ the weekend retreat of Vanessa Bell and Duncan Grant who entertained other members of the Bloomsbury set there.

Of particular interest to BBS members was the production of Mathematical Tiles,⁵ a unique cladding material used, historically used in Sussex and Kent, production of which had virtually died out. Aldershaw have successfully re-introduced production to satisfy a growing demand.



Fig.2 The source for Wadhurst Clay.

HISTORY OF THE WORKS AND ITS DEVELOPMENT

Whilst the surrounding area has a rich industrial history, not least of iron production, which dates back to the Roman occupation,⁶ the present site only dates back to 1985, when a local farmer seeing the need for specialist Kent Peg tiles, with supply of natural gas available and with a suitable supply of Wadhurst Clay, bought the site and commenced production of mathematical and roofing tiles, albeit on a very small scale. In 1999, the business was bought by its present owner, Tony Kindell, who has since carried out a progressive and sustained development to produce the current range of products.

Principles of bio diversity and sustainability continue to be the bedrock of the business objectives, with management of its own woodland being a good example. Through a programme of sustainable coppicing, woodland products provide a valuable income as well as ensuring the future health of the woodland itself.



Fig.3 (above) The crushing and grinding layout.
 Fig.4 (below) Final mixing for hand throwing floor tiles (see also the cover).



Fig.5 Tile production with hand throwing and pressing each tile into the mould. The raised lever to the left of the mould allows the Aldershaw trademark to be imprinted into the tile.

A recent development has been the installation of an 80Kwh Biomass boiler, fuelled by coppice wood, and providing heat for the drying of the clay products, thereby reducing the use of natural gas brought on to the site. A combination of waste head recovery from the drying and firing processes, together with photovoltaic (PV) generation of electricity and rainwater harvesting further reduces both the environmental impact and costs of operation.

Currently the site makes approximately 500,000 roof tiles per year, together with 2,000 square metres of floor tiles and several hundred square metres of glazed wall tiles and specialist terracotta products, usually made to order.

The main raw material is Wadhurst Clay, a material used extensively in East Sussex and Kent and well-known for producing vibrant red colours and highly durable roofing tiles.

THE PROCESS AND THE PRODUCTS

The clay is brought from an adjacent quarry (fig.2), and stored under cover until required. It is then crushed and ground using a set of impact crushing rollers, a set of smooth rollers to further reduce the particle size (fig.3). The clay then goes on to a mixer (fig.4) where moisture content is adjusted so as to be suitable for hand throwing.

Figure 5 shows the hand throwing and pressing the tile into the mould, with the Aldershaw trademark ready to be imprinted via the lever mechanism raised to the left of the mould. When making floor tiles, the clay is sieved to ensure a fine particle size of less than 1 mm, to achieve a finely textured surface finish. All products in the range are made by hand, with beech wood moulds being used as the most hard wearing.

Depending on the size and complexity of shape, the drying process can take anything from four days to two months.

Firing is achieved using a natural gas fired moving hood kiln. Tiles are handset into refractory 'U Cassettes' (fig.6). The top temperature is 1045 degrees Celsius with two firings per week being undertaken.

Once firing and cooling is complete, the products are manually sorted and packed on to pallets for delivery (fig.7).



Fig.6 (above) 'U Cassettes' on a kiln car in the kiln.
 Fig.7 (below) Aldershaw products palletted and ready for dispatch.

Whilst the product range is predominantly red, buff and cream colours are achieved by using a Gault Clay to make a Cambridge mix and fireclay to make a small range of ivory-coloured floor tiles. A small, but growing, side of the business is specialist glazed floor tiles, terracotta ware, and medieval encaustic tile copies (fig.8).

The business has eleven employees, all of whom are local, some of whom work part-time, thus contributing in a small but important way to the local rural economy.

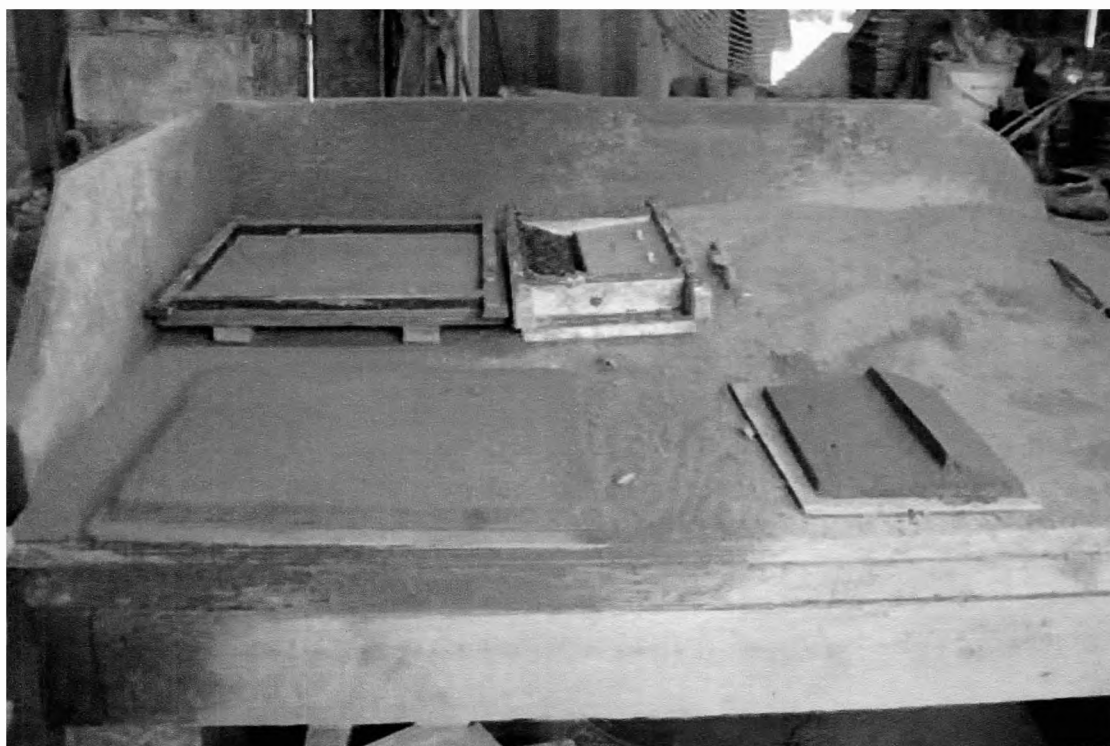


Fig.8 (above) Copies of medieval encaustic tiles ready to be boxed.

Fig.9 (below) A hand thrown Mathematical Tile with fixing hole, with a mould in the background.

During the visit, much discussion was had on the subject of Mathematical Tiles (fig.9),⁷ their particular use as a local architectural feature, and their links to the life of the Brick Tax, levied between 1784 and 1850.⁸ Early examples dating back to the 1730s have been found in Sussex, clear

evidence that they were in use before the advent of the tax, and indeed they were also subject to the tax when it was brought into being. Their “tile like” size and weight, in comparison to bricks, made them eminently suitable as an alternative to weather boarding, with the overlap hanging providing better water and fire proofing. Popularity of Mathematical Tiles grew during the Georgian period with many buildings in Brighton using a black glazed version, found to be most effective on the seafront.⁹

Much of Aldershaw’s work comes from repairs and refurbishments to such properties.

After a very interesting tour, the group adjourned to the showroom where we were treated to a very nice buffet lunch generously provided by Tony Kindell and his wife, Lindy. The society’s Chairman expressed his thanks, on behalf of the visitors and the British Brick Society for a most enjoyable visit.

MIKE CHAPMAN

Chair, British Brick Society

NOTES AND REFERENCES *

* Additional references to the account of the visit to Aldershaw Tiles supplied by the Editor.

1. A. Brooks and N. Pevsner, *The Buildings of England: Worcestershire*, New Haven and London: Yale University Press, 2007, pp.668-778, provides the most recent comprehensive account of the city’s buildings. *Ibid*, pp.708-757 covers the city centre and the area immediately to its north examined on the day.

2. B. Cherry and N. Pevsner, *The Buildings of England: London 2: London South*, London: Penguin Books, 1983, pp.481-502.

3. S. Bradley and N. Pevsner, *The Buildings of England: London 1: The City of London*, London: Penguin Books, 1997, p.369 with pl.24, for the Queen’s House; and *ibid.*, pp.354-371 for general account of the Tower of London.

4. N. Antram and N. Pevsner, *The Buildings of England: Sussex: East with Brighton and Hove*, New Haven and London: Yale University Press, 2013, p.385 as ‘Charleston Farmhouse’.

5. See notes 7 and 8, below.

6. A.J. Haselfoot, *The Batsford Guide to the Industrial Archaeology of South-East England*, London: B.T. Batsford, 1978, pp.11-12 (general account of the Sussex iron industry), with pp. 87, 95, and 117 for sites in East Sussex with visible remains..

7. The principal articles on the Brick Tax included in issues of *British Brick Society Information* are T.P. Smith, ‘The Brick Tax and its Effects - Part I’, *BBS Information*, 57, November 1992, pp.4-11; T.P. Smith, ‘The Brick Tax and its Effects - Part II’, *BBS Information*, 58, February 1993, pp.14-19; T.P. Smith, ‘The Brick Tax and its Effects - Part III’, *BBS Information*, 63, October 1994, pp.4-13; N. Nail, ‘Brick and Tile Taxes Revisited’, *BBS Information*, 67, March 1996, pp.3-15.

8. M. Beswick, *Brickmaking in Sussex: A History and Gazetteer*, Midhurst: Middleton Press, 1983, pp.50-51 with illustration 18, showing the method of fixing. M. Beswick, *Brickmaking in Sussex: A History and Gazetteer*, 2nd edn, Midhurst: Middleton Press, 2001, pp.50-51 with illustration 18. M. Exwood, ed., *Mathematical Tiles: notes of Ewell Symposium, 14 November 1981*, Ewell: privately printed, 1981, provides a summary of knowledge about Mathematical Tiles as of thirty plus years ago. See also, T.P. Smith, ‘Brick-Tiles (Mathematical Tiles) in Eighteenth- and Nineteenth-Century England’, *Journal of the British Archaeological Association*, 138, 1985, pp.132-164. See pp.00-00 of this issue of *BBS Information* for Kent and in Detroit.

9. N. Antram and R. Morrice, *Brighton and Hove*, New Haven and London: Yale University Press, 2008, pp.6, 71, and 132-3, with fig.72.

Book Review: Brick from the Great War to the Great Recession

The Twentieth Century Society, *100 Buildings, 100 Years*,
London: Batsford for the Twentieth Century Society, 2014,
208 pages, numerous photographic illustrations,
ISBN 978-1-884994-193-8, price £20-00.

For Great Britain, the Great War began on 4 August 1914. The remit of the Twentieth Century Society covers architecture since 1914 with the Victorian Society dealing with architecture from 1830 to August 1914. This book is based on the idea of choosing a single building for each year of the hundred years from the completion of the King Edward VII Galleries at the British Museum, London, in 1914 to the building of Bishop Edward King Chapel at Ripon Theological College, Cuddesdon, Oxfordshire, in 2013. Both J.J. Burnet and Niall McLaughlin worked in stone, although the galleries at the back door of the British Museum are steel-framed and the elaborate stone façade of fluted Ionic pilasters standing proud from a wall that is basically windows is essentially a skin.

The book is divided into nine sections. Catherine Croft provides an Introduction (pp.7-11) and after a '100 Years Timeline' (pp.12-19), and buildings representative of each of the five years of the Great War are presented without an introductory essay (pp.20-26). The remaining ninety-five of the last hundred years are divided into three periods, each with its own introduction. Gavin Stamp writes on 'The Inter-war Decades' (pp.27-32), Elaine Harwood on 'Post-war Architecture' (pp.86-91), and Timothy Brittain-Catlin on 'Postmodernism' (pp.151-3). Buildings from 1919 to 1951 occupy pages 33 to 85; those of 1952 to 1988 are on pages 92 to 150; and buildings from 1989 to 2013 can be found on pages 154 to 199. Further reading, an index, picture credits, and acknowledgements complete the volume. The last (on p.208) is a list of the seventy-six persons and institutions which have suggested the buildings and written the paragraphs about them. Each building chosen is illustrated, often in more than once to show different aspects.

There is inconsistency in how the dating of the choices is determined. Battersea Power Station appears under 1933, the year when Giles Gilbert Scott took over as architect from the recently deceased Theo Halliday. But the same knighted architect's Liverpool Cathedral is reported under 1978, the year of its completion, and almost two decades after Scott's own death in 1960.

Of the one hundred buildings discussed individually, just over a quarter are brick-built: the actual total of brick-built structures is twenty-eight. Some buildings are much discussed: Battersea Power Station has been mentioned in the previous paragraph and will be considered again in this review. Glyndebourne Opera House for 1994 (Michael and Patti Hopkins) and the British Library for 1998 (Colin St John Wilson) are both familiar to members of the British Brick Society who have been on the society's visits to them. Elizabeth Whitworth Scott's Royal Shakespeare Theatre as refurbished and extended by Bennetts Associates, the choice for 2010, is a building this reviewer used to see everyday when riding shotgun at the front of the school bus as it crossed the fifteenth-century Clopton Bridge in Stratford-upon-Avon.

Others will be far less well-known. C.R. Crickmer's St Andrew's Church of Scotland, Gretna, Dumfries and Galloway, the choice for 1918, is rough cast over brick with exposed brick used for the window heads and surrounds. It was one of three churches built at Gretna for the new housing for munitions workers at the new factory providing weapons for the forces. In the late 1920s, Giles Gilbert Scott designed two educational buildings with a central great tower. Under 1929, Rosemary Hill writes on the William Booth Memorial College, Denmark Hill, London, although she notes the similarity in mass to Cambridge University Library: the style is very different. The choice for 1943 is D Block at Bletchley Park, Buckinghamshire, a simple building awaiting restoration but one of considerable importance in the breaking of the encrypted wartime signals of the enemy. Accordia Housing in Brooklands Avenue, Cambridge, a development of high density housing on a brownfield site began construction in 2003 and was completed in 2008, the year under which it appears.

Some of the choices are buildings which are over-rated by some architectural historians. Alan Powers chose the Tayler & Green estate at Windmill Green, Ditchingham, Norfolk, for 1949. This Lowestoft-based practice designed a lot of similar small estates in the villages in the area of Loddon

District Council in south-east Norfolk; much more successful is the large estate in Loddon, itself. They are generous houses but one questions whether they reflect either a Norfolk vernacular tradition or create a new one. External walls are Fletton brick, not facing bricks, covered with pastel shades of paint, some in the 1980s fading badly.

Even more celebrated as a “cause” for the Twentieth Century Society is Battersea Power Station or rather its now partly roofless shell. No one seems to know what to do with this great hulk, but because Giles Gilbert Scott got involved one influential body of opinion thinks that it should be preserved in perpetuity. There is, however, a contrary view, ably expressed by Thom Gorst:

Yet even if these great buildings helped to turn the industrial shed into architecture, it needs more than this historical achievement to justify keeping them. Certain questions need to be asked. Is there a social benefit in doing so? Are the buildings worth saving in any case? And, perhaps most important of all — who says so?¹

When it was opened to the public one weekend in 2006, this reviewer went to have a look.² Its tortured recent tenurial history could reduce a strong man to tears: prime real estate with more than one shady financial deal rather than an important *brownfield* site in a very central area which could be developed as much needed *social* housing for local people, and not the glass-fronted, expensive flats for outsiders as the current proposals have them.³ If it must be preserved, I have one suggestion as to what to do with the power station’s bulk: lease the roofless structure to the United States Department of State for it to use the shell to create a new American Embassy in London; they have an option on the eastern part of the brownfield site. The brickwork is sound, the internal reinforced concrete may be in need of replacement but mostly seems not to be too damaged by exposure to the elements. The great open space in the centre could serve as an atrium on to which the offices could look, the gash where the southern wall has been taken down could be glazed, but the walls would provide the fortress the Department of State seem to want with their proposals for a wet moat round the projected embassy building. And it would be much cheaper than the glass, steel and concrete edifice proposed.

Gavin Stamp who wrote the blurb about Battersea Power Station half-heartedly acknowledges the role of Halliday & Agate in the design without telling the full story. Theo Halliday, the partner in charge, died suddenly early in 1933 when in his early fifties; George Agate, a much older man and already semi-retired and wishing to spend all his time at his north Wales home, wrote to Scott in the latter’s capacity as President of the Royal Institute of British Architects seeking advice and suggestions as to who might take the project forward. Scott obliged and created the blue print for sundry power stations over the following twenty years.

The schools illustrated are the predicable ones. Walter Gropius’ Impingham Village College, Cambridgeshire, instanced for 1939, has always struck this writer as far less of an inspiration to its pupils than G.L. Torok’s design for Luton Grammar School opened in September 1938, but then this writer has a certain bias: reader, I was educated there. The immediate post-1945 Hertfordshire schools are represented by Templewood Primary School at Welwyn Garden City, under 1950.⁴ The Smithson’s Smithdon High School at Hunstanton, Norfolk, for 1954, has iconic status and some influence; on the opposite side of Norfolk, Oriel High School, Gorleston-on-Sea, was built over a long period from 1954 to 1980 on the same principle of ground floor circulation and access to the first floor classrooms and laboratories by staircase between two teaching rooms but its corridors were decidedly too narrow for the number of children attending in the 1980s. Oliver Wainwright chose Benton Park School, Leeds, for 1960: he went to school there in a palace of concrete frame with brick infill. A later example, Burnham Copse Infant School, Tadley,⁵ given for 1985, was demolished in August 2010, a sad loss from Colin Stansfield Smith’s work for Hampshire County Council. Its sweeping roofs “will no longer enchant pupils” although “through its life on the printed page ... it will continue to inspire school designers”.

Other educational buildings are from Bristol and Oxford Universities. The Wills Tower at Bristol, by George Oatley, is the building of 1925; it is stone to the exterior and largely stone to the interior. Two Oxford college buildings are brick: Ahrends, Burton and Koralek’s 1980 extension to Keble College, visited by members of the society in 2004, and the Sainsbury Building at Worcester College, by Richard MacCormac, completed in 1983.

There are eight churches, including three cathedrals: the Roman Catholic one at Clifton, a suburb of Bristol from which the area bishop takes his title, under 1973, and those for the Church of England at Liverpool, already noted under 1978, and Guildford, given under the date of final completion, 1965, four years after its consecration. Only the last-named is a brick building. Under the following year, 1966, Our Lady Help of Christians at Tile Cross by Richard Gilbert Scott (son of Giles Gilbert Scott), one of two “cheap churches” for the Roman Catholic Church in the suburbs of east Birmingham offers a notable contrast both to the cathedrals and to Basil Spence’s rather more lame efforts after 1950 for the Anglicans in not so distant Coventry. The external walls are dark brown brick in Flemish Bond but the real joy of the building is the soaring canopy of ridged glass set in a concrete frame to the worship space. The lead set by both Clifton Cathedral and the Roman Catholic cathedral at Liverpool was developed by architects working for the Roman Catholic Church in the late 1960s and the 1970s: Richard Gilbert Scott’s work is amongst the most successful in the style. Also for the Roman Catholics, Francis Xavier Velarde’s work in north-west England finds a place in his 1953 English Martyrs church at Wallasey on the Wirral peninsula, Cheshire. Velarde designed his buildings to be built in brick, exposed both externally and internally, creating a powerful sense of the transcendence between earthly things and worship. Father Peter Newby chose this, almost Velarde’s last completed work, as the culmination of his career which began in the early 1930s.

As a volume, this bears comparison with two other volumes. *Scots Style 150 Years of Scottish Architecture*, Fiona Sinclair’s compilation for the Royal Incorporation of Architects in Scotland,⁶ surveying 1834 to 1983, was organised on the same principle of a building for each year. The new book suffers in comparison: thirty-six of the choices are from Greater London and four of the others are from just beyond the confines of the M25.⁷ In contrast, the Sinclair volume has thirty-one from Edinburgh and thirty-six from Glasgow but these are from over a longer time span. Here, too, are also a goodly number of buildings from Aberdeen, Dundee and Inverness. In *100 Buildings, 100 Years* outside of London only Birmingham, Bristol and Liverpool, each with two entries, and Cambridge, Manchester and Oxford, three entries apiece, rate more than a single building. Thom Gorst’s *The Buildings Around Us*, published in 1992, has already been noted in this review.⁸ It cites fifty building types from 1830 to 1992, of which thirty-two are post 1914. Of these only eleven utilise a primary example from London, with four from just beyond the M25, sixteen from the rest of the United Kingdom, and one, prefabricated housing, a more general topic found across the country, and, as with other building types, Gorst provides various examples rather than the single example instanced by the Twentieth Century Society.

D.H. KENNETT

NOTES AND REFERENCES

1. T. Gorst, *The Buildings Around Us*, London: E. & F.N. Spon, 1995, p.86. Battersea Power Station is considered *ibid.*, pp.84-96. The other building referred to in the quotation is Scott’s Bankside Power Station, now Tate Modern.
2. The site was opened to the public one weekend in 2006 and an expensive-looking brochure was produced by the then owners, an Irish consortium; the following week these owners sold the site.
3. The financial pages of the national press have covered the story extensively, most recently ‘Flat sold in spring for £1m. Winter asking price, £1.5m. And it hasn’t been built yet’, *The Guardian*, 29 November 2014, p.7. The word “obscene” is not too strong a reaction. Since the initial writing of this review, attention has been drawn to further examples of the “social cleansing” of London: R. Booth, ‘Londoners priced out in “buy-to-leave” property market’, *The Guardian*, Saturday 27 December 2014, pp.1 and 5. The whole question of the ownership of brownfield and built sites is considered in J. Meek, *Private Island: Why Britain now Belongs to Someone Else*, London: Verso, 2014.
4. Gorst, 1995, pp.100-103, with architectural details and plan.
5. Gorst, 1995, pp.149-151, including plan.

6. F. Sinclair, *Scots Style: 150 Years of Scottish Architecture*, Edinburgh: The Scottish Academic Press for the Royal Incorporation of Architects of Scotland, 1984.
7. The four are 1926, the Shredded Wheat Factory, Welwyn Garden City, Hertfordshire; 1937, Greenside, Virginia Water, Surrey; 1950, Templewood School, Welwyn Garden City; 1965, Guildford Cathedral, Guildford, Surrey. From the periphery of London, Gorst cites Jaywick Sands, Clacton, Essex, 1930; Templewood School, 1949; Maidenhead Library, Maidenhead, Berkshire, 1973; Chelmer Vuillage, Essex, 1974.
8. See note 1 above for publication details of Gorst, 1995, which has in common with *100 Years, 100 Buildings* Battersea Power Station, the Royal Festival Hall, Templewood School, Preston Bus Station, Milton Keynes Central, and Burnham Copse School, Tadley, Hampshire.

BRITISH BRICK SOCIETY AT LEEDS INTERNATIONAL CONGRESS 2015

The 2015 Leeds International Congress will be taking place at the University of Leeds from Monday 6 July 2015 to Thursday 9 July 2015.

At Leeds IMC 2015, the British Brick Society is sponsoring session 702 on Tuesday 7 July 2015 at 14.15 to 15.45. The session is entitled 'Medieval Brick Buildings: Patronage and Construction'. The session is a review of recent work on the patronage of brick in the middle ages, who paid for the buildings and how they were constructed.

There are three speakers. David H. Kennett will be describing 'Brick Patronage in a Poor Town: Great Yarmouth in the later middle ages', examining how a town struck by several disasters, arising from both disease and environmental causes, relied on outside patrons to finance what was built in brick in the town between 1350 and 1580. BBS member, Michael Tutton is speaking on 'Robert Darcy 1391-1449 and the Patronage of Brick: The Moot Hall, Maldon, Essex'. Amongst other aspects this will demonstrate the level of income needed in England in the first half of the fifteenth century to contemplate building in brick. A complete change of focus is provided by the third speaker, Richard Piran McCleary of the Department of Art of the University of Edinburgh, whose topic is 'Saljuk Brick Architecture in Twelfth- and Thirteenth-Century Anatolia'; here brick was in fashion for a relatively short period in an area where there is a ready supply of an alternative building material, good quality stone.

The British Brick Society is exhibiting at the 'Historical and Archaeological Societies Fair' at Leeds IMC on Thursday 9 July; this runs from 10.30 to 18.30.

The British Brick Society has been offered a paper on 'Shared Assumptions or Conflicts of Interest: Patron and Brickworker in Late Medieval and Early Tudor England' as a contribution to a possible session hosted by the British Brick Society at Leeds IMC 2016. Further contributions to this proposed session are invited.

Changes of Address

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

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

BRITISH BRICK SOCIETY

MEETINGS in 2015

Saturday 18 April 2015

Note the **new date**

Spring Meeting

Oxford — South and West

Morning: The Queen Street area, including retail and former factory buildings now converted to retail use, new office buildings, St Peter's College, and the buildings of the Oxford Union. *Afternoon:* The Tawney house beside one branch of the River Thames, the new buildings in the former brewery area, former industrial buildings near Oxford Station, and ending at Seacourt Tower and Botley church.

Saturday 30 May 2015

Annual General Meeting

Black Country Living History Museum, Dudley, West Midlands

With visit to the brick buildings of the museum after the meeting.

Saturday 27 June 2015

London Meeting

Battersea

Battersea Power Station is infamous but the former borough has much more to interest the brick enthusiast. Battersea Old Church is eighteenth century and there is a fine 1890s brick church by James Brooks. At the foot of Lavender Hill is a fine brick-built department store (Arding & Hobbs); brick public buildings by Edward Mountford are the public library, the former town hall now arts centre, and the former Battersea Polytechnic whose shell is preserved in the conversion to expensive housing.

Saturday 25 July 2015

Summer Meeting

Brick Churches in north-east Buckinghamshire and other brick buildings in the area

Bletchley, Fenny Stratford, Bow Brickhill, are all due to the patronage of Browne Willis, the local landowner; Willen church was designed by the scientist Robert Hooke for his tutor at Westminster School. There are also interesting rural railway stations.

Saturday 19 September 2015

Note the **new date**

Brickworks Meeting

The York Handmade Brick Company, Alne, North Yorkshire

Details of the Spring Meeting in this mailing.

*Full details of the Annual General Meeting and the Visits in June and July 2015
in future BBS Mailings*

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.

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