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***BRITISH BRICK SOCIETY***

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Members of the BAA may elect to join its Brick Section and, as such, will be eligible for affiliation to the British Brick Society. They should inform the Hon. Secretary of the BBS of their address so that they can be included in the membership list.

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Cover: The Moot Hall, Aldeburgh, Suffolk
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## EDITORIAL

This Editorial has no theme: concern about the Roundhouse must await a future issue. The present number of Information is much centred on the activities of the society: visits and meetings between August 1991 and September 1992, together with advance notice of future events.

But we do begin an important set of articles on 'The Brick Tax and its Effects' which is in four parts. Subsequent parts will appear in the next four issues of Information. Beginning also in Information 58 (February 1993) is the first part of a multi-part article on 'Brick and the Railway before 1850'. But the stock of articles in the editor's files remains very low.

The focus on dragons in Information 56 (July 1992) brought notice of several others: of 1894 at no. 22 Pavement, York; of a similar date in Hull; at Great Bookham, near Leatherhead, Surrey; and one observed by society members in passing on 19 September 1992 on the porch of Prospect House, Broomswell, Suffolk. These and any others notified will be allowed out of Grendel's lair in Information 59 (July 1993). An interesting note on the literary use of terracotta dragons in Sloane Street, London, has been received. And while noting this, I must apologise to T.P. Smith for misquoting Ian Hesselberg's book. The correct title is London in detail (1986). The dragon is illustrated on the 108th unnumbered page.

The next issue of Information will be worked on over the Christmas holiday. It will be dispatched for printing on Monday 4 January 1993, although members may not expect to receive it until February 1993. Anyone with urgent material to include is requested to forward it well before 25 December 1992. Otherwise please keep items back. The editor is moving house in January 1993, probably involving a complex double move within three months. The date of 9 February 1993 for return of slips about the visit to Luton and Ampthill on Saturday 3 April 1993 is a very firm one. The editor's new address will be posted in Information 59 (July 1993).

DAVID H. KENNETT  
Editor

## BRICK PRICES IN THE WESTERN MIDLANDS

Martin Locock

Brick buildings of pre-1550 date are rare from Warwickshire westwards: Wight listed ten in her Brick Building in England ... (1). To these one can now be added: a barrel-vault at Dudley Castle (2) and one subtracted, since Plaish Hall, Shropshire, has been re-dated (3). The first traces of mass production appear c.1600 in Yardley, Wolverhampton, and Worcester (4). By the early 1700s there is a flourishing industry: when Worcester Guildhall was built in 1721, nine local brickyards provided bricks as well as some being carried along the river (5). Evidence for brick prices is sparse; that which is known is given in the Table (overleaf)



TABLE 1

## BRICK PRICES IN THE WESTERN MIDLANDS

Date	Cost	Location	Reference
1576	30s per thou. (may include large element for carriage)	Stratford-on-Avon, Warks.	Whitehead, 1981
1587	8s 4d per thou. (may include carriage)	from Hanley, Worcs. used at Ledbury, Worcs.	Whitehead, 1981
1650	1s 6d per thou.	Hartlebury, Worcs	Richards, 1939, 40
1650	3s per thou.	Stratford-on-Avon, Warks.	Richards, 1939, 40
1733	5s per thou.	Lichfield, Staffs., area	Richards, 1939, 152
1762	10s 6d per thou.	Birmingham area	Locock, 1990, 11
1815	30s per thou. at the kilns	Birmingham area	SRO D1287 1/30
1816	30s per thou.	Birmingham area	SRO D1287 1/30
1824	33s per thou.	Birmingham area	SRO D1287 1/31
1827	29s per thou.	Birmingham area	SRO D1287 1/31

## NOTES

1. J. Wight, Brick Building in England from the Middle Ages to 1550, London: John Baker, 1972, 356-357 three in Shropshire and one in Staffordshire, 390-393 five in Warwickshire and four in Worcestershire.  
(To these may be added Beaudesert, Staffs., the great hall of the palace of the bishops of Lichfield, see D.H. Kennett 'Beaudesert Hall', BBS Inf., 40, Nov 1986, 11-12. A future issue of Information will have a paper on the hearth tax records of brick houses in Cheshire, Derbyshire, Shropshire, Staffordshire, and Warwickshire. This may identify other early brick houses. D.H.K.)
2. M. Locock, 'A dated type-series of hand-made bricks from Dudley Castle, 1550-1950', W. Midlands Pottery Res. Group Newsletter, 10, 1988, 10.
3. E. Mercer and P.A. Stamper, 'Plaish Hall and early brickwork in Shropshire', Trans. Shrops. Archaeol. Hist. Soc., 66, 1989, 90-97.
4. M. Locock, 'The 18th-century brickmaking industry in the Forest of Arden', Warks. History, 8, i, 1990, 3-20, ref. to p.7. See also K. Whitehead, 'Brickmaking in the woodlands of Warwickshire and Worcestershire in the 17th century', Vernacular Architecture, 12, 1981, 42-51.
5. E.F.T. Richards, The Building Trades in the Midlands in the 17th Century, unpublished M.A. thesis, Birmingham University, 1939.

## ADDITIONAL REFERENCE

SRO D1287    Bradford Papers, Staffordshire Record Office, William Salt Library, Stafford

# THE BRICK TAX AND ITS EFFECTS - Part I

Terence Paul Smith

## I. Introduction

The Brick Tax, first imposed in 1784, increased at various times, and repealed in 1850, had, it is claimed in several places, various effects - on the brickmaking industry itself, on its products, and on building practice. The purpose of this paper is to examine some of those alleged effects, less with the intention of arriving at definitive conclusions (at least in all cases) than with the aim of opening up further discussion. This publication, bringing together as it does people with varied interests and areas of expertise, seems a proper place to air some ideas in order to stimulate further reflexion on this topic. In some cases, it will be proposed, further research is required.

The claimed effects of the introduction of the Tax - those, at least, that I have come across in various places - are as follows:

- (1) Seemingly most obvious and incontrovertible, an increase in the prices of bricks compared with pre-1784 levels.
- (2) As a consequence of (1), the adopting by builders, at least in some areas, of substitute (and untaxed) materials - clay lump in East Anglia, for example, or clapboarding and tile-hanging in parts of the South East, principally southern Essex and Kent, Surrey, and Sussex.
- (3) As a special case of (2) - and therefore also a consequence of (1) - the manufacture and use, or at least the vastly increased manufacture and use, of brick-tiles (mathematical tiles), whereby the appearance of brickwork could be simulated whilst avoiding payment of the Tax, which (the argument runs) was not levied on brick-tiles; this development affected principally, Kent, Surrey, and Sussex, and other regions to a lesser extent, or not at all.
- (4) Also as a consequence of (1), the increased use of a brick frontage with inferior materials - often eighteenth- or nineteenth-century 'decadent' timber-framing - used for the end and rear walls, party walls, and internal partitions.
- (5) In an attempt to lessen the effect of (1), a slight increase in the size of bricks, particularly in the North of England (where the larger size remained standard even after repeal of the Tax); this resulted in a saving, since the Tax was assessed on the number of (green) bricks produced, not on their total volume.
- (6) As a special case of (5), the manufacture and use (over restricted areas) of particularly large bricks, such as Wilkes' Gobs in Leicestershire.
- (7) The discouragement of the use of moulded and decorative bricks for the creation of particular architectural effects; and the subsequent encouragement of them when the Tax was repealed in 1850.
- (8) Yet again as a consequence of (1), the encouragement of stucco in order to mask poor quality (and hence cheaper) bricks in the actual construction. And finally:
- (9) Once more as a consequence of (1), the use, by builders, of Rat Trap Bond, resulting in a 34-44 per cent saving in the number of bricks used.

- (10) A general retardation of the brickmaking industry, in particular encouraging it to remain small-scale and local and inhibiting the introduction of mechanisation into the several brickmaking processes.

## II. Discussion

Each of these alleged effects may be considered separately.

(1) That there was a marked increase in the price of bricks in the final two decades of the eighteenth century - that is, in the years following the introduction of the Tax - is well documented and beyond question; that it was due to the Brick Tax is a far more dubious claim, and one which the nature of the evidence makes it less than straightforward to evaluate. This is because at precisely the time of the imposition of the Tax there was a general increase in prices, as reflected in the valuable Phelps Brown/Hopkins cost-of-living index. I have previously published a graph (here reproduced as fig.1) showing three series of prices between 1777 and 1814, together with secular trend lines,<sup>1</sup> and another (here reproduced as fig.2) which brings together the Phelps Brown/Hopkins index with the indexed figures (1760 = 100)<sup>2</sup> for prices of grey stocks purchased by Greenwich Hospital over the period 1700-1828; the Greenwich figures were chosen because they comprise an almost complete series.<sup>3</sup> What emerges from this comparison is that the rises and falls in brick prices follow

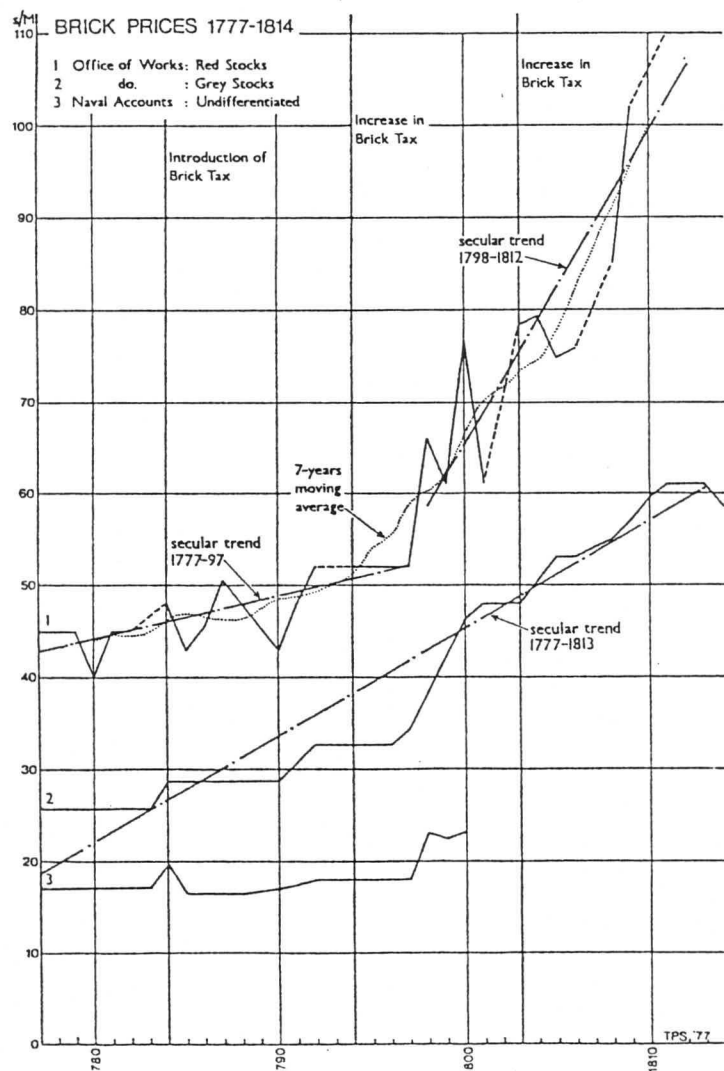


Fig.1

## Brick Prices and the cost of living 1700-1828

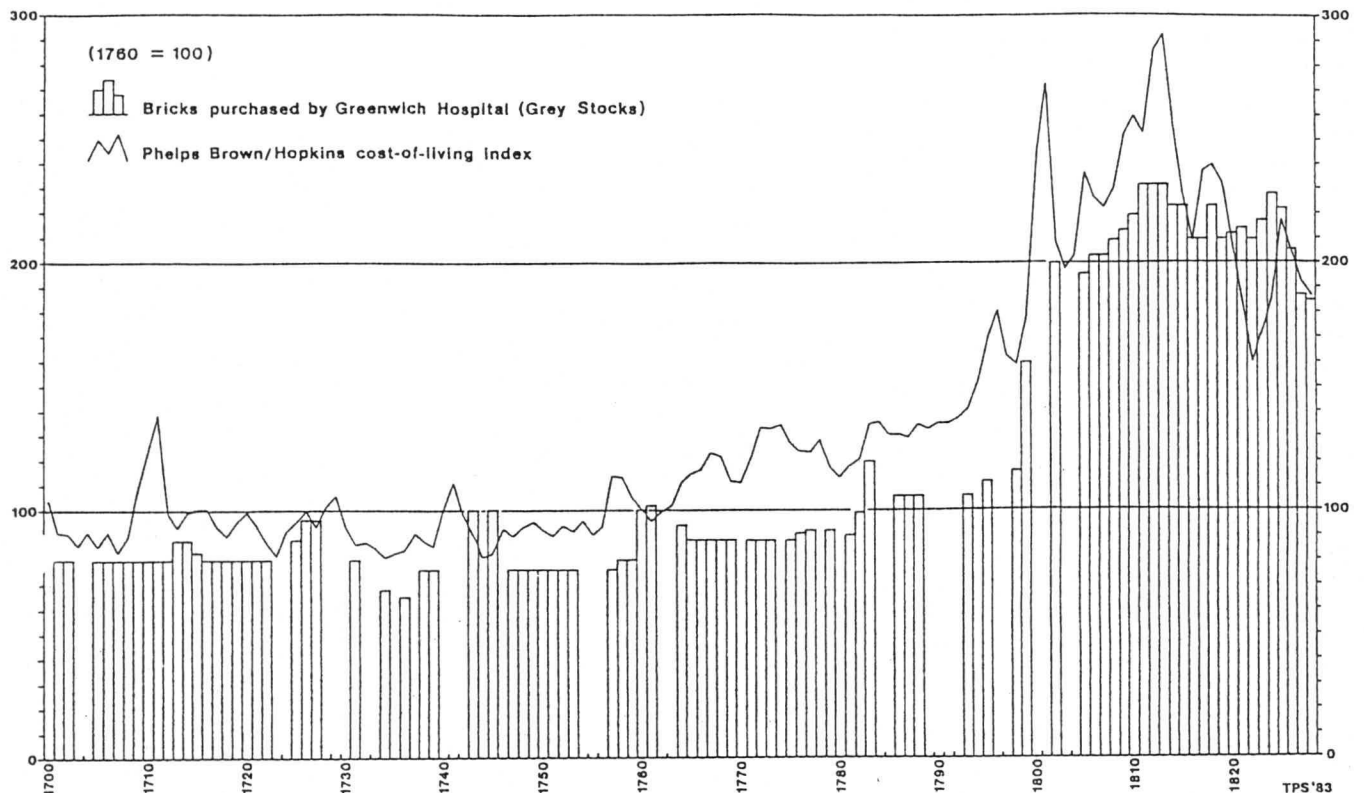


Fig. 2

those of the general cost-of-living, though often lagging behind by a short period - as one might expect. Both sets of indexed figures reach a peak around 1810 and both are falling by the 1820s. It is worth noting, too, that the suppliers to Greenwich Hospital actually managed to reduce their prices in 1786-8 from what they had been in 1783 - a year before the Tax!

What seems clear is that brickmakers were often able to absorb the imposition of the Tax - by increasing efficiency at the yard, by laying off workers, by reducing wages, or even by accepting slightly reduced profits. Those investing capital may have complained - as such will when their products are being taxed for public purposes - but there is scant evidence of any appreciable rise in brick prices as a direct result of the imposition of the Tax. Or looked at slightly differently, such price-rises as may be attributable to the Brick Tax are small beer compared with the chronic rises due to other factors; and it is quite curious that so many researchers should have uncritically accepted that such high increases could be caused by so small a tax! It is, of course, impossible to disentangle the two factors with any precision, but we may be sure that prices of bricks would have risen, and risen markedly, even without the imposition of the Brick Tax, and it is at best tendentious to speak of 'the artificial inflation of brick ... prices through the imposition of a tax on manufacturers in 1784....'<sup>4</sup>

It needs also to be remembered that builders were going to pay more than the yard price anyway, because of the costs of carriage, and it is therefore wholly unrealistic to quote tax rates as a percentage of the price 'at the kiln'. Carriage was especially high

when carts were used. On the Bedford Estate in the first half of the nineteenth century 'the charge for carrying common bricks a distance of only one mile was 9d per thousand and since the basic price of the bricks would have been 34s a thousand, this added just over 2 per cent ... [and] by the time the distance had been extended to five and a half miles the cost of transport had risen to 14s, putting an extra 41 per cent on the final bill.'<sup>5</sup> In other words, the cost of carriage over only a few miles added considerably more than the tax, which stood at 5s. 10d. per thousand in those years. Rail transport was considerably cheaper: according to Edward Dobson, writing in 1850, the rate for under forty miles was 7d. per mile,<sup>6</sup> so that a journey of five and a half miles would be 3s. 2½d. However, railways did not always run in the right direction, and to the rail freight charges would have to be added cartage to the railway (except where the yard had its own sidings) and cartage from railhead to building site. The same applies to transport by canal: 'Quicker and more reliable than road haulage, canal carriage was also very much cheaper; bulky goods of low value such as bricks ... were carried at one quarter to one half the cost of road transport.'<sup>7</sup> But cartage would still be required for part(s) of the journey, and the advantage was greater for canal journeys over relatively long distances.

Clearly, if we consider only the prices of bricks at the yard we are seriously going to understate the price that a builder would expect to pay for his materials.

The conclusion - viz. that brick prices were rising, and would have risen, anyway irrespective of the imposition of the Brick Tax - will, inevitably, be relevant to our consideration of some of the other alleged effects of that Tax.

(2) Some scholars have had little doubt about the rôle of the Brick Tax in encouraging the use of alternative materials. Thus, the late Alec Clifton-Taylor: 'It is largely because of the brick tax that weather-boarded cottages in the South-East - which is where most of them are - will nearly always be found to date from the late eighteenth or first half of the nineteenth centuries.'<sup>8</sup> In an unnecessarily tetchy review of Clifton-Taylor's essay, Sarah Pearson writes that his suggestion 'is contrary to prevailing impressions and needs far more substantiation than is provided.'<sup>9</sup> The last point is certainly true, though there seems to be a degree of misunderstanding of Clifton-Taylor's position. As I read him, he is not arguing that brick building of cottages declined or was even arrested during the tax years but that it would have increased even more had it not been for the Tax: for buildings which might have been erected in brick were in fact built of other materials.

The case, of course, has all the difficulties inherent in any counterfactual claim, and I am not concerned to endorse Clifton-Taylor's position. Clearly, there are two issues involved here - first, the nature of the raw data and, secondly, its aetiological interpretation. So far as clapboard (weather boarding) is concerned, a great deal more research is needed to establish the facts. 'Prevailing impressions' just will not suffice; nor, for that matter, will estimates of age based on visual features: a clapboard building of 1780 is not going to differ from one of 1790, nor one of 1845 from one of 1855, and yet precise dating is crucial for this particular argument: one needs to be certain which side of 1784 or 1850 particular buildings fall. Clapboarding, at least in Kent, was used from the seventeenth century until well into the nineteenth century, and any claim for (or against) a Blütezeit in the period 1784-1850 will have to be supported by hard evidence - which means documentary evidence, including cartographical evidence where appropriate or available. In 1981 Norman Nail entered a plea for further research into this question.<sup>10</sup> So far as I am aware, that research has not yet been undertaken.



The case is otherwise as regards building in clay lump, where John McCann has recently questioned the long-standing view that this is a traditional building material, and has cogently argued that it dates only from the late eighteenth century onwards.<sup>11</sup> Its major period of use does, indeed, seem to coincide fairly closely with the tax years, although it continued in use for lesser agricultural buildings after 1850.

The aetiological question, however, is, as usual, perplexing. We have to reckon with explicit statements by the promoters of clay lump that it was 'not the least merit ... that the materials [mud and pise in this case] are nearly all neither taxed nor taxable.'<sup>12</sup> Others supported this assertion of Holland's, and F.W. Etheredge remarked that clay lump was 'not liable to brick-duty'.<sup>13</sup> The matter did not go undisputed, however, and the Sussex Express in 1833 opined that '"home-made bricks" of unfired clay were liable to a duty of one shilling per hundred, irrespective of size.'<sup>14</sup> Certainly clay lump was cheaper than fired brick, and would have been so even without the Tax, especially since, as we have seen, brick prices were rising chronically in any case. Advocates of a product are, of course, liable to urge as many advantages as they can seize upon, but their urgings should not always be taken at face value. The increase in the use of clay lump in the relevant years may owe something to the Brick Tax; but it perhaps owes more (possibly all) to the general price-rise irrespective of the Tax and to the enthusiasm of its promoters.<sup>15</sup>

So far as clapboard and clay lump are concerned, the matter remains undecided. There is also the difficult question of why some materials were so restricted regionally. The use of clay lump is determined by geological factors, but these are not operative in the case of clapboard using imported softwoods.<sup>16</sup> Clearly, there remains full scope for that research which Norman Nail first urged a decade ago.

Tile-hanging is another matter altogether, for here certainty is attainable. It has been claimed that the 'brick tax also made tile-hanging popular in walls or [sic, presumably for 'of'] timber framework, as roof tiles were untaxed...'.<sup>17</sup> The latter assertion is straightforwardly mistaken: plain tiles were taxed at 3s. per thousand in 1784. The various decorative tiles often used for tile-hanging would have come under the 'sweeping-in clause' at the end of the Act and again the rate was 3s. per thousand. Norman Nail also makes a telling point not normally considered. The legislators were only too aware that brickmakers were attempting to circumvent the Tax by manufacturing bricks of larger size, and in 1801 this was dealt with by a further Act. 'At no time, however, while the tax was in force was it ever suggested that it might result in tile hanging or brick tile hanging displacing brickwork proper and, indeed, inspection of the rate structure shows this would be a very unlikely result.'<sup>18</sup> Tile-hanging begins in the late seventeenth century and lasts well into the post-Tax Victorian period.<sup>19</sup> Once again, it needs to be demonstrated, not merely asserted, that the Blütezeit was in the period 1784-1850. Even if this were proved, the aetiological connexion with the Brick Tax would not be established. Tile-hanging on a softwood frame may have been cheaper than building in brick, but that because bricks became more and more expensive throughout the period irrespective of the Tax, as argued under (1) above. In any case, both timber and tile prices were rising at the same time. Further, '[a]s a rule the tiles used for hanging on the walls were flatter and thinner than those on the roofs, owing probably to the process of selection...';<sup>20</sup> such selective use would have increased their cost; so too, when they were used, would the purpose-made decorative tiles (only rarely used on roofs) - fishscales and the rest - and angle-tiles. Moreover, in a city like Canterbury - and arguably elsewhere - tile-hanging is mostly

(though not exclusively) applied to existing timber-framed buildings, usually on a jettied upper floor, where refacing in bricks was not feasible. There are examples of tile-hanging applied ab initio to new softwood framed buildings, but they are a small minority.<sup>21</sup> Tile-hanging, we may be certain, was not resorted to in order to avoid the Brick Tax.

Recently, David Jenkins has remarked that the 'imposition of this tax ... in 1784 had had a counter-productive effect, making brick artificially expensive and stifling its use in areas where stone could be quarried cheaply.'<sup>22</sup> Once again we need to be careful to keep separate the raw data and their causal explanation. In some areas at least the situation is in accord with Jenkins' basic observation: in the stone-building region of Banbury, for example, Raymond Wood-Jones has observed that brick (together with blue slate) 'did not spread to outer parts of the region until the latter part of the 19th century, where meantime the continued use of the traditional native materials assisted in the perpetuation of traditional and regional forms of minor domestic architecture.'<sup>23</sup> 'The ready availability of the native stone provided no inducement for the introduction of brick, whilst the taxes on brick at the end of the 18th century would provide a further deterrent...'<sup>24</sup> In the area of Ragstone quarrying around Maidstone in Kent, on the other hand, it was only in the immediate vicinity of the quarries - virtually on the quarry edges - that the introduction of brick was in any way retarded. In any case, where brick was slow to be adopted this is sufficiently accounted for by the rising prices of bricks and their transportation without laying any blame on the Brick Tax, a situation that we have already encountered. Transport of fuel for brickmaking is an added complication: where this was relatively easy brick might well oust locally available stone. In the predominantly stone-building county of Northamptonshire, for example, John Steane has observed that the canals which traversed the county 'eased the transport and distribution of coal used in firing brick, and early-nineteenth-century brick buildings are common in villages, ten miles on either side of the canals.'<sup>25</sup> We may conclude that there is no simple connexion, if any connexion at all, between the Brick Tax and the often tardy introduction of the material into traditionally stone-building regions.<sup>26</sup>

(To be continued)

#### Notes and References

1. T.P.Smith, 'Refacing with Brick-Tiles,' Vernacular Archit., 10, 1979, 33-6. There are a few additional comments in E.Marsh, 'The Brick Tax', BBS Information, 35, February 1985, 2.
2. T.P.Smith, 'Brick Prices and the Cost of Living: 1700-1828', BBS Information, 32, February 1984, 3-4; cf. E.H.Phelps Brown and S.V. Hopkins, 'Seven Centuries of the Prices of Consumables, Compared with Builders' Wage Rates', Economica, 23, 1956, 296-314.
3. W.Beveridge et al., Prices and Wages in England from the Twelfth to the Nineteenth Century, vol.1, London, 1965, p.298. Not only do these prices form an almost complete series, but the bricks are also bricks of the same type. This is an important consideration which is sometimes ignored by those who simply compare a price of xs. per thousand in year t<sub>1</sub> with a price of ys. per thousand in year t<sub>2</sub>. One should also allow for carriage over different distances, which could heavily affect prices at the building sites. (The matter is dealt with a little more fully below.)
4. J.Bond, S.Gosling, and J.Rhodes, Oxfordshire Brickmakers, Oxfordshire Museums Service Publications no.14, Woodstock, 1980, p.15. Whilst in critical vein, it is only fair to record that I myself

once wrote that repeal of the Brick Tax 'would have had the effect of reducing considerably the price of brick building from 1850 onwards...': T.P.Smith, 'Rat-trap Bond in Bedfordshire', Beds. Magazine, 14, 112, Spring 1975, 346. This was said with all the conviction of lack of research, and I now retract the remark.

5. A.Cox, Survey of Bedfordshire: Brickmaking: a History and Gazetteer, Bedford, 1979, p.31.
6. E.Dobson, A Rudimentary Treatise on the Manufacture of Bricks and Tiles, London, 1850, reprinted, ed. F.Celoria, as J.Ceramic Hist., 5, 1971, vol.I, p.114. For journeys over forty miles the rate was 6d. per mile.
7. P.J.Perry, A Geography of 19th-Century Britain, London and Sydney, 1975, p.14.
8. A.Clifton-Taylor in R.Brunskill and A.Clifton-Taylor, English Brickwork, London, 1977, p.40. In his larger (and decidedly better) discussion within his general study of building materials Clifton-Taylor makes it clear that he is referring to country cottages, not to houses in towns: A.Clifton-Taylor, The Pattern of English Building, 4th ed., ed. J.Simmons, London and Boston [Mass.], 1987, pp.228, 301. Cf. also H.Forrester, The Smaller Queen Anne and Georgian House, Chelmsford, 1964, pp.51-3: 'An effect of this tax ... was the resort to timber framing in deal covered either with lath and plaster or with weather-boarding; or the use of brick up to the first floor and timber framing above.'
9. S.Pearson, review of Brunskill and Clifton-Taylor, 1977, in Vernacular Archit., 10, 1979, 40.
10. N.Nail, The Brick, Tile, Stone and Slate Taxes of the Late 18th and Early 19th Centuries, paper presented to the Mathematical Tile Symposium, Bourne Hall, Ewell, 14th November 1981, cyclostyled notes, p.3.
11. J.McCann, 'Is Clay Lump a Traditional Building Material?', Vernacular Archit., 18, 1987, 1-16.
12. Henry Holland, quoted in McCann, 1987, 8.
13. F.W.Etheredge, quoted in McCann, 1987, 8.
14. Quoted in McCann, 1987, 8; I do not know the warrant for the newspaper's assertion. If it is true, it means that clay lump was being taxed at the rate for bricks of larger size - viz. 10s. per thousand. Since (fired) bricks were taxed by the number at the green stage then a tax on clay lump would, I suppose, be natural: clay lump is, after all, only a kind of large, unfired brick.
15. D.Bouwens, 'Clay Lump in South Norfolk: Observations and Recollections', Vernacular Archit., 19, 1988, 10-18, confirms the late date of examples and gives (at 18) the following suggested reasons for its adoption: shortage of timber; expense of bricks because of transport costs; clay was ready to hand and required only unskilled labour. The Brick Tax is not mentioned.
16. J.M.Proctor, East Anglian Cottages, 2nd ed., Ely, 1981, pp.42-3 is nicely sceptical: weatherboarding 'is said to be the result of various taxes imposed on bricks from 1784 to 1850 but this seems an unlikely explanation. Weatherboarding might be more rain repellent than plaster but South Essex [where East Anglian clapboarding occurs - see his Map 5, p.44] is particularly dry - or did it rot too readily further north? Or were brick taxes imposed more rigorously in the plaster/weatherboard areas than elsewhere?'
17. L.F.Cave, The Smaller English House, its History and Development,



- London, 1981, p.205. The same mistake occurs in K.Hudson, Building Materials, London, 1972, p.29, and in J.Woodforde, Bricks to Build a House, London, 1976, p.71.
18. Nail, 1981, p.2; also N.Nail, 'Brick and Tile Taxes', in M. Exwood, ed., Mathematical Tiles: Notes of Ewell Symposium, 14 November 1981, Ewell, 1981a, p.31.
  19. Cf. S.E.Rigold, 'Domestic Buildings', in S.G.McRae and C.P.Burnham, The Rural Landscape of Kent, Wye, Kent, 1973, p.188.
  20. E.Guy Dawber in W.Galsworthy Davie and E.Guy Dawber, Old Cottages and Farmhouses in Kent and Sussex, London, 1900, re-issued Rochester, 1981, p.23.
  21. Personal observation in Canterbury and elsewhere.
  22. D.Jenkins, 'Introduction' to [J.Lacroux], Architectural Brick-work, London, 1990 (Original edition: La Brique Ordinaire, Paris, 1878), p.6.
  23. R.B.Wood-Jones, Traditional Domestic Architecture of the Banbury Region, Manchester, 1963, p.183.
  24. Wood-Jones, 1963, p.244.
  25. J.M.Steane, The Northamptonshire Landscape, London, 1974, p.264.
  26. There is a remarkable assertion in R.Reid, The Shell Book of Cottages, London, 1977, p.72, to the effect that 'The railways were important customers of the brickmakers but the heavy tax on bricks, which was not abolished until 1850, forced them to use stone wherever possible.' A similar statement appears in Hudson, 1972, p.50. I have no evidence ready to hand to refute this; but surely it is not true? I should be grateful for others' comments - preferably as contributions to Information.

### The Furthest Dragons!

Recently, I came across the following in Richard Apperly's essay 'The Federation Period' in Robert Irving, editor, The History and Design of the Australian House, Melbourne: OUP, 1985, p.100: 'Many patterns of crenellated or filigreed ridge tiles were available [for suburban house roofs in Australia in the decades around the turn of the century], together with scrolled or pillar-and-ball finials. Most splendid were the winged dragons: some of which still survive slightly the worse for wear in suburbs of Melbourne, Hobart and Perth.' A beautiful coloured plate at p.97 shows one example (location not stated) in good condition: a fine dragon crouches with his wings up and his neck craning forward, tongue protruding. His tail curves round against the foot of the finial-tile. As a variation on the theme, another house, illustrated on the same page and again without the location given, has two kangaroos - most appropriate! As the number of British dragons creeps up, it is good to find dragons so far away. Are there others - perhaps in other former British colonial areas? Or for that matter, elsewhere?

T.P.Smith

# BOND IN BRISTOL

David H. Kennett

Cromwell Road, Bristol BS6, was developed at various dates in the nineteenth century. The oldest house, number 89, is a stone-built structure, three storeys high, built in 1809. The majority of the houses date to between fifty and ninety years later. The few recent houses in the street are either infill or replace ones destroyed by bomb damage in the Second World War: the road climbs a hill beside which the railway line connecting Avonmouth and the Docks with central Bristol was built in 1873.

On Cromwell Road, brick-built twentieth-century houses are mostly in Flemish Bond. On an adjacent street, Belvoir Road, several of the houses were constructed in English Bond. These houses are three and four storeys high.

Numbers 111 and 113 Cromwell Road are a semi-detached pair of about 1870. Like contemporary structures on both sides of the road they have a stone front face. The stone is laid in courses of irregular heights. Many of the houses also have side walls of stone, but on some the side walls are rendered. However, the pair numbered 111 and 113 have side walls in a red brick laid in English Garden Wall Bond with three courses of stretchers to every course of headers.

These houses are not far from the St Andrew's area of north Bristol and in the vicinity of the Gloucestershire County Cricket Ground at Ashley Down. Here W.G. Grace played in his later years: he retired in 1898. The district, Bristol BS7, has many examples of English Garden Wall Bond used on the side and rear walls of houses with stone frontages. The bond has been seen on individual houses, both in terraces and semi-detached pairs on Kennington Avenue, Surrey Road, Lancashire Road, Nottingham Road, Seymour Avenue, Cricklade Road, Nevil Road, and The Avenue. Street names, one will see, reflect the first-class counties against whom W.G. Grace played.

The bond is usually three rows of stretchers to a course of headers, as for example number 99 Sommerville Road, a detached house, which has both side and rear walls in English Garden Wall Bond thus. However, some houses on Seymour Avenue have five courses of stretchers between the course of headers in the English Garden Wall Bond.

English Garden Wall Bond has also been seen in use on garden walls. Using five rows of stretchers are walls at the side of number 1 Walsingham Road and number 241 Ashley Down Road.

Using English Garden Wall Bond for side and rear walls may be a local trait of Bristol builders in the late nineteenth century. The houses mentioned are broadly contemporary with St Bartholomew's church, Sommerville Road, designed by Basset Smith in 1894 (1). However, in industrial building in the city, English Garden Wall Bond has a much longer history. The well-known Granary at Welsh Back of 1869 by Archibald Ponton and W.V. Gough (2) is constructed in English Garden Wall Bond.

A postscript may note the use of English Garden Wall Bond for housing on the other side of England. Numbers 2 and 4 Magdalen Way, Gorleston-on-Sea, were built in 1886: datestone in south gable. The semi-detached pair of cottages were built for labourers on Magdalen College, Oxford's estate and are adjacent to the farm drive. The eighteenth-century farmhouse is now the Shrublands Community Centre. Number 4 Magdalen Way is the Senior Tutorial Centre of Norfolk County Council's Education Service in Great Yarmouth. The English Garden Wall Bond is three rows of stretchers to one row of headers (3).

## NOTES

1. N. Pevsner, The Buildings of England: North Somerset and Bristol, Harmondsworth: Penguin Books, 1958,
2. R.W. Brunskill, Brick Building in Britain, London: Gollancz, 1990, pl. 163 - a photograph which shows the bond. J. Orbach, Blue Guide Victorian Architecture in Britain, London: A. & C. Black, 1987, 30 with pl - good photograph for design of the building. Pevsner, 1958  
R. Dixon and S. Muthesius, Victorian Architecture, London: Thames and Hudson, 1978, 264 in the Dictionary of Architects gives 1871 as the date of the building; other sources give 1869.
3. Note completed 14 May 1992; fieldwork done in Bristol in Spring and Summer 1991 and in Gorleston-on-Sea in January 1992.

## BRICK FOR A DAY

## PRELIMINARY NOTE

In the past sixteen months the society has held a number of events. The reports collected here record a visit to Reading on 31 August 1991, the two day visit to Hampshire in May 1992, the Annual General Meeting at Beverley and the subsequent visit to Hull on 13 June 1992, and the day at Aldeburgh and Snape on 19 September 1992.

## READING - 31 August 1992

British Rail's shiny, new concourse and bright summer sunshine set a convivial mood for the thirty members and guests who met David Kennett for the Reading walkabout.

The morning itinerary began at the station. The newly cleaned and modernised Reading General Station was built in 1865-7 of buff bricks from Coalbrookdale. Pevsner calls it 'a nice Italianate job of yellow brick with pedimented windows and a cupola' and indeed it is. However, he gets the date wrong, giving that of the 1840 Brunel station which previously occupied the site (fig. 1). From there the party moved off to Reading Abbey, founded in 1121 but only surviving as a ruin of rubble stonework with a remnant of a brick stair turret of 1486. Adjacent to the Abbey is Reading Goal with its forbidding walls of brickwork in English bond. Originally castellated, the wall is now topped with a climber-resistant capping.

The remainder of the morning saw the party at Huntley and Palmers' offices, a decorative Victorian commercial design in red brick with ornamental bands of blue and white bricks; the Wesley Methodist Church of 1872, of red brick with window arches and an octagonal spire of white brick; Victorian working class houses exploiting decorative brickwork in a manner characteristic of the town; and Reading School, by Alfred Waterhouse, a fine High Victorian design of 1865-71, in red brick with polychromatic work in later additions.

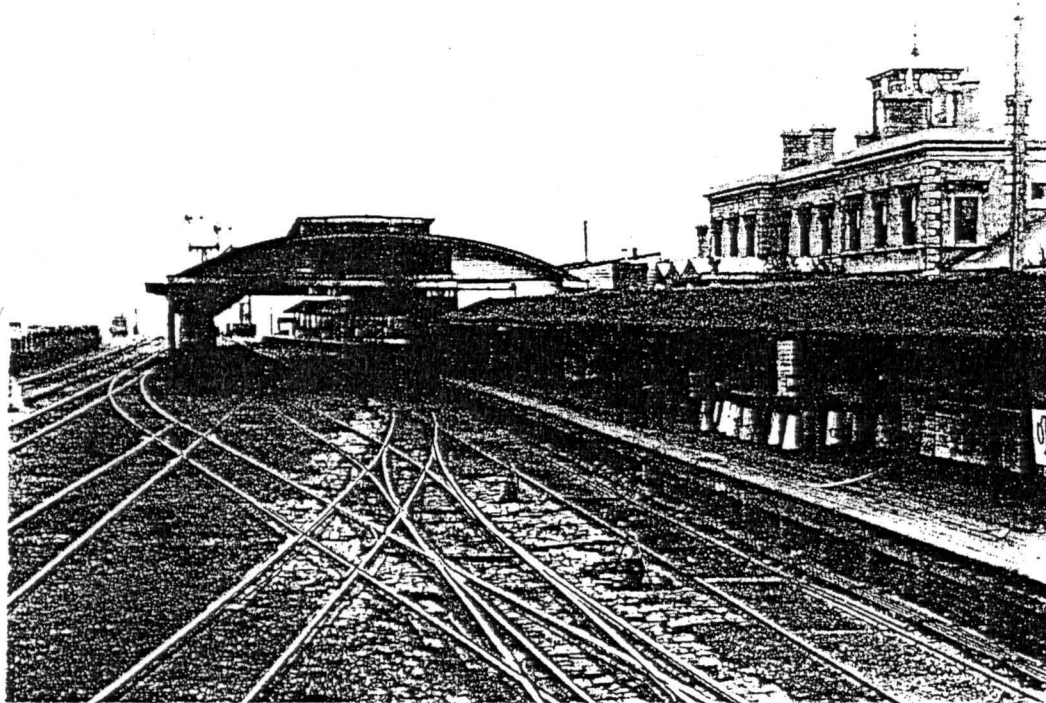


Fig. 1 Brunel's original station at Reading, with a single long platform. The long platform, rebuilt in brick and asphalt, is still there. The office block has been rebuilt, but the style of that of 1865-7 is remarkably similar to Brunel's original building.

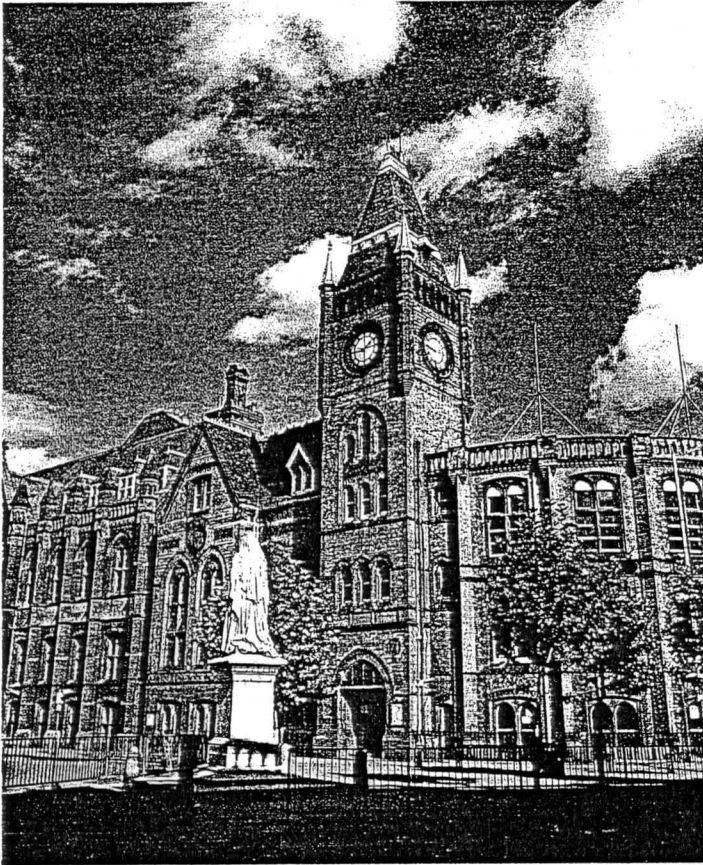
Back in the centre of the town we saw the new Central Library (1985) of handmade red stocks with yellow/grey stocks in strings and arches. A well designed and built modern building, albeit with a rather awkward curved pediment feature at roof level.

The afternoon included a visit to the pretty group of Sir Thomas Vachel Almshouses and the Swansea Road Board School, of 1898 with lavish terracotta decoration. The main building is red brick.

As the bustling shoppers ebbed from the centre our party moved in to see some of the quirky late Victorian work of the local architect and county surveyor Joseph Morris. From the top of the Butts' multi-storey car park we were able to view the McIlroy building and were intrigued to compare the surviving facade with early photographs of the building. Many decorative features have been removed; but there are still some eye-catching effects and the use of contrasting colours of brickwork, generally glazed, is entertaining. The building has lost oriels, balconies and arched openings.

A view of Alfred Waterhouse's Town Hall concluded our day. High Victorian Gothic in style and built in 1872-5, it has recently been carefully restored and refurbished. Many new bricks have been specially made to match the grey bricks so characteristic of the town and large numbers of specially-shaped red stocks have been used in arches and decorative features. The fine terracotta plaque which incorporates the borough arms was made by Hathenware Ceramics, the company who welcomed our society to their works for a visit when we held our 1988 A.G.M. in Leicestershire.

Fig. 2 Reading Town Hall



Here our day ended with thanks to David Kennett for his thoughtful planning and excellent guidance.

MICHAEL HAMMETT

HAMPSHIRE - 16 and 17 May 1992

Two days were spent by members and friends in Hampshire; each day had a different focus and accounts of these are by separate individuals.

MICHELMERSH BRICKWORKS - 16 May 1992

Thirty-seven members and guests boarded the coach at Parkway Station, Southampton. We were provided by the weekend's organiser, Kathleen Clarke, with a sheaf of information sheets and brochures. Our journey through the pleasant Hampshire countryside was accompanied by a useful commentary from Stan Roberts, who was to guide us round Southampton.

Michelmersh Brickworks is on the edge of a small village. The area has a history of clay ware from the time of the Roman occupation and a twelfth-century charter for brickmaking has been discovered. Local clay is Reading Beds clay from the Eocene (50 million years ago) and bricks have been made from it on this site for at least 150 years. Members were able to look at interesting aerial photographs showing the development of the brickworks. The Company is proud to be the largest producer of traditional handmade bricks in the country and also boasts a National Productivity Award for increased production and a reduction of fuel oil consumption.



First we were taken outside to see the piles of weathered clay, two distinct colours, buff and brown; the Company owns enough land to supply clay for the next fifty years. The clay has a tendency to twist in firing unless sand is added. This used to be done outside with a tractor and scoop, but since 1983 an Italian Clay Preparation Plant has been used to mix, crush, and sift a constant mixture of 70% clay, 25% sand, and 5% anthracite breeze which is then pelleted, mixed with water and pugged to provide a consistent mixture for the twenty-six hand makers who between them produce about 25,000 bricks per week. A Dutch machine makes about 3,000 bricks per hour of the same colour, but different texture, to keep the kilns at optimum output.

Since it was a Saturday, the place was fairly quiet but we saw one of a large pair of crushing rollers having the surface re-ground, a necessary job every six months. Two of the makers had come in specially to demonstrate the art of hand making bricks. Several intrepid visitors responded to the invitation to have a go, and no doubt many a family photo album in the future will puzzle generations to come, 'Daddy, what's Granny doing here?' 'She's making a brick, dear.' 'Oh, I didn't know Granny was a brick maker; did Granpa make them too?' It was great fun and we duly put our individual marks on our bricks. Mike Hammett, kind soul that he is, collected the fired bricks and brought them to the A.G.M.

We were shown the new computerised dry cool plant which extracts the average 2 lb content of water from a newly moulded brick in  $3\frac{1}{2}$  days instead of the 6 days which the traditional drying chambers take, using the heat from the cooling beehive kilns. There are two of these traditional circular downdraught kilns still in use, but instead of being coal-fired and stood in the open as we saw them in old photographs, they are now incorporated under the roof of the main works and are fired by oil. Each kiln holds approximately 35,000 bricks and the firing cycle takes about eight days, producing bricks of a purple-brown brindle colour at the heart of the kiln which reaches  $1100^{\circ}\text{C}$  and a range of colours to a light orange on the outer edge.

In an attempt to speed up the firing process the Company looked into the possibility of a modern ceramic fibre insulated kiln. Such a kiln was visited in southern Ireland and its economy of heat loss and greater fuel efficiency made it worthwhile for the Michelmersh staff to put their heads together to design the first and only moving-hood downdraught kiln in the country. It is a large rectangular structure with ceramic fibre insulated walls just 8 in. thick. Green bricks are stacked ready for firing between the rails on which the hood stands; the hood is then wheeled over them, carrying with it the residual heat (some  $450^{\circ}\text{C}$ ) from its previous firing; the bricks are sealed in and the 22 hour firing begins. Light gas oil is used in order to match the conditions and therefore the resulting colour of the bricks with the traditional kiln firing. Working over three bases and firing 45,000 bricks at a time, this kiln can fire three batches per week. It justly won the Company their National Productivity Award.

PENNY BERRY

#### BURLEDON BRICKWORKS - 16 May 1992

After lunch, and the option of seeing the newly-restored Burlesdon windmill, we visited the former Burlesdon Brickworks, where we were met by Diane Walker, Education Officer for the site.

Founded in 1897, the brickworks was taken over by Redland Ltd in 1959 and worked until 1974 when the declining quality of the clay and the building of the M27 motorway virtually across the works closed it.

Large-scale destruction has made it impossible to assess what proportion of the old city was built of brick; there is no indication from what remains that brick was used early or extensively in pre-Industrial Southampton.

Most of the brick buildings we saw were Victorian or Edwardian. An exception is the house of Walter Taylor, abutting the Westgate on the inside, raised in Header bond, c.1740. On the High Street, the former Post Office combines brick with terracotta Blanchard dressings in a design reminiscent of the Flemish Renaissance, with scallop-bearing tympana rising above the cornice. Blanchards, whose works were at Bishop's Waltham, produced the terracotta used in London at the Natural History Museum and the Prudential Assurance Offices. Next door to the Post Office, at no 56 High Street and marked O W, is another building of Netherlandish character, faced from top to bottom in whitish faience.

The Harbour Board Offices are an exuberant domed example of Edwardian baroque, combining brick with Portland stone; in the Geddes warehouse of 1866, the contrast of red and white is achieved solely in brick.

The 1920s Central Hall, formerly the Methodist Central Hall, is a seemingly smaller version in brick and white terracotta of the building of the same name in Westminster.

Two suburban churches claimed our attention: the United Reformed Church in The Avenue, an exercise in red-brick perpendicular, and the neo-Byzantine Roman Catholic church of Saint Boniface in Shirley Road, dated to 1927. In this building the architect, W.C. Mangan, achieved remarkable effects with standard bricks, plain tiles and Roman tiles with virtually no use of specially moulded wares, and no use of stone other than for the marble column-shafts and stone capitals of the entrance portico.

White brick buildings include the premises of the Ordnance Survey, dignified by their excellent proportions and minimal classicism. In other white-brick buildings a desire for extreme austerity led to heaviness in design, as in the Union-Castle House (formerly the Custom House) and the Wiltshire and Dorset Bank, both in Canute Road. In the general area of the Eastern Docks are the white-brick building which was the offices of Wainwright Brothers and the premises of the Queen's Hotel and Royal Albert Hotel. Nos 36-37 High Street, now occupied by the Woolwich Building Society, but built as a bank, is an Italianate composition with arched window- and door-heads.

Two churches differ from other white-brick buildings we saw; they are 'gothic'. They are the Roman Catholic church of Saint Joseph in Bugle Street and the Presbyterian or 'Scotch' church in Brunswick Place. Also in Brunswick Place was a white-brick terrace of c.1840 with large bow windows on the first floor. More mid-nineteenth-century white-brick development along the eastern side of The Avenue was a long series of detached villas. On the way out of town we saw the white-brick stables of North Stoneham Park, all that survives from a house by Thomas Hopper of 1818. Nearby, and somewhat earlier in date, is North Stoneham Old Rectory, also in white brick.

In the extended itinerary we saw a contemporary version of white brick employed in the recently-erected Royal Courts of Justice, but this brick, smooth and evenly cream in colour, is decidedly flat and lifeless compared with the brick used in the Ordnance Survey buildings, which have been cleaned recently.

Two buildings in stucco were noticed. The eighteenth-century Lodge in Portswood Road is a fanciful gothic pavilion much after the manner of William Halfpenny. Also on the northern periphery is Carlton Crescent, a monument to speculative development of the 1820s for the middle classes.

The Hampshire Buildings Preservation Trust have acquired the main complex of derelict buildings on the southern side of the motorway and have secured advantageous support from Redland for their ambitious and laudable plans to restore the brickworks and create a museum and information centre for the conservation of the built environment. Diane Walker pointed the vast buildings which will house the future flight control centre for the Civil Aviation Authority on the far side of the motorway. After showing us the restoration work already begun on the Engine House of the brickworks she introduced us to Kevin Stubbs who gave us a brief history of the works, illustrated with slides, and outlined the aims of the trust. He said that as restoration of the buildings progressed, they hoped to be able to offer a home to redundant pieces of equipment related to brickmaking and (members wondering how to ultimately dispose of large brick collections, please note) bricks, in their efforts to provide a centre for the serious study of brickmaking and building conservation. The talk was given in a former kiln which latterly had been used as an experimental drying shed. We were then free to wander through the buildings to see the raised slatted wooden floors of the drying sheds which had been heated by steam from an enormous boiler; this had been quite an innovation in its time, allowing bricks to be made all the year round and not just in summer. Sadly, itinerant scrap merchants had plundered some of the machinery before the Trust stepped in and secured the buildings. But we enjoyed poking around and identifying (or guessing) the purpose of many items still there. Eventually Kathleen Clarke had to tear us away to resume the coach ride back to Southampton Parkway via the pretty village of Botley. We felt privileged to be the first official party to visit the brickworks; many will respond to the invitation to keep in touch and make further visits to see how the work of the trust is progressing.

Those wishing to arrange a visit should contact

Diane Walker  
Education Officer  
Hampshire Buildings Preservation Trust Ltd  
Bursledon Brickworks  
Coal Park Lane  
Swanwick  
Southampton  
SO3 7DL

Tel: 0489-576248

Our thanks are due to Kathleen Clarke for her excellent planning and organisation of a very enjoyable day.

PENNY BERRY

ROMSEY - 17 May 1992

Our tour of Romsey was guided by Kathleen Clarke, to whom the society's thanks are due.

Romsey developed in the middle ages as a timber-framed town; one surviving thatched house in Mill Lane indicates what was probably the general roof cover. The town we saw was largely of brick and tiled or slated. Observed intermittently were a few buildings with exposed timbers and several more where timber-framing was suspected to lie behind brick fronts.

Most facing bricks were of an even orange-red hue; only in the twentieth century has there been a taste for multi-coloured brick in prominent positions. Flemish bond was ubiquitous in the eighteenth and nineteenth centuries; Sussex bond was commonly used in nineteenth-century outbuildings. Several examples of Header bond were observed. Header bond in some parts of England is rare and confined to



buildings of between 1730 and 1750; but in this part of Hampshire Header bond does not seem unusual and its use clearly extended into the nineteenth century, as in the Abbey Manse. Broadwater House, of c.1750, had Header bond on the front but English bond along the sides. The red-brick Header bond facade of a detached house in Mill Lane is varied with the use of blue header panels; on Portersbridge Street, nos 26, 28, and 30 are faced with red headers but dividing the length of the terrace are columns of blue headers. The use of Stretcher bond in terraced houses, nos 1-13 Portersbridge Street and in Station Road, might indicate the adoption in the late nineteenth or early twentieth century of cavity-wall construction. A kind of Monk bond is employed in the 1960s Post Office to give a diaper in stretchers.

White brick occurs infrequently. It was seen in Temple Court House of the 1790s and the attached Old Brewery House of the 1820s. A late-eighteenth-century house in Middlebridges Street, no 21 Market Place (not easily dateable), and the mid-nineteenth-century railway station are also raised in white brick. Did these bricks, as with others used at nearby Broadlands Park (?1788), come from the brickyard at Beaulieu which had the chalky clay with which to make white bricks?

Romsey contains examples of mathematical tiles. No 11 Middlebridge Street, almost certainly a timber-framed structure, has mathematical tiles fixed to the wall of the jettied upper storey. Mathematical tiles were observed also on the curved upper storeys of the National Westminster Bank, facing on to the Market Place; the building has recently been restored.

The plain-tiles used to roof part of Romsey was locally developed. But the widespread use of slate in nineteenth-century buildings is testimony to the past serviceability of water and rail transport. No 8 Portersbridge Street is clad top and sides in slate, as are some houses in the vicinity of Romsey.

Buildings which could be appreciated for their design but not constructed externally of brick include the Corn Exchange (stuccoed, 1864), with its giant order of Corinthian pilasters; the Italianate Town Hall of 1866, dressed with Bath stone; and a striking flint-faced neo-perpendicular complex by Abbey Water; and the United Reformed Church, rebuilt 1887-8 to include a dominating tower, a gateway arch and a timber-framed gable. There is a pleasing example of Victorian knapped flintwork at no 23 Middlebridge Street. Horsefair Tower, a vertical mass of brickwork relieved by recessed panels, is a dignified survivor of what had been the industrial complex of Strong's Brewery. The National School, built to the designs of William Eden Nesfield in 1872, is characteristic of his clever, ornamented but artificial vernacular; another example is Sunflower Lodge, Broadlands, seen before entering Romsey. Bold plinths, diaper in the brickwork, high-shafted chimney stacks, and contrived asymmetry are keynotes of the design. Fleurons and vase motifs by the side of doorways were here cut in stone. The 70 ft long single-storey schoolroom adjoins the cross-winged schoolmaster's house clad in fish-scale tiles and disposed under three pitched roofs, each of different heights. The building now serves as the town library. From the twentieth century, we could take note of the Plaza, with stuccoes front typical of cinema design of the Inter-War years.

ROBIN LUCAS

SOUTHAMPTON - 17 May 1992

Our guide to Southampton was Stan Roberts, to whom the society's thanks are due.

As a consequence of bombing and redevelopment, few districts within the central area could be viewed as entities; the historic buildings were standing alone.

In the suburban area north of the city, the party saw commemorative plaques in terracotta for the reign of Queen Victoria. The plaque on a house in Northlands Road bears the date 1887, for the golden jubilee, whilst two plaques in nearby Portswood Road bear the date 1897, for the diamond jubilee. We had previously seen an 1897 plaque on a house in Queen's Terrace, in Romsey. These plaques were noted in Information 51 (December 1990) 13-14, with an illustration of a diamond jubilee one.

In the same area of Southampton, much of which was developed by the estate agent William Burrough Hill, we saw some fanciful examples of terracotta. These include a dragon and fleur-de-lys roof-ridge on Hill's own house on Northlands Road.

ROBIN LUCAS

BEVERLEY AND HULL - 13 June 1992

The nineteenth Annual General Meeting of the British Brick Society was held in the Old Friary, Beverley, East Yorkshire on 13 June 1992. Immediately after the A.G.M. Ann Los took some of the members on a short tour of Beverley. Buildings seen were located between the Minster and the North Bar. These included Ann Routh's Hospital of 1749 with an addition of 1810, and her house; the oldest part of County Hall, built as a gentleman's club in the early nineteenth century, in a Greek style with giant Doric columns in antis, and a house opposite in similar form. We also saw the Guildhall, with its splendid Georgian court room, as well as houses on North Bar Within. North Bar is the only surviving gate of Beverley, built in red brick in 1409.

On a very hot summer afternoon, members went by coach to Hull where Dr David Neave, Lecturer in Regional and Local History at Hull lead a fascinating tour around the historic waterside area of the city. Close to this area was the King's Tilery established in 1303. This lead the way in the revival of brickmaking in this country.

In Hull, the old High Street runs close to the edge of the River Hull with landing stages or staithes in front of warehouses which were situated behind the merchants' houses that fronted the High Street. Most of those surviving were constructed in the seventeenth century, and pantile roofs have been dated from 1663. It is thought that by 1710 pantiles had replaced flat tiles for roofing.

In the High Street, we visited Wilberforce's House, now a museum. The Wilberforce family were merchants in Hull; they lived in a distinctive building built in the artisan style with much use of moulded and cut bricks, together with stone detailing. The warehouse area is now a courtyard and provided a brief respite for the party from pavements where pockets of tar were melting and care was much needed when walking. The tour continued with the Pease warehouse of 1745 which has been satisfactorily converted into flats, and the Queen's Dock area which was filled in during the 1930s.

At this point we were able to see a section of the original city wall which has been uncovered and left, protected by railings and steps, for public viewing. The King's Tilery and other local tileries were kept busy from 1340 to 1406 providing bricks measuring 11 in by 5½ in by 2 in for this wall, which used 4.7 million bricks in all. A nearby ice-cream store ran out of stock during the society's visit to this feature!

The tour went on to look at the old Grammar School, which began life in 1583 as the Merchant Adventurers' Hall, and is now a museum. The original facade is still in place. We passed Holy Trinity Church, which has transepts and lower tower section in brick dating to the fourteenth century. Finally the party moved to the Humber Dock, now a marina, with modern and restored buildings standing side by side.

Most members of the party went on to visit the Los collection, as televised, of over 3,000 items including bricks, tiles, pipes, glazed items, brickmaking tools and machinery. The press, complete with hanging basket, was demonstrated and discussion took place as to how to re-assemble the brickmaking machine. Ann and Peter Los very kindly provided tea and refreshments and had many items of brick-related literature available for perusal.

CHARLES THURLOW

#### THE BLYTH PANTILE WORKS - 14 June 1992

On the Sunday after the A.G.M. several members visited the Blyth Pantile Works. The Barton clay pits are on the south bank of the River Humber, close to the longest suspension bridge in the world. Members assembled in a car park close by and were in time to see a British Airways Concorde fly over the bridge. At one time the Barton area was very busy with the manufacture of bricks and tiles. Today, a nature reserve manages many worked out pits as a site for wildlife and angling. Our guide for this visit was Miles Hooper, whose knowledge and enthusiasm made the tour very worthwhile and most enjoyable.

The Blyth pantile works have survived and remain in business making pantiles as replacements or for new buildings when traditional shapes are required. Until relatively recently the clay was dug by hand but the ubiquitous J.C.B. has now taken over this work, loading the clay on to a light railway for the short journey to the works. Here the clay is hauled up a ramp in traditional style to the upper floor of a making house where it is milled with lime and then pugged into clots which are wire-cut. The clots are taken to a 'stupid', a portable machine in the drying sheds where they are extruded into pantiles, lifted off with a tool known as a tile horse and placed on to drying racks. The pantiles spend from ten days to three weeks in the sheds before firing. The pantiles are fired in rectangular, downdraught kilns of local design and manufacture. Apparently one of the older workers had a simple method of establishing the correct firing temperature when he could just get a finger into one of the expansion cracks in the wall of the kiln! After firing the pantiles are shrink wrapped on to pallets for the market.

The weekend concluded with some members motoring to Grimsby for lunch on the Lincoln Castle, a former Humber paddle steamer, and a visit to the nearby Fisheries Heritage Centre.

CHARLES THURLOW

#### EAST SUFFOLK - 19 September 1992

David H. Kennett led a full day's outing through Suffolk. A party of twenty-four members and guests assembled at Stowmarket Railway Station on a rather grey day when the county was still recovering from a severe thunderstorm of the previous day. On cue, as the coach left, the sunshine broke through to show the gentle Suffolk landscape, with its first hint of autumn colours, to its full advantage.

Prior to leaving the station we examined the exterior of the building (fig. 3). Stowmarket Railway Station is one of three of similar best Elizabethan style stations built by the Bury and Ipswich Railway in 1849 to the designs of an Ipswich architect, Frederick J. Barnes. Much of the brickwork is in a soft red brick, with detail and diaper in Woolpit whites.

Moving through Suffolk, Saxstead Green windmill was the first stop, to allow the photographers to record this well-preserved post mill. Then it was on to the coast and Aldeburgh. Proceeding down an unmade track to the River Alde, Aldeburgh Brickworks was then reached. Everyone was pleased to find that this part of Suffolk had escaped the torrential rain and that it was quite dry underfoot.

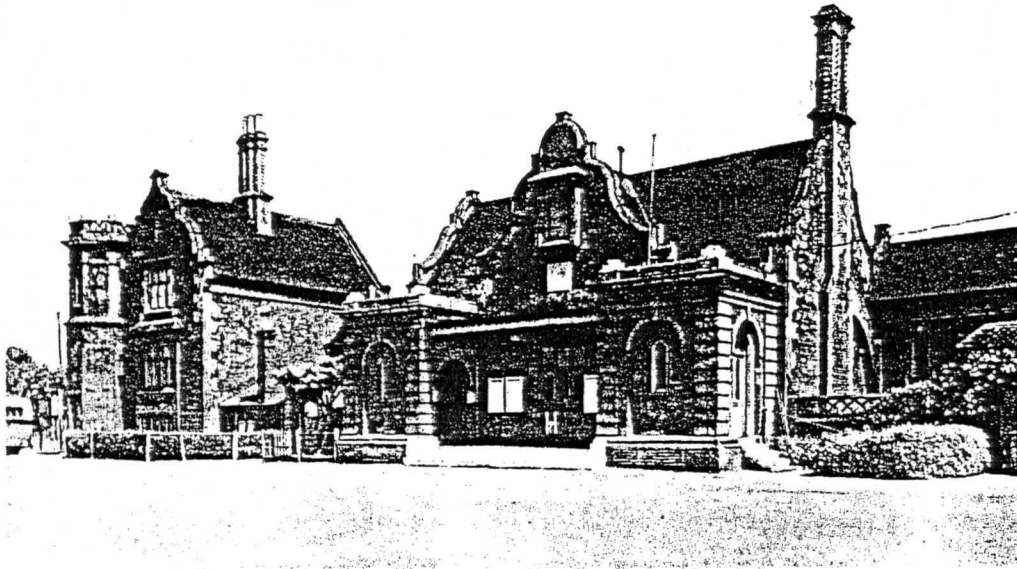


Fig. 3 Stowmarket Railway Station  
Built for the Bury and Ipswich Railway in 1849, Frederick J. Barnes,  
architect. Red brick with yellow brick details.

Mr Trevor Hughes, the works manager, then shew his wealth of knowledge of the site and its brickmaking processes to the group. Brickmaking was recorded here as long ago as 1624. The present owners, Reades of Aldeburgh, acquired the site in 1926 when thirty men were employed in seasonal work. Today, a five man gang makes about five thousand bricks a day, resulting in an annual output of one million bricks. The four oil-fired Scotch kilns have a capacity of 35,000 bricks each and require eight days to load one kiln.

As the tour of the works proceeded, some further interesting facts emerged. The clay is now won from the defunct brickworks at Chillesford, two miles across the wide River Alde, and it required the use of wooden moulds only. The term 'bathing' (believed to be the correct spelling) was a new one to the group. These were once wooden frames, infilled with reeds from the adjacent river bank. They were used as a protection from the sun and the wind to the sides of the green bricks drying in the hakes. Mr Hughes could not provide the spelling used for these frames, which perhaps shows the strength of knowledge and skills in brickmaking, which is still passed on by oral tradition over the years.

The interest resulting from the brickworks visit necessitated a delayed lunch break, which was taken on Aldeburgh seafront. Refreshed the group inspected the most northerly of the martello towers; the only one with a quatrefoil plan. A bonus was the opportunity to view the interior of the tower, now owned by the Landmark Trust. This was through the good offices of Mr Hughes, who arrived with his wife to admit us; Mrs Hughes is the warden of the tower.

The timber-framed Aldeburgh Moot Hall with its brick nogging was the final call in the town before the coach left for Snape Maltings. These extensive brick buildings held an equal attraction with the tea rooms contained therein. On the journey back to Stowmarket, the fine Shire Hall at Woodbridge was viewed from the coach.

Preliminary notice was given of the next British Brick Society outing, to Luton and Ampthill, for everyone to look forward to next year. It was unfortunate that after a most enjoyable day in Suffolk, our leader was to just miss his train on our return to the railway station.

ROGER B. KENNELL



## BOOK NOTICE

Allen G. Noble, Wood, Brick, and Stone  
The North American Settlement Landscape Volume 1: Houses  
 Amherst MA: The University of Massachusetts Press, 1984  
 vi + 160 pp., 277 illustrations  
 ISBN 0-87023-410-2 no price stated.

This book appears to be little known: this reviewer was the first to request it from British Library Document Supply Centre, Boston Spa, despite accession there on 14 August 1984. A scan of my shelves reveals no review or notice elsewhere. Professor of Geography in the University of Akron, Ohio, the author's new role as editor of a forthcoming book entitled To Build in a New Land Ethnic Landscapes in North America, (Baltimore MD: The Johns Hopkins University Press, 1992) drew attention to Wood, Brick, and Stone.

The approach is geographical; the introduction considers 'Settlement Landscapes and Cultural Hearths'. Five chapters in Part Two 'Evolution of Colonial Houses in Northeastern Hearths' consider 'French Colonial Houses in the St. Lawrence Valley Hearth', 'English Colonial Houses in the New England Hearth', 'Dutch Colonial Houses in the Hudson Valley Hearth', 'Colonial Houses in the Delaware Valley Hearth', and 'English Colonial Houses in the Chesapeake Bay Hearth'. Part Three on 'Environment and House Evolution' has three chapters: 'Houses of the English and Spanish in the Humid Subtropics', 'Early Dwellings in Western Environments', and 'French Houses in the Warm, Humid Mississippi Valley'. The final part, 'Evolution of Later Houses', considers 'The Diffusion and Modification' of Eastern Houses' and 'Style and Fashion: The Sequence of Nineteenth-Century Houses'. There are nine pages of notes, much of it to items new to this reviewer. Illustrations are copious: plans, sketches, maps, photographs, diagrams of building techniques, and diagrams of the evolution of house plans. These are numbered sequentially for each chapter.

Members of the British Brick Society will find much to excite them. The Albany brick cottage in the Hudson Valley is also known in stone and wood but with the same floor plan. Brick kilns were operating in New Amsterdam in 1628 and in Albany in 1630. The earliest plan I know of the Imperial City, dating to 1666, shows brick houses prominently on Broad Street and elsewhere within The Wall, then a timber stockade. Styles were different in the Delaware Valley: timber-framing with brick nogging in North Carolina and the Quaker-plan house in Pennsylvania. The Chesapeake Bay has hall-and-parlor houses and the I-type house which owes its origins to the late- and post-medieval three-cell, central-entry house. Many were built of brick.

Evolution produced Southern tidewater hearth houses, of which the Charleston single house is one type. There are many in brick; I presume post-dating the 1738 earthquake, although Noble offers no firm dating.

In the west, there is the Indian adobe pueblo. The Indians used wet mud in a technique called puddled adobe; the Spanish-Mexican technique involved rough bricks formed in a wood frame and well-dried before being made into a wall. The last-named is illustrated by a photograph of a wall being built.

The luxury of another land is given to few architectural (and other) historians. America, before Yorktown, provides the cultural comparisons, emphasising the diverse origins of the English settlers as they grew away from their roots. It is this, amongst other things, which make Noble's book so important for those who have remained in the country of origin.

David H. Kennett

# THE BRITISH BRICK SOCIETY:

## PROGRAMME FOR 1993

### THE BRITISH BRICK SOCIETY

In 1993, the society plans to hold two outings and its Annual General Meeting. With this issue of Information, notice is enclosed of the Spring Outing to Luton and Ampthill. Luton has a wealth of 1930s brick buildings, some of high quality. We shall look at four: Luton Railway Station, by W.W. Hamlyn, in 1937 for the London Midland and Scottish Railway is one of the few mainline stations built in Britain in the 1930s. Two distinctive churches form the next visits: St Christopher's church, Round Green, was designed by A.A. Richardson in 1936; St Andrew's church, Blenheim Crescent, is by Sir G.G. Scott in 1931-32 (see Information 38, February 1986). The final visit in Luton will be the boys' grammar school, now occupied by Luton VI Form College. Designed by J. Turok of Marshall and Tweedy, in 1937; the building was opened on 15 September 1938. A more varied range of buildings will be viewed in Ampthill. North of the town is Houghton House, built in 1615-30, for Mary Sidney, Countess of Pembroke, this large house (55 hearths in 1671) has a three-storey porch of 1630, and two loggias, one of the late seventeenth century, the other of the mid eighteenth century. Demolition began in 1790. Ampthill Park was built in 1694 to 1706, and redone in 1769-1771. Architects consulted include Sir Christopher Wren (possibly), William Wynne and Chambers. The visit will include a walk along Church Street, which has eighteenth-century fronts to earlier buildings. Avenue House was the home of Sir Albert Richardson; it was built for John Morris, a brewer, in 1792-95 by Henry Holland. Dynevor House is 1725. This visit has been arranged for Saturday 3 April 1993.

The society's Annual General Meeting is to be held at Waltham Abbey on Saturday 12 June 1993. The afternoon will include a coach trip to see local brick buildings. Of the fifteenth century are Rye House and Nether Hall, Roydon. Other buildings will be included.

It is hoped to hold an Autumn Outing to Eton College; arrangements for this are proceeding.

In 1994, it is hoped to hold an outing to Norwich; the society's Annual General Meeting is to be held in the Bristol/Bridgwater area. Support for a coach outing to see brick barns and churches in central Staffordshire is being canvassed; Spring 1995 is the potential date of this.

### OTHER ORGANISATIONS

From time to time the society is informed of events about bricks being held by other bodies.

On Saturday 27 February 1993, The University of Reading Department of Extended Education is holding a day school at the University Centre, London Road, Reading, on 'Ornamental brick: early and late'. Emphasis is on medieval and Victorian and the links between them; the day will include a walk to look at examples. Our member, Miss Jane Wight is the tutor. The day begins at 09.30 a.m. and will end at 5.30 p.m.; the fee is £9-00. For further details contact

Extra Mural Office, The University of Reading, London Road, Reading  
RG1 5AQ  
Telephone 0734-318347

On Saturday 24 April 1993, the University of Sussex at Brighton, Centre for Continuing Education, is holding a day school on 'Bricks & Tiles in Sussex', at Singleton Open Air Museum (was Weald & Downland), Singleton, near Chichester. Our member Molly Beswick is the tutor. The day begins at 10.00 a.m. and continues to 5.00 p.m. Full fee is £15-00, reduced fee £10-00, minimum fee £4-00. For further details contact

Yvonne Barnes, CCE, Education Development Building, University of Sussex,  
Brighton BN1 9RG  
Telephone 0273-678527

The British Archaeological Association is holding its next annual conference in the splendid Dutch brick city of Utrecht from Friday 23 July to Wednesday 28 July 1993. Preliminary details should be available later this year; any member of the British Brick Society who would like to receive them should send a stamped addressed envelope (marked BBS) to the conference secretary

Miss Ann Hilder, 7 The Shrubbery, Upminster, Essex RM14 3AH

The British Brick Society welcomes further notice of events about bricks and brick buildings to circulate to its members.

## BRICK QUERIES COLUMN

### THE BRICK QUERY

From time to time the editor, who is also the society's enquiries secretary, receives enquiries, and replies to points. Some of the recent ones are included here: one merely to note, through pressure of space, the postponement of a full reply. It will be included in Information 58 (March 1993).

#### JOHN CLEGG OF CASTLEFORD, 1827-1910

John Clegg was born in Castleford. With his elder brother, Thomas, he is listed as a potter in the 1841 and 1851 census returns. In 1853/54 John and Thomas are noted as earthenware manufacturers with their cousin James Wilson. In 1857, John married Ellen Pratt at Leeds: her occupation is given as 'Pottee'. John and Thomas were potters, then at Mount Pleasant Pottery, manufacturing blue and white ware.

In 1866 and 1869, John and Thomas are referred to as 'Brickmakers'. They later had a malt kiln in Aketon Road, Castleford. It is not known if the brickworks was near it. Subsequently they are more often termed 'Master Maltsters' than brickmakers.

John Clegg lived at Carlton House, Carlton Street, Castleford, and died there. The family business seems to have faded out c.1900: John had no sons and Thomas's son appears to have left the area.

At one time the Clegg brickworks was quite prosperous, employing several workers. If anyone has any details of the business, or can tell me where these might be obtained, please contact the enquirer. In particular photographs, bills, bill-heads, advertisements from the business or the names and/or addresses of buildings made with Clegg bricks.

Mrs A. Butler  
11 Morton Peto Close  
Somerleyton  
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#### BRICKMAKING TERMINOLOGY

Has anyone done any research on the etymology of brickmaking terms, I wonder ? I have been a member of BBS for many years and cannot remember seeing an item.

The reason I ask is that last Monday I was doing my biennial evening-class piece on the local industry, listed as usual (in distributed notes) a concise glossary of brickmaking terms, and hazarded the guess that some at least derived from 'Dutch' (meaning the language that was spoken throughout the Netherlands say about 400 years ago).

I am also interested, I am afraid in a rather dilettante way, in the Netherlandish influence on English vernacular architecture, so perhaps I am prejudiced! However, here is a list of the terms which I suggested might be derived from Dutch:

bat	Du beet = bit
blade	Du blad = sheet, plate
brick	O Du bricke = brick (attested, I think)
burr	? by metaphor from Du boer = farmer
clamp	Du klamp = clamp (cf Eng clump)
clot	Du kluit = clod
crowd	Du kruien = to wheel in a barrow
hack	Du heg = hedge, fence, railings
kick	Du kikker = frog (!)
skintle	Du schuinte = slope

To this last night a course-member added:

lute (= strike)	Du loet = lute
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Maybe I am actually the last person to have made this 'discovery' and the derivations are well attested ? I would be interested to know.

Arthur Perceval MBE BA BLitt FSA  
Fleur de Lis Heritage Centre  
Preston Street  
Faversham  
Kent  
ME13 8NS

#### A BRICK CLUE TO AN ASSOCIATION FOOTBALL TEAM

The relationship between the claypit at West Bromwich, the Albion Brickworks, and the well-known association football team is complex. Michael Oliver has supplied notes on this to Penny Berry and the editor; these will be the basis of a reply in Information 58 (March 1993)



## THE BRICKLAYERS' MESSAGE

Associated with various trades in construction or other manufacturing or creative industries is a curious tradition with which some readers may be acquainted. Bricklayers, for example, occasionally leave a "message" in the cavity of a wall, similar to the "foundation deposits" which often accompanied the laying of a cornerstone in 19th century buildings. Both the message and the container used for it differ widely from one instance to another; sometimes the person responsible simply writes his name and address on a piece of paper and sticks it into wet mortar. Others, more ambitious, give their life histories, details of the job in hand, the price of beer, add coins and a newspaper and leave it all in a sealed bottle.

Part of the appeal of such behaviour has to do with continuing what is imagined to be (and may actually be) an old tradition; bricklayers and others from time to time discover similar "messages" left by previous generations practising the same trade, and it is common for these messages to be redeposited, perhaps with an added note, for future finders. Another incentive is the fun of secrecy and the uncertainty about who the finder will be. Sometimes, this is the only safe way you can say what you really think of the foreman or the skinflint who pays your wages. What counts here is less the idea that someone will find what you have written or deposited than that it's good to have got it off your chest.

And then, there's the question of skill and commitment to work done well. "Time capsules" in one sense are a kind of "signature"; even if the wall you made is someone else's property and you may never see it again, you have nevertheless put something of yourself into it; you are no longer anonymous, or simply a "pair of hands".

This behaviour is therefore variously traditional, communicative or friendly, and a form of self-expression. Interestingly, there are even examples in newer industries such as film animation and computing.

I am carrying out research in this field for a book and would be pleased to hear from anyone, whether in the brick-using industry or otherwise, who knows about this kind of activity from their own or other people's experience.

Brian Durrans  
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The Museum of Mankind  
6 Burlington Gardens  
London W1X 2EX