BRITISH BRICK SOCIETY

ISSN 0960-7870

INFORMATION 101

JULY 2006



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Christ Church, Luton: the (liturgical) west end: photograph, c.1908, by T.G. Hobbs: centre: west end of nave (Henry Elliot, 1856–7); right: tower (George Halton, 1863–4); left: west end of rebuilt north aisle (J.R. Brown & Son, 1903–4). Of these parts of the church, only the tower – with its spire rebuilt – is extant. See the article 'Christ Church, Luton and Pressure Marks in its Nineteenth-Century Bricks' in this issue, pp.24–9.

EDITORIAL: CHAIR-DAYS

I will arise and go now.... *W.B. Yeats*

Once again our regular editor, David Kennett, has allowed me to edit an issue of *Information*, thus providing me with a welcome opportunity to reflect, briefly, on my period as Chairman of the British Brick Society, which came to an end at our AGM in June of this year. It had been my wish for some time to relinquish the position, not because the duties have been arduous, but rather because it is better for the Society itself, so I believe, to have a change after a period of years – *twenty* of them, in fact, since I was first elected as Chairman in 1986. In *Henry VI Part 2*, one reflects ruefully, Shakespeare refers to *old age* as 'chair-days'!

During the course of 2005 Michael Hammett and myself were able to persuade James Campbell to stand for the position. At first he was a little hesitant, on the grounds of his relative youth – until Mike and I insisted that neither of us have *always* been as mature in years as we are now! In June 2006 James was duly elected as our new Chairman. Apart from being significantly younger than my sexagenarian self, he is well suited to the position. A Fellow of Queens' College, Cambridge, he is not only a qualified architect but also an accomplished architectural historian. Amongst much else, he has contributed papers on the history of brick to various publications, including *The Archaeological Journal, BBS Information, Construction History*, and *Construction History Newsletter*. He will also be known to BBS members as the author of the comprehensive *Brick: a World History*, lavishly illustrated with photographs by Will Pryce and published by Thames & Hudson in 2003. It is a great pleasure, on behalf of our members, to welcome James as our Chairman and to wish him well for his future in office. On a personal note, I should like to say, with Francisco at the opening of *Hamlet*: 'For this relief much thanks'!

'Have you had quiet guard?' asks Barnardo in response. Well, by and large *I* have, thanks to a series of efficient officers who have done all the *real* work of the Society. Amongst my own pleasant duties have been others of a more sombre character: writing, or contributing to, obituaries or appreciations of deceased members, including those of the three persons most responsible, initially, for our existence as a flourishing society: Lawrence Harley, Geoffrey Hines, and, most recently, Ron Firman; it had been a privilege, as a twenty-something research student, to act as acolyte to these three. Also to be named, because they served as officers of the Society and contributed to these pages, are Nicholas Moore and Martin Hammond, both, sadly, taken from us long before we might have expected.

But all were too full of enthusiasm for our shared interest to want me to end on a melancholy note. And so I finish by remembering their love of the subject and that of all members of the British Brick Society. As John Mason Neale, a founder of the Cambridge Camden Society, wrote in his Report of 1840, 'it is in the labours of our true-hearted members ... that our designs are to be efficaciously carried on'. If I have managed, at least in some small measure, to foster that interest, then my two decades as Chairman will not have been entirely wasted. To *all* our members I should like to say, with Mr Wilfer in *Our Mutual Friend*: 'for the confidence you have placed in me ... I do most heartily thank you'.

As always when I occupy the editor's chair, this issue contains much from my own pen – with the usual (but *genuine*) excuse that this saves our regular editor a good deal of retyping: my thanks, as ever, go to David Kennett for the opportunity and to those other contributors who have provided at least *some* balance to this issue.

TERENCE PAUL SMITH Guest Editor

A DEMOLISHED EDWARDIAN SCHOOL BUILDING AT DAME ALICE OWEN'S SCHOOL, CLERKENWELL, LONDON: Its Bricks and Brickwork and its Schoolboy Graffiti

Terence Paul Smith with Andrew Westman and Robert Cowie

Introduction

In 2003 the Museum of London Archaeology Service (MoLAS) was commissioned by the architects Andrews Sherlock & Partners, on behalf of the Dame Alice Owen Foundation, to record a group of buildings at 392 St John Street, Clerkenwell (now within the enlarged Borough of Islington), London EC1 in advance of redevelopment of the site. The work was carried out with assistance from Museum of London Specialist Services (MoLSS) and a full archive report has been prepared.¹ The present contribution, after sketching the background history, considers the bricks and brickwork of the principal building recorded, which was of Edwardian date, and draws attention to some uncommon schoolboy graffiti observed in the external brickwork.

Dame Alice Owen's School

The group of buildings recorded, with others (then no longer extant) to the north of Owen Street (fig. 1), formed part of Dame Alice Owen's School (more succinctly, Owen's School), founded in 1610 by Dame Alice Owen, *née* Wilkes (1547–1613), on land bought by her for charitable purposes in 1608.² Alice's first husband, Henry Robinson, was a brewer, a significant fact in the history of the school and in connexion with some of the graffiti. He died in 1585, and Alice was subsequently married to William Elkin, a mercer, and, after his death in 1593, to Sir Thomas Owen, a noted justice of the Court of Common Pleas, who died in 1598 and whose tomb, with its fine alabaster effigy, is in the south choir aisle of Westminster Abbey. By Dame Alice's will of 10 June 1613 the estate was devised to the Brewers' Company of the City of London, who to this day act as trustees of the (relocated) school.³

The purpose of the school, as stated in a Letter Patent of 12 June 1610, was to teach 'the sons and daughters of the poor' of the area 'to read, write, cast accompts [computare], and [to] sing the Psalms now usually sung in the English Church' - that is, according to The Book of Common Prayer with its most recent (1604) revisions; the school, with a planned associated chapel, was to be known as 'The Free Chapel and School of Alice Owen, of London, widow of Thomas Owen in Islington, for the Instruction of Children [pueris]...⁴ The proposed curriculum as set out in the document and the projected co-educational nature of the school suggest that it was intended as an elementary (or 'English') rather than as a grammar (or 'Latin') school.⁵ As early as 1788, however, a stone tablet placed over the gateway to the adjacent almshouses referred to the school as 'the FREE GRAMMAR SCHOOL adjoining'.⁶ Moreover, despite the reference to 'sons and daughters' and the rendering of pueris as 'of Children', when the school opened in 1613 it was for boys only: twenty-four from Islington and six from Clerkenwell. It may, therefore, have functioned as a grammar school from the start, despite the implications of the foundation document. It remained an exclusively boys school down to the 1970s, although a sister institution, the Dame Alice Owen Girls School, was founded in 1886, with its own buildings nearby. The boys school continued as a 'secondary' - that is, in effect, a grammar - school in the nineteenth and into the mid-twentieth century. In 1946 it became a Voluntary Aided grammar school. Over the period 1972-6 the boys and girls schools amalgamated and moved to new premises in Dugdale Hill Lane,

Potters Bar, Herts. It is now a Voluntary Aided mixed secondary day school.



Fig. 1. The Owen's School site in the mid-twentieth century: the principal building recorded by MoLAS is shown in black; other Owen's School buildings are stippled; that to the east of the principal building was also recorded; the buildings north of Owen Street had been demolished by the time of the survey; the yard in which the graffiti occur is marked Y; the large open area (in which the north point is placed) was the school playground; PH = public house

The Building

The principal building recorded (figs 2, 3) was erected in 1903–4 in red brick with a minimal use of stone. It comprised basement, ground floor, and first floor, and was in a domestic style, drawing on both classical and vernacular elements. Elevations were asymmetrical, reflecting the internal planning, especially in the disposition of windows. The windows themselves had wooden sashes with top fanlights and stone sills. The roofs were of Welsh slates laid on boards. The entrance was in the west wall of a vestibule, parallel to and approached from Owen Street. The brick door-surround had a segmental stone pediment carried on stone console-brackets; above it were a classically moulded cornice and coping, both of stone, returned along part of the north wall. The location of the entrance would have been convenient for boys crossing to the building from the main school building on the north side of

Owen Street.⁸ The relevant section of the street – some two-thirds of its length – had been closed to through traffic by gates at the west and by a row of posts at the east since before 1874 (*cf.* fig. 1), doubtless out of concern for the boys' safety and for that of the inhabitants of the almshouses which originally stood to the south of Owen Street and were demolished in 1879. There was thus no need for a ground-floor entrance in the St John Street frontage, where there was a narrow railed *area* with entrances to the basement and to cellars under the pavement. The absence of a doorway gave a somewhat blank-faced look to this façade.



Fig. 2. The principal school building recorded by MoLAS: ground-floor plan: **E** = entrance; **G** = walls on which graffiti occur

Internally, the basement was divided into a number of bays, used for storage. On the ground floor, partitions divided the main L-shaped space into a number of rooms (fig. 2): this was a later modification, although the partition to the south of the north-west room may have been on the line of an original. This room – which had a brick wall to its east, a fireplace, and a stair down to the basement – possibly served as a master's study. The main space on the first floor was open, with a cast iron column replacing, and resting on, the not-quite-central brick pier of the lower floors.

By the time of the MoLAS survey the building was empty. It has since been demolished. Its loss need not be greatly regretted, although its use of bricks and the schoolboy graffiti on some of them are of interest.

The Bricks and Brickwork

The external red bricks measured $8\frac{7}{8} \times 4\frac{3}{8} \times 2\frac{3}{4}$ in. $(225 \times 110 \times 70 \text{ mm})$ and were laid in English Bond with fairly fine joints of $\frac{3}{8}$ in. (10 mm) or less, pointed with black mortar. Three-quarter bats, some $6\frac{1}{4}$ in. (160 mm) long, were used occasionally to maintain bond, whilst closers were used as required at angles and openings. Some of the bricks showed longitudinal pressure marks. Specials were used for platbands (one at each sill level) and for the non-stone portions of the door-surround of the entrance, which included sunk panels. The specials (fig. 4: a-f) comprised: sunk quarter-round mouldings (quadrants) on stretcher or



Fig. 3. The principal building recorded, from the north-west, showing the St John Street front (right) and the side along Owen Street (left): photograph Maggie Cox, ©MoLAS

header faces; internal and external returns of the same form; sunk quarter-round mouldings at right-angles to the bedfaces; and sunk three-quarter round mouldings at right-angles to the bedfaces. Dentil-courses at eaves-level were formed from projecting standard bricks, as were the simple square mouldings along the verges of the gables and on the base and head of the chimney stack at the west end of the north face. Except on the entrance vestibule the eaves had iron gutters whose form echoed that of the quadrant bricks. The segmental window-head arches were also of standard bricks and were laid as two courses of headers on edge.

The choice of fine red facing bricks was perhaps intended to point up the contrast with the contemporary Board schools. Basil Champneys (1842–1935) had used red bricks – always his favoured material – for his early Harwood Road Board School in Fulham (1873, demolished) but that was unusual, and for reasons of economy subsequent Board schools were typically of the relatively cheap, but good quality, yellow-brown London Stocks, with red brick confined to window surrounds and other dressings.⁹ In the Owen's School building it was only the east wall and a short return to the vestibule that were of exposed London Stocks: these walls, significantly, were away from public view. The London Stocks measured $9\frac{1}{4} \times 4\frac{3}{8} \times 2\frac{1}{2}$ in. (235 × 110 × 64 mm) and were laid in English Bond.

In the interior walls the lower portion was of brown salt-glazed bricks, manufactured from fireclay, $9 \times 4\frac{3}{8} \times 2\frac{7}{8}$ in. (230 × 110 × 73 mm), in English Bond with very fine lime



Fig. 4. Specials used in the brickwork of the school building

putty joints of 1/8 in. (4 mm). Above this, in the vestibule, the stairway, and the main space on the first floor the walling was of machine-made greenish-buff bricks with a hard semivitrified finish, $8\frac{5}{8} \times 4\frac{1}{2} \times 2\frac{5}{8}$ in. (220 × 115 × 67 mm), in English Bond with fine joints of $\frac{3}{8}$ in. (10 mm). They appeared from their fabric to be from the same source as the glazed bricks. On the staircase the glazed brickwork was stepped to follow the rise of the treads. The main space on the ground floor was different: it had the lower brown-glazed brickwork, but immediately above this was a wooden dado-rail, and above that the wall was plastered: behind the plaster the walling was of London Stocks, confirming that the plastering was a primary feature, not a later modification. The glazed bricks, common enough in school and other institutional buildings of the time, would have been used for the sake of cleanliness; the buff bricks would have helped maximise light within the building. At most angles single-bullnose bricks (both salt-glazed and buff) were used to form quarter-rounds (fig. 3: g), thus avoiding sharp corners which would be both painful if knocked against and themselves vulnerable to damage. In the 9-inch (230-mm) spine wall between adjacent flights of the dog-leg stair double-bullnose bricks (fig. 3: h) were used in alternate courses, with paired single-bullnose bricks in the other courses. At one point a single-bullnose run-out stop was used inverted (fig. 3: i) in the transition from a quarter-round to a right-angled form some 6 ft 9 in. (2.1 m) above floor level - thus well above (adult) head height.

The boundary wall north of the vestibule was mostly of red bricks similar to those of the external faces of the school building. The north face, however, had the bottommost 4 ft 6 in. (1.4 m) or so of the brown-glazed bricks. The presence of glazed bricks in the external face of a (non-industrial) boundary wall is at first a little puzzling, but was almost certainly connected with a public urinal which stood in front of it at the time that the school building was erected. Ordnance Survey maps show that the urinal had been in existence since before 1871, was still there in 1914, but had been removed by 1952. It must have formed a noisome and unwelcome neighbour to the school. Above the glazed brick portion the wall was entirely of red bricks. It

included on the external face two sunk panels with simple 45°-plinth bricks forming their feet, presumably to reduce the load of a free-standing wall. The brickwork was in English Bond. On the south (yard) face the graffiti (see below) did not occur above the level to which the glazed bricks reached on the north face. This may reflect no more than the height to which schoolboys could reach. On the other hand, the upper portion of the wall (unlike the lower portion with the glazed bricks) was not bonded into the school building at the west and may therefore have been a later addition or rebuilding, possibly carried out when the urinal was demolished.

The wall defined a fairly narrow ramped yard giving access to two entrances to the basement. The yard was paved with blue engineering-brick paviours with a lozenge-pattern grip (so-called 'chequered bricks'); they measured $9\frac{1}{4} \times 4\frac{1}{2} \times 3$ in. (235 × 115 × 76 mm).

The Graffiti

Graffiti of various kinds had been incised into the fairly soft red bricks on the north (external) face of the entrance vestibule and into the similar bricks of the south face of the northern boundary wall. They were presumably cut by boys waiting in the yard before entering the building, which was used for eating packed lunches as well as for lessons. Graffiti were not observed on any other of the walls. They were probably made using a penknife or the point of a pair of compasses. There were also small segmental depressions ('cup-marks') made by twisting a coin in the brick surface.¹⁰ Most of the graffiti comprised initials with occasional dates, mostly 1938 and 1947, the latter also appearing in Roman numerals: MCMXLVII; there was at least one of 1935. But much more unusual were a diagram of the Euclidean proof of Pythagoras' Theorem and a series of heraldic shields incised, with varying degrees of competence, in the bricks of the northern boundary wall. The dates probably apply to *all* the graffiti: that is to say, all, including the Pythagoras diagram and the shields, probably date from the 1930s or later 1940s – though not from the war years 1939–45, when the school was evacuated to Bedford.

The Pythagoras diagram

The Pythagoras diagram (fig. 5) was presumably cut by a schoolboy explaining the proof to another or possibly revising the proof for himself. It showed a right-angled triangle with the hypotenuse as base and the shortest side to the right. The angles were labelled in capitals: A (damaged), B, and C. On each side was drawn a square, and the angles were labelled D, E (damaged), F, G, H (damaged), and J. A line was drawn downwards from A parallel to BJ and the letter I scratched at its foot. Also added were some of the other lines used in the proof. There were some lines *not* required in the proof: it is possible that these were part of an initial, and erroneous, attempt to construct the diagram, especially since they were cut deep and wide like the triangle and squares, whereas the *correct* lines were shallower and thinner. It looks rather as if the first attempt included knowledge that the proof involves the half-areas of squares but a misremembering of how these are used. Perhaps one may even imagine the class swot stepping in to show how it *ought* to be done!

Pythagoras' Theorem, of course, states that in a right-angled triangle the square on the hypotenuse is equal to the sum of the squares on the two opposite sides: in the diagram (fig. 5 bottom right), if the sides opposite angles A, B, and C are a, b, and c respectively, then $a^2 = b^2 + c^2$. The following is an explication of the proof which the graffito illustrates.

It begins by demonstrating the congruence of triangles DBC and ABJ: being the sides of squares, BD = AB and BC = BJ; $\angle DBC = \angle ABJ$, each being 90° + $\angle ABC$: the triangles are thus congruent by SAS and therefore have equal areas. Triangle DBC is on the same base (BD) and between the same parallels (BD, CE)¹¹ as the square ABDE and is therefore

equal to half its area – since the area of a square = base × height and the area of a triangle – $\frac{1}{2}$ base × height. Similarly, triangle ABJ is equal to half the area of rectangle BOIJ. The square ABDE is thus equal in area to the rectangle BOIJ. In similar manner, the area of square AFGC is shown to be equal to that of the rectangle CHIO. Since the two rectangles (BOIJ, CHIO) together form the square BCHJ, then that square must be equal in area to the sum of the areas of squares ABDE and AFGC. That is, the square on the hypotenuse is equal to the sum of the squares on the two opposite sides, or $a^2 = b^2 + c^2$. QED.



Fig. 5. The graffito of the proof of Pythagoras' Theorem: top: rubbing (scale 1:1); bottom left: tracing showing the lines included (broken lines indicate those not necessary for the proof); bottom right: the diagram as it should appear in its complete form

The nature of the proof probably explains why not *all* the necessary lines were included in the graffito, since having proved that *one* square is equal in area to its corresponding rectangle it is sufficient to observe that one simply repeats the procedure with the other square and rectangle, as indeed was commonly done in school textbooks.¹²

The heraldic shield

The shield shown in the graffiti (fig. 6 is a rubbing of the best example) is based on that of the



Fig. 6. The best example of the graffiti of the school badge (rubbing: scale 1:1)

Brewers' Company of the City of London (fig. 7 left), which was adopted by the school from its trustees.¹³ Arms were first granted to the Company on 23 July 1468 by William Hawkeslowe, Clarenceux King of Arms, but were replaced by a second grant, issued by Thomas Hawley, Clarenceux King of Arms, on 29 February 1544.¹⁴ Modern blazons of the shield differ slightly but are equivalent in meaning;¹⁵ an acceptable version (with alternative readings) is: *Gules, on a chevron engrailed argent between three pairs of barley sheaves* [or *garbs*] *saltirewise or three kilderkins* [or *tuns*] *sable hooped or*. The *barley sheaves* and the *kilderkins* – small barrels of 2 firkins or 18 gallons capacity – are, of course, appropriate to the brewing trade; *tuns* are no less appropriate, being barrels of 12 kilderkins or 216 gallons capacity.

It may be the circumstance of a double grant of arms that has led to some confusion amongst heraldic scholars and others. Henry Gough and James Parker, for example, wrongly state that the second grant merely *confirmed* (rather than replaced) the first and give the blazon according to the second grant but with the non-engrailed chevron of the first (see fig. 7 right); so too does A.C. Fox-Davies, although his illustration shows the chevron engrailed; contrariwise, Geoffrey Briggs and Reginald Dare, whilst giving the blazon correctly, depict the arms with a non-engrailed chevron.¹⁶ The incorrect version appears on a seal formerly included on the Old Owen's Association website, and seems to have been the form used on marble shields in the central curved gable and over the entrance to the master's kitchen of the 1840 school building (later replaced), and described in the late nineteenth century as 'gules on a chevron arg[ent] between three saltiers of garbes, or, as many tuns sable'. It appeared too over the entrance to the Brewers' Hall of 1670-73, destroyed by enemy action in 1940. But on Brewers Buildings, a set of working-class tenement-blocks built by the Brewers' Company on its property in Rawstorne Street, Clerkenwell (now Islington) in 1871-82, the shield is shown with the correct engrailed chevron. This is the form now employed by the school, as too by the Brewers' Company: it appears, for example, on the post-war Brewers' Hall, Aldermanbury Square, EC2, built 1958–60 to a design by Sir Hubert Worthington (1886–1963).¹⁷

This confusion affected the badge used on the Owen's School uniform, introduced in the early twentieth century. At first the badge was worn only on the black school cap, the blazer having a different device. During the later 1930s, however, 'some commercial firms ... designed larger versions of the cap badge for use on the blazer pocket. These were sold



Fig. 7. The arms of the Worshipful Company of Brewers of the City of London: *left*, the correct shield, following the blazon of 1544, and as now used by Owen's School; *right*, the incorrect shield as formerly used by the school and as shown, though without the kilderkins, in the graffiti

without permission, but ... through their cheapness found a ready sale and gradually ousted the official blazer badge sold in the School.' In the late 1940s an official blazer badge based on the Brewers' Company arms was introduced. At first it had a black background and two crossed arrows beneath the shield. By 1963, however, the background was made 'a more pleasing red', corresponding to the *gules* of the Brewers' Company shield, and the crossed arrows were placed above rather than below the shield.¹⁸ This is the version still worn on the school blazer – the school cap, of course, has long gone.

The form used, particularly before the late 1940s revision, was not always trustworthy and seems to have included the non-engrailed chevron, for it was that form that was depicted in the brick graffiti. Presumably they were copied from the boys' own blazer or cap badges. Although the *pairs of barley sheaves saltirewise* are shown as well as possible for a schoolboy cutting into brickwork, no attempt seems to have been made to include the kilderkins – presumably because of the restricted scale imposed by the size of the brick. The crossed diagonal lines below the shield are probably an attempt to represent the crossed arrows which appeared beneath the school badge before c.1960.

The graffiti: general considerations

The Pythagoras diagram and the shields are, perhaps, unusual graffiti to encounter on school walls: when not limited to initials and dates, after all, schoolboy graffiti tend to be somewhat more basic! But they are interesting examples of the relatively soft nature of bricks inviting graffiti. It is an aspect of the history of brickwork which has not received a great deal of attention.¹⁹ At Owen's School, the *terminus ante quem* provided by the 1935 date is not especially helpful since the building is independently dated some three decades earlier anyway, although the dates on the northern boundary wall do confirm that at least the lower portion of that wall was not rebuilt in the post-war years. But in other cases such graffiti may well provide valuable dating evidence for walls or structures which are not otherwise readily dated, and they should certainly be looked for when recording brick (and, of course, other) buildings.

Acknowledgements

The authors, and MoLAS, are grateful to Andrews Sherlock & Partners (and especially to David Lloyd) and to the Dame Alice Owen Foundation for their help during recording of the building; to Groveworld, the developers of the site; and to Pru MacGibbon and D.J. Ross MBE, Archivist and Clerk to the Worshipful Company of Brewers respectively, for historical information. C.E.A. Cheesman, Rouge Dragon Pursuivant, and M.P.D. O'Donoghue, Bluemantle Pursuivant, kindly supplied the references in the College of Arms to the grants of arms to the Brewers Company. Thanks are due also to Sally Brooks, Librarian of the Museum of London, and to the staff of the Guildhall Library, London for their help; also to André Beeson for discussion of Pythagoras' Theorem. The project manager at MoLAS was Sophie Jackson.

Notes and References

- 1. A. Westman, T.P. Smith, and R. Cowie, 329 St John Street (formerly Owen's School), London EC1, unpublished standing building survey report, MoLAS, 2004. This contains Andrew Westman's much fuller description of the building than that included here, which concentrates on the bricks and brickwork. The national grid reference is TQ315830 and the site code is SJI03. The present contribution is ©MoLAS.
- For the history of the school: R.A. Dare, A History of Owen's School (1613-1976), revised edn, Barnet: The Barnet Press Group, 1980; see also, for the foundation of the school, the subsequent history of the site down to c.1880, and Dame Alice's personal history: W.J. Pinks, The History of Clerkenwell, with additions by the editor, E.J. Wood, 2nd edn, London: Charles Herbert, 1881, pp.471-83; there are further details in J. and H.S. Storer, History and Description of the Parish of Clerkenwell, London: Longman, Rees, Orme, Brown, & Green; Sherwood & Co; Simpkin & Marshall; and J. & H.S. Storer, n.d. but 1828, pp.381-8. The land purchased by Dame Alice was known as Ermitage or Hermitage Fields on account of a hermitage – founded by the Knights Hospitallers in 1511 – which formerly stood on it.
- 3. Pinks 1881, p.476; for the Brewers' Company see, e.g., J.K. Melling, *Discovering London's Guilds and Liveries*, 5th edn, Princes Risborough: Shire Publications, 1995, pp.41-2.
- 4. Pinks 1881, pp.475-6; this is an early translation of the original Latin version: *pueris* might more commonly be rendered as 'of *boys*', but 'of *children*' is possible and is consistent with the preceding 'sons and daughters'.
- 5. For the context: M. Seaborne, *The English School: its Architecture and Organization 1370-1870*, London: Routledge & Kegan Paul, 1971, pp.33-61 and references therein.
- 6. Pinks, 1881, p.476 (capitals as in original).
- They took with them the 1897 statue of Dame Alice by (Sir) George Frampton (1860–1928) and nine figures from her tomb in St Mary's Church, Islington, rescued when the medieval church was demolished, prior to rebuilding, in 1751: B. Cherry and N. Pevsner, *The Buildings of England: London, 4: North*, London: Penguin Books for The Buildings Books Trust, 1998, pp.613–14, 657.
- 8. There are (different) photographs of the large school building north of Owen Street in Dare 1980, opp. p.145 and in R. Tames, *Clerkenwell and Finsbury Past*, London: Historical Publications, 1999, p.100; this was a new brick frontage of 1896 to a brick building of 1840, shown in an engraving in Pinks, 1881, p.481, with an engraving of the interior at p.482.
- T.P. Smith, 'Beacon of the Future: an Early London Board School by Basil Champneys', BBS Information, 74, June 1998, pp.14–20; for the London Board Schools: F. Kelsall, 'The Board Schools: School Building 1870–1914', in R. Ringshall, ed., The Urban School: Buildings for Education in London 1870–1980, London: Greater London Council/Architectural Press, 1983, pp.13–28.
- 10. This seems to have been a common pastime amongst schoolchildren: for other examples, in a sandstone wall near a bus stop: J. Dyer, *Rhubarb & Custard: Luton Modern School & Luton Grammar School for Boys*, Dunstable: The Book Castle, 2004, p.151; the book does not mention examples in the brickwork of the school itself, for some of which (it is now safe to confess!) I am responsible. The most extensive series that I have come across is in a brick wall on the west side of

Half Acre, Brentford, Greater London, towards its south end: the examples are again clustered on a stretch of wall by a bus stop used by schoolchildren. Doubtless there are other examples.

- 11. To be completely rigorous one should use the fact that $\angle BAC$ and $\angle BAE$ are both right-angles to establish that $\angle CAE = 180^{\circ}$ and that CE is thus a straight line; also that because ABDE is a square, AE is parallel to BD and therefore CE is also parallel to BD.
- 12. For example H.S. Hall and F.H. Stevens, *A School Geometry, Parts I and II*, 3rd edn, London: Macmillan, 1904, pp.118–19; this book was still in print and was used in schools in the interwar period. There are numerous other proofs of the theorem; this one, which is typical of Classical Greek mathematics in its geometrical approach, was devised by Euclid (*c*.325–*c*.265 BC), and appears in *Elements*, Book I, Proposition 47.
- 13. For a full discussion of the arms: T.P. Smith, 'A Confusion of Arms: the Shield of the Worshipful Company of Brewers of the City of London', *The Coat of Arms*, 3rd series, 1, 1 (209), Spring 2005, pp.37–46.
- 14. College of Arms record Ms Misc. Grants 1/19, 5/71 and record Ms Misc. Grants 2/279 respectively.
- J. Bromley and H. Child, The Armorial Bearings of the Guilds of London, London: Frederick Warne, 1960, p.28; Dare, 1980, pp.217–18; G. Briggs, ed., Civic & Corporate Heraldry: a Dictionary of Impersonal Arms of England, Wales & N. Ireland, London: Heraldry Today, 1971, p.72.
- 16. H. Gough and J. Parker, A Glossary of Terms Used in Heraldry, new edn, Oxford and London: James Parker, 1894, p.592; A.C. Fox-Davies, The Book of Public Arms, London and Edinburgh: T.C. & E.C. Jack, 1915, pp.106, 107; Briggs 1971, pp.72, 79; Dare 1980, pp.108, 217–18. The earliest example of the incorrect version that I have come across is on an armorial plate accompanying the figure brass of Roger James, brewer (d. 1592), now in the sanctuary of All Hallows-by-the-Tower, London EC3: Smith, 2005, p.42; there is a reproduction of a rubbing in Survey of London, vol. 15, The Parish of All Hallows Barking (= All Hallows-by-the-Tower), Part 2, London: London County Council/Country Life, 1934, pl.73.
- 17. The Old Owen's Association website is: http://www.oldowens.co.uk/ooa/history.php3, but the seal is no longer included; for the marble shields on the former school building: Pinks 1881, p.477, with illustration at p.481 and with text taken, with acknowledgement, from S. Lewis, *The History and Topography of the Parish of St Mary, Islington*, Islington: J.H. Jackson, 1842, p.421; for the destroyed entrance to Brewers' Hall: P. Norman, *The Ancient Halls of the City Guilds*, London: George Bell & Sons, 1903, drawing at p.131; Brewers Buildings are on the south side of Rawstorne Street, EC1 and are dated by plaques; they are in a Gothic style using London Stocks with red brick trim and are probably by E.B. Martineau, Surveyor to the Brewers' Company: Cherry and Pevsner 1998, p.634; the shield on the new Brewers' Hall is on the north face, in Brewers' Hall Garden: colour photograph in Smith, 2005, pl.7; for the building: S. Bradley and N. Pevsner, *The Buildings of England: London, 1: The City of London*, London: Penguin Books for The Buildings Books Trust, 1997, pp.379–80.
- 18. Dare, 1980, pp.216–17; Smith, 2005, pp.43–4. The arrows are a reference to a story, which exists in several versions, concerning the reason for Dame Alice's foundation: the most frequently quoted version relates that, when still a girl, Alice 'was walking abroad in the fields ... when she observed a woman milking, and had a mind to try the cow's paps, whether she could milk, which she did; at her withdrawing from the cow, an arrow was shot through the crown of her hat (then worn very tall), which so startled her that she then declared [that] if she lived to be a lady, she would erect something on that spot of ground in commemoration of the great mercy shown by the Almighty in that astonishing deliverance': this, and two other versions of the story, are included in Pinks, 1881, pp.473–4. The first version is also in Dare 1980, p.18, and on the Old Owen's Association website, as n.17.
- 19. But see D.H. Kennett, 'Schoolboy Graffiti', BBS Information, 91, July 2003, p.35, on pupils' names cut into a brick wall at Winchester College, including A. TROLLO[P]E: Anthony Trollope (1815-82) was a (not very happy) pupil at Winchester between 1827 and 1830, before returning to Harrow, where his school career had started. See also P. Guillery, Survey of London, 'Police Graffiti, New River Head, Finsbury', Trans. London & Middx Archaeol. Soc., 55, 2004, pp.85-7, noticed in this issue, pp.18-19. For the historical value of (painted) graffiti see J. Schofield, 'Why Write Off Graffiti?', British Archaeol., 81, March/April 2005, p.39.

INDUSTRIAL DISPUTES IN VICTORIAN BRICKYARDS 2: THE 1890s

P.S. Brown and Dorothy N. Brown

Introduction

During the 1860s brickmakers were frequently protesting, sometimes violently, against the introduction of any brickmaking machinery.¹ By the 1890s this battle had been largely lost, but economic changes produced fluctuations in the price that brickmasters could command for their bricks and, consequently, in the wages they were willing to pay their operative brickmakers. The latter might resist proposed pay cuts or even demand a rise if the time seemed propitious. The resulting confrontations were sometimes resolved by negotiation, but commonly they resulted in a strike or lockout. Such situations are explored in this paper by examining a selection of brickyard disputes during the 1890s. Official lists of strikes, published from 1889, are extremely useful, if not always comprehensive.²

The 'New Unionism'

In the 1860s brickmakers were usually represented by their own specific trade unions, but this had changed by the 1890s. The successful dock strike of 1889 had signalled the arrival of socalled 'new unionism' and the growth of large and more 'general' unions accepting members from all grades of skill including brickyard workers.³ One, arising directly from the dock strike, was the Dock, Wharf, Riverside and General Labourers' Union (DockWRGLU) founded by Ben Tillett (1860–1943); another general union was the Gas Workers and General Labourers' Union (GasWGLU) founded by Will Thorne (1857-1946). Tillett and Thorne both became MPs and, coincidentally, both had worked in brickyards when young. Tillett's first job was as a child in a Bristol brickyard: Thorne was the son and grandson of brickmakers, his father leaving their home in Birmingham during the summer to work in the Middlesex brickyards and returning home, often to work in the gasworks, in the winter. Working alternately between these two occupations with complementary seasonal demands for labour was common and the GasWGLU frequently organised brickmakers as well as gas workers.⁴ The smaller Birmingham-based Amalgamated Society of Gas Workers, Brickmakers and General Labourers, founded in 1889, acknowledged this association in its title. At its first annual meeting it had 200 members, the number just topping 5000 by the end of the century.⁵ Many brickyard strikes during the 1890s were organised by these general unions.

Disputes in the 1890s

In March 1890 the bargemen of the North Kent Coast were in dispute with their employers, the local brickmasters who owned many of the barges that carried their bricks to London.⁶ The bargemen claimed that they had accepted a reduction in pay when the price of bricks fell on the understanding that it would be restored when the price rose again. They maintained that their employers had not fulfilled their promise, and resentment grew until, encouraged by the successful dock strike, the bargemen presented a demand for improved rates of pay. The masters refused, tying up their barges and closing their brickyards. The lockout was reported as affecting 'several thousand men in the brick industry'⁷

Hardship was soon felt. Soup kitchens were opened and the Poor Law Guardians were approached to provide assistance for those of the locked-out brickmakers who were not supported by a trade union. Many of the brickworkers however were members of the Kent and Sussex Labourers' Union which was reported to be paying about a thousand brickworkers strike pay of 10s. a week.⁸ The brickmasters were also organised, the main suppliers of bricks to London having met in January and agreed to cooperate to deal with 'the various labour questions as they arise'.⁹ So the masters held firm, rejecting suggestions of arbitration. The strikers sought public support with a 'pageant' of several hundreds of women and children with bands and banners involving, according to *The Times*, about five thousand people.¹⁰ But at the same time, it was rumoured that the Kent brickyards might never recover, since large quantities of Peterborough bricks were already being sent to London.¹¹ After 57 days, a compromise was agreed and the strike ended.¹²

The Kent strikers had been supported by a 'general' trade union and, in April 1891, a strike of brickmakers from 17 brickyards in the Cowley and West Drayton districts of Middlesex was organised by another general union, the GasWGLU. The strikers demanded an increase in pay of 6d. per 1000 bricks and, after 17 weeks, the increase was granted – but the return to work was in mid-August when little of the brickmaking season remained. The strikers were able to hold out so long because they received strike pay from a union with the strength of 35,719 members. Its officers were, however, disappointed that little financial support towards the strike was provided by other unions. With the sanction of the London Trades Council, 500 appeals for aid had been made but only 25 unions responded. Contributions were however received from the Austrian Labour Party and from the residue of the Australian contribution to the dock strike.¹³

In the following year, the GasWGLU organised another brickyard strike in the London area. In April 1892 the brickmakers of Acton and Shepherds Bush struck for an advance of pay. The strike and, importantly, the background against which it took place, has been described by A. and T. Harper Smith.¹⁴ They report that 250 men were on strike, 100 being members of the GasWGLU and 150 not belonging to a union. Eight brickworks were involved: one master conceded to the men's demands at once because he leased his brickfield and was obliged to pay a fixed royalty whether he made bricks or not. A second gave in shortly afterwards, as he explained 'to protect ourselves against our neighbour, who would not only be making an extra price by the stoppage of our works, but would be taking our customers'.¹⁵ The other masters held firm and closed their brickyards for the season, some evicting brickmakers from their cottages. The masters could do this because the Kent and Essex and the Cowley Brickmasters' Associations agreed to supply them with all the bricks they required to maintain their businesses.¹⁶ The Harper Smiths note that the brickmakers returned to work in April 1893 at the old rates, but this conflicts with official reports which show some increase in wages.

The GasWGLU also organised a strike at the Royal Potteries, Weston-super-Mare, during 1892. This firm had probably originated as a brick and tile works supplying the rapidly growing resort: but it became best known as a major producer of flower pots.¹⁷ The strikers sought new rates for making 'Single Roman [roofing] Tiles' and for making bricks in the 'double steam machine', and for a 10 per cent rise for potters. The brick and tile demands were conceded in a little over six weeks and a date arranged for settlement of the potters' demand by arbitration.¹⁸

An unusual strike, also in 1892, was at the Dowlais Iron Works, near Merthyr Tydfil, which had its own brickyard to manufacture refractory bricks (firebricks), and in which all the processes, including moulding, were carried out 'almost exclusively' by women. For about a fortnight in early May, 30 or 40 brickyard 'girls' went on strike for a wage increase of 1s. a week. A local newspaper, reporting 'The Novel Strike', was somewhat patronising towards the 'girls' who 'made things lively for the various overmen, gaffers and managers', yelling and screaming at them, while the women's work was carried on 'to some extent' by labouring men. But the report admitted that public sympathy was 'entirely with the girls', who returned to work at a compromise offer of 6d. a week.¹⁹ Newspaper reports did not mention any trade

union involved at Dowlais but by 1900 not only the large general unions but also the local brickmakers' unions at Birkenhead and Liverpool included female members. Well after the 1890s, striking firebrick workers at Stourbridge in 1913 demanded pay increases and a minimum wage of 10s. a week for women. The strikers were successful and the agreement was signed on behalf of the Amalgamated Society of Gasworkers, Brickmakers and General Labourers and of the National Federation of Women Workers.²⁰

A Royal Commission, reporting in 1893, was informed that the Merthyr Trades Council had condemned the employment of women in collieries and brickyards, but the female Assistant Commissioner reporting on brickyards in Wales took a different view. She found that the only 'objectionable task' was moving loads of wet clay, which the girls carried on their backs rather than in the wheelbarrows provided. Moulding the bricks was 'very pretty' work and other processes not unduly heavy. The women she found were all single, mainly the daughters of colliers, who started at the age of 16 and lived with their parents. They appeared healthy and were steady workers, those on piece work were said to be earning from 5s. to 10s. a week.²¹

The important tile and brick making town of Bridgwater, Somerset²² was the site of another brickyard strike, in 1896, organised by a large general union, the DockWRGLU. There had already been a Bridgwater strike in 1889 when up to 500 brickyard labourers demanded an increase from 2s. 3d. to 2s. 6d. a day for digging clay and 'wheeling slime', presumably the river deposits for making Bath bricks. The strikers wanted brickyard workers at Pawlett, four miles downstream, to join the strike and a crowd of 500 assembled in Bridgwater intending to march to Pawlett: but they dispersed when confronted by police reinforcements. The Pawlett workers struck only briefly because the Bridgwater strikers could not help them to provide strike pay. This suggests that the strike, which ended unsuccessfully after five weeks, was not managed by a large or well organised trade union.²³ There were then two small but successful strikes: in 1894, seven 'kiln setters and drawers' struck for six days for an increase in pay for working with a new type of tile; and in late 1895, eight men in the Bath brick industry struck for a week, complaining of an unsafe kiln.²⁴ Then came the major strike organised by the DockWRGLU.

At the end of May 1896, at least 800 brickyard workers in Bridgwater went on strike for an increase in pay and managed to hold out for seven weeks: but they could no longer do so when the opposition of the masters was strengthened by calling in a large reinforcement of police and a hundred soldiers, and, after a crowd had overturned and broken up cartloads of tiles, by reading of the Riot Act. Then, despite union advice to go home quietly, a large crowd assembled in the High Street only to be cleared by a column of police and the soldiers marching with fixed bayonets. A detailed and dramatic account of the events by Brian Smedley illustrates how a large general union could organise a powerful strike which was only defeated by extreme measures.²⁵ In the previous year, the prominent socialist president of the DockWRGLU, Tom Mann, had spoken in Bridgwater to excite and politicise the workers. To organise the strike, the union sent Harry Orbell who had handled the Tilbury Dock during the 'great London dock strike'; and, during the strike, Ben Tillett himself visited Bridgwater to make a 'passionate campaigning speech'. Strike pay was at first 10s. a week, but even a union with 10,000 members had later to reduce it to 5s. a week. Smedley's detailed account is particularly valuable because it is frankly partian and presents the strike as it might have been seen by many of the strikers.

In April 1893 a strike in three brickyards at Headington, Oxon. was associated with yet another general union, the National Amalgamated Labourers' Union. At this time it represented about 3000 members and also acted like a friendly society in providing sickness and burial benefits. The strike was for an increase in pay and changes in working hours including cessation of Sunday work. It ended after only six days when the union advised acceptance of

a compromise offer from the masters.²⁶

The Importance of 'General' Unions

The strikes that have been mentioned above illustrate the importance of 'general' unions, these being involved in all cases when a trade union has been identified. There were, however, some unions in the 1890s specifically for brickworkers. The United Brick Workers and Brick Wharf Labourers was founded in 1889 but dissolved by the end of the '90s. There were also local brickmakers' unions: one in Nottingham, set up in 1867, has been discussed previously, but others were established during the 1890s. One founded in 1890 was initially the Birkenhead and District Brickmakers' and Labourers' Union, and there was a suggestion that it might affiliate with the GasWGLU.²⁷ Its membership rose to 300 during the 1890s, this being the highest number achieved by any of the local brickmakers' unions listed in the official returns for that decade. The Shropshire Brickmakers' Association, founded in 1890, had dwindled to a membership of six when it was dissolved in 1898, and its successor the Salop Brickmakers' Union, founded with 50 members in 1899, lasted only one year. Liverpool was the only locality in which the official returns listed both a local brickmakers' union, founded in 1893, and a brickmakers' strike, also in 1893. Investigations centred in more northerly parts of the country may reveal local brickmakers' unions and strikes that escaped the official reports.



Fig. 1 Causes of disputes

Causes of Dispute

These official reports, despite their shortcomings, yield at least some statistical conclusions. The lists show 34 brickyard strikes during the 1890s and, in the great majority (28 = 82.4%) the reported reason for the strike was *pay*; three strikes (8.8%) were over union membership, two (5.9%) over hours of work, and one (2.9%) over safety (fig. 1). In 32 instances the out-

come of the strike was shown, with complete or partial success for the strikers in 23 cases (71.9%) and complete failure in only nine (28.1%). Thus the striking brickmakers achieved some advantages. But cold statistics give a very inadequate picture of their bitter struggles. For a more rounded view of working life in Victorian brickyards one must turn to accounts such as that of Andrew Connolly, who also gives examples of brickmasters' paternalism, which contributed another element to industrial relations.²⁸ Unfortunately, what is rarely heard is the voice of the individual brickmaker describing what the struggles of life and work looked like from his or her personal perspective.²⁹

Notes and References

- P.S. and D.N. Brown, 'Industrial Disputes in Victorian Brickyards, 1: The 1860s', *BBS Informa*tion, 99, January 2006, pp. 6–9. [See also R.N. Price, 'The Other Face of Respectability: Violence in the Manchester Brickmaking Trade 1859–1870', *Past & Present*, 66, February 1975, pp.110– 132. TPS]
- 2. Report of Chief Labour Correspondent on Strikes and Lock-outs in the United Kingdom in 1888, 1889, [C.5809], and subsequent annual reports, hereafter cited as Strikes with the year reported.
- 3. H.A. Clegg, A. Fox, and A.F. Thompson, *A History of British Trade Unions since 1889*, vol. 1, 1889–1910, Oxford: Clarendon Press, 1964, chapter 2.
- B. Tillett, Memories and Reflections, London: John Long, 1931, pp.32-3; Will Thorne, My Life's Battles, London: George Newnes, 1925, reissued London: Lawrence & Wishart, 1989, pp.14, 16-18, 29, 36, 43; see also E.J. Hobsbawm, Labouring Men: Studies in the History of Labour, London: Weidenfeld & Nicolson, 1964, pp.162, 174n.
- 5. Statistical Tables and Reports on Trade Unions, 1887 [C.5104], and subsequent years. Unless other source quoted, data on trade unions are from this source. Workman's Times, 3 October 1890.
- As described by F.G. Willmott in *Bricks and 'Brickies'*, privately published, Rainham (Kent), 1972. [See also R.-H. Perks, *George Bargebrick Esquire*, Rainham (Kent): Meresborough Books, 1981. TPS]
- The Times, 10 March 1890, p.10f.; Building News, 7 March 1890, p.365. For bargemen's accounts of the strike see Strikes 1890, pp. 214–15 (item 624). [And for a comment on 'the late bargemen's strike': B.A. Dan, 'A Kentish Brickfield', Good Words, 36, 1895, p.671. TPS]
- 8. Building News, 28 March 1890, p.469.
- 9. Building News, 24 January 1890, p.131.
- 10. The Times, 5 April 1890, p.5f.
- 11. The Times, 18 March 1890, p.10b.
- 12. The Times, 1890, 24 March, p.7f; 7 April, p.4d; 11 April, p.5d; 14 April, p.7e; Strikes 1890, summary tables.
- 13. Strikes 1891, tables and pp.258-60.
- 14. A. and T. Harper Smith, *The Brickfields of Acton*, Acton: Acton History Group, being *Acton Past and Present*, 26, 1991, especially pp.30–32.
- 15. Strikes 1892, p.157 (item 58).
- 16. Builder, 28 May 1892, p.425.
- 17. B.J.H. Brown, 'The Royal Potteries Weston-super-Mare', Industrial Archaeol., 1971, 8, pp.5-13.
- 18. Correspondence between union and employers in Somerset Record Office at DD/VB/1/13/1. See also the biased account in *Weston Mercury*, 2 and 9 July 1892.
- 19. J.A. Owen, The History of the Dowlais Iron Works, 1759–1970, Risca: The Starling Press, 1977, appendix B; Merthyr & Dowlais Times, 6 and 20 May 1892; Merthyr Express, 14 May 1892.
- 20. Strikes 1913.
- 21. Royal Commission on the Employment of Women, 1893-4, [C.6894-xxiii], pp.237-8, 246-7.
- 22. B.J. Murless, 'Bridgwater Brickmaking Tradition', *BBS Information*, 1991, **54**, pp.4–9; P.J. Squibbs, *Squibbs' History of Bridgwater*, revised J.F. Lawrence, London and Chichester: Phillimore, 1982.
- 23. Taunton Courier, 13 and 27 March, 10 and 17 April 1889.
- 24. Strikes 1894 and Strikes 1895.

- 25. Strikes 1896, pp.xxxviii, 156. B. Smedley, *The Bridgwater Brickyard Strike of 1896*, Bridgwater: Sheep Worrying Books, 1986 (copy in Somerset Studies Library, Taunton). *West Somerset Free Press*, 6 June, 4, 11, and 18 July 1896.
- 26. Oxford Times, 8 April 1893, p.8; the union was ambiguously described but identity confirmed by mention of names of officials.
- 27. Workman's Times, 19 and 26 September 1890.
- 28. A. Connolly, *Life in the Victorian Brickyards of Flintshire and Denbighshire*, Llanrwst: Gwasg Carreg Gwalch, 2003, especially pp.55–73, and, e.g., pp.272–4, 277.
- [But see, e.g., K. Marx, Capital: a Critique of Political Economy, vol. 1 (1867), trans. B. Fowkes, London: Penguin Books in association with New Left Review, 1976, pp.593-4; E. Royston Pike, Human Documents of the Victorian Golden Age (1850-1875), London: George Allen & Unwin, 1967, pp.131-2, 211-15. TPS]

BRICK IN PRINT

During 2005 and early 2006, the Chairman and Editor received notice of a number of publications which may be of interest to members of the Society. 'Brick in Print' is a now regular feature of *BBS Information*, usually appearing twice yearly. Members who are involved in publication or who come across relevant books, articles, or websites are invited to submit notice of them to the Editor. Unsigned contributions in this section are by the Guest Editor.

1. Peter Guillery, Survey of London, 'Police Graffiti, New River Head, Finsbury', *Trans.* London & Middlesex Archaeological Society, **55**, 2004, pp.85–7.

A brick wall, erected in 1806-7 along Myddleton Passage, Finsbury, London EC1, is the sole remnant of the perimeter wall around New River Head - the terminus of the New River Scheme, established in 1613, which brought water from Hertfordshire to the metropolis. The wall is of 'purple/grey stock bricks [presumably, stock as opposed to place bricks], and stands about 3 m[etres] high with diagonal brick coping,' and would be 'quite unremarkable, but for the fact that it bears a quantity of carved graffiti of mid-19th- to early 20th-century date' (p.87). The graffiti are illustrated by a large colour photograph (p.86). Sometimes misattributed to prisoners, the graffiti were in fact cut by police constables. The policemen usually recorded their collar numbers of two or three digits followed by a letter representing their division - most frequently 'G' for Finsbury Division. Where initials are given it is even possible using police records to identify individual constables, at least tentatively. The most certain attribution is to Frederick Moore, who had previously served at Devonport Naval Dockyard. He cut into the brickwork the graffiti 'FM 365G Aug 17 189[?]' and also '365 PLYMOUTH'. An oral tradition has it that the practice of cutting the graffiti was in honour of a murdered colleague. This might find support in the fact that the only full name in the wall is 'ROBINSON' and that in 1888 a Detective Sergeant Robinson of G Division was stabbed whilst on duty, except that two of the dates are earlier than the event: 'Dec 9 1865' and 'Feb^y 1866'. As Peter Guillery comments: 'Perhaps the boredom of night duties is sufficient explanation [for the graffiti]' (p.87). The text of the paper derives from that prepared for the Survey of London's forthcoming volume on Clerkenwell. It draws attention to a fascinating but little explored aspect of brick walling. (But see D.H. Kennett, 'Schoolboy Graffiti', BBS Information, 91, July 2003, p.35, and this issue, pp.8-12.)

 Lucinda Lambton, 'London's Hidden Houses', *Country Life*, 3 November 2005, pp.78– 89.

The opening sentence is arresting:

Barking and Dagenham, Carshalton, Bexley Heath [*recte* Bexleyheath] and Ickenham: these are not usually names to conjure up visions of the great English country house.

In these four and three other unlikely outer London boroughs with their extensive 1930s suburbs, Lambton finds seven remarkable buildings, either surviving country houses or associated buildings, plus the Chandos Mausoleum in St Lawrence's church, Little Stanmore. The borough of Barking and Dagenham, it should be noted, contributes two houses: the early Elizabethan Eastbury Manor in Barking, whose timbers were felled in spring 1566, and Valence House, now a museum, in the middle of the Becontree estate at Dagenham. The lastnamed was originally a small timber-framed house of the fifteenth century, now encased within later additions in rendered brick; the other houses or associated buildings are of brick.

Apart from the houses mentioned, Lambton provides brief notes on Arnos Grove, Southgate, with its magnificent painted ceiling by Gerard Lanscroon; Swarleys in Ickenham, once visited by Samuel Pepys; and Hall Place, Bexley, where late seventeenth-century brick is added to mid-sixteenth-century stone using re-cycled monastic materials. Two ancillary buildings caught the author's eye: the dairy at Ham House, Richmond, and the water tower at Carshalton House, which served no fewer than six different purposes: orangery or greenhouse, saloon, robing room, water tower, plunge bath, and picturesque eye-catcher. The plunge bath, built in 1719, has a marble floor and is lined with blue and white Delft tiles.

These are all open to visitors, some more accessibly than others. Each could provide the starting point for a British Brick Society meeting. The Visits Co-ordinator will be investigating them for possible visits in 2007 and 2008. DAVID H. KENNETT

3. Jan Marsh, *William Morris & Red House*, no place of publication stated, but London: National Trust Books, 2005; 160 pages; numerous illustrations in black-and-white and colour; ISBN 1 90540001 2; price £25, hardback.

Red House, Bexleyheath – which was visited by the British Brick Society in 2004 – was built in 1859–60, in what was then rural Kent, to a design by Philip Webb (1831–1915) for his friend William Morris (1834–96). It has achieved something of an iconic status in architectural history, its influence on later domestic architecture possibly a little exaggerated: as the late Stuart Rigold observed, it 'is generally thought of as a "trendsetter" for two [succeeding] generations, but it is also not only archaising but, in some vernacular references, conservative'. Aspects of its planning, moreover – specifically, the misplacing of the kitchen and the principal bedroom – reflect the young architect's lack of experience.

But none of this takes away from the fascination of, or the pleasure to be derived from, the building. Its name derives, of course, from its use of red bricks and roofing tiles, the former also deployed at key points internally. Although this attractively produced book contains little that is specifically concerned with bricks, chapter 3, 'The House', does discuss its architecture and its precedents. The book charts the full story of the house from its conception to the present. Of particular value are the excellent illustrations – including early photographs in (of course) monochrome, superb modern ones in colour, and reproductions of the architect's original drawings. The quality of production, including a robust binding, justifies the fairly high price, and the book will be a worthy addition to the shelves of anyone interested in nineteenth-century architecture and/or brickwork.

4. Sara Pavía and Susan Rowntree, 'An Investigation into Irish Historical Ceramics: the Brick of Arch Hall, Wilkinstown, Co. Meath', *Proc. Royal Irish Academy*, **105C**, 2005, pp.221–242 (available online at http://www.ria.ie/cgi-bin/ria/papers/100549.pdf).

This paper reports on analytical techniques applied to bricks used in Arch Hall, an early eighteenth-century mansion at Wilkinstown, Co. Meath, Ireland. A brief introduction on brickmaking in seventeenth- and eighteenth-century Ireland is followed by a description of the building: all that survives is 'a three-storey, nine-bay entrance front with cylindrical turretlike bows at each end and a broader three-bay semicircular bow at the centre of the façade' (p.222). The principal structural walls are of orange-red bricks measuring $9-9\frac{1}{2} \times 4\frac{1}{4}-4\frac{1}{2} \times 4\frac{1}{4}$ (mostly) $2\frac{1}{2}$ inches (229–241 × 108–114 × 63 mm). Although the precise building history is not known, 'it seems certain that the mansion house was constructed in the 1730s, and therefore could have been designed by either [Edward Lovett] Pearce or Richard Castle' (p.224), both prominent Irish architects of the period. Documentary evidence suggests that the bricks may have been made locally, and in order to test this hypothesis, and to ascertain other data concerning the bricks, clay was gathered from the demesne and fired for comparative purposes. Various analytical techniques were applied to the original bricks and to the newly-fired clay: apart from visual examination, the techniques employed comprised petrographic microscopy, X-Ray Diffractometry (XRD), and Scanning Electron Microscopy (SEM) with an Energy Dispersive X-Ray Diffraction attachment (EDX). The results of the tests are reported in detail, with photographs, tables, and graphs where appropriate. Conclusions are drawn that the bricks were probably 'hand-made using wooden moulds' (p.236), that artificial temper was probably added to the raw material, that the raw clay was 'probably gathered from a glacial or glacio-fluvial deposit' (p.237), that the bricks were probably kiln- (rather than clamp-) fired at a temperature between 700°C and 1000°C, and that the 'minerals, inherited from the raw clay, are consistent with the geology of the area' (pp.239-40).

Of course, such methods as those reported in the paper are complex and expensive, and thus rarely available to those studying bricks, whether as amateurs or as project-funded professionals. Some may perhaps feel that this is no great handicap, the results appearing somewhat meagre: it seems, for example, a costly way of finding out that it is 'probable' that these eighteenth-century bricks were hand-made in wooden moulds (what *else* might one expect?) or that their mineral content is 'consistent with' their having been made locally.

5. John Prizeman, *Houses of Britain: the Outside View*, London: Quiller Press, 2003, 134 pages, numerous colour illustrations, ISBN 1-899163-67-0, price £14-95, paperback

This is a new edition, edited by Mark Prizeman, the original author's son, of *Your House – the Outside View*, published by Hutchinson in 1975 and reprinted in 1982. The acreage covered by buildings is now, disturbingly, twice what it was when the book was first published. Much of the text and many of the illustrations, both colour-wash and photographs, are concerned with the use of colour on external surfaces. Separate sections are devoted to building in timber, mud, stone and brick, to rendering, and to various external details, such as chimneys and fenestration.

Readers of *BBS Information* may well turn first to the section on 'Building in brick' (pp.80–95). The brief text has few inaccuracies, though one may take issue with the claim that bricks imported into Suffolk *via* Ipswich in the Middle Ages or exported from Britain in the eighteenth century and later were carried as 'ballast' (p.80). Brick was and is a saleable cargo, much of it exported to specific orders, rather than speculative cargo. Brick may have had a *ballasting effect*, when stowed with other cargoes of relatively light weight, but it was carefully packed to withstand carriage across the North Sea or the Atlantic Ocean. Equally, the jury may perhaps return a verdict of non-proven on the author's assertion that there was a

flourishing trade in bricks sent by rail in the nineteenth century (p.85). Bricks *were* transported by rail for some projects, typically architect-designed buildings of high status, such as the Midland Grand Hotel, St Pancras, in the 1860s. And specialist products, such as firebricks and engineering bricks – necessarily manufactured in specific areas, where the essential raw materials were available – might be moved by rail, although many went by canal or coastal shipping. Bulk carriage of bricks by rail was certainly cheap, although that was an advantage only when a brickyard was close to a railway goods yard (or had its own sidings) *and* when the building site too was close to a goods yard. For most nineteenth-century brick buildings – including the vast quantity of urban housing – local sources not only sufficed but were relatively cheap to transport, even by road. A consequence is the distinct characters of individual towns – Luton and Leicester, for example, or Reading and Retford.

These quibbles aside, the author provides a succinct and accurate introduction to our subject within a wider context; and the illustrations are pleasing and well-chosen. DHK/TPS

6. Tim Richardson, 'The Kit-Cat Club at Claremont', *Country Life*, 17 November 2005, pp. 56–9.

Claremont, near Esher, Surrey, the house built by Thomas Pelham-Holles, first Duke of Newcastle (1695–1768), was surrounded by extensive grounds with numerous garden buildings. The largest of these was a tall castellated structure in pale red brick, built in 1715 and fitted up by Smallwell, the duke's joiner, two years later. The belvedere has exceptionally tall turrets, rising from a roof giving good views of the surrounding countryside and of the sky. The duke was a keen astronomer with a good telescope. Originally it was known as 'the white tower' on account of its being whitewashed. The building was designed by John Vanburgh, the previous owner of the estate, who would later erect sham castles at Castle Howard, Yorkshire, and a castellated house for his own use at Maze Hill, Greenwich. Claremont is a National Trust property and is open to the public. DAVID H. KENNETT

7. John Martin Robinson, 'Kirtling Tower, Cambridgeshire', Country Life, 1 December 2005, pp.64-9

Kirtling Tower, originally Kirtling Hall, was the largest house in Cambridgeshire in the 1660s; all that survives is a large free-standing gatehouse. The house was built in two phases by the first Lord North, before 1549 and between 1556 and 1558, although Lord North had originally purchased Kirtling Hall in 1533. A new porch with heraldic beasts was added in 1572, six years before the East Anglian progress of Elizabeth I: new kitchens were built for her visit in 1578. Reductions took place in 1748 and again in 1800, leaving only the gatehouse. In 1832, a small wing was erected since Kirtling Tower was used as a shooting lodge. Forty years later, the then Lord North, a convert to Roman Catholicism, added a four-bay extension in diapered brickwork with Costessey Ware chimneys to the left of but behind the tower gatehouse. As a Roman Catholic, he employed a co-religionist, J.A. Hansom, as his architect. Kirtling Tower fell into disuse and disrepair in the early twentieth century.

The estate changed hands in the 1940s when it was acquired by the present owners, successive Lords Fairhaven, who also owned Anglesey Abbey, also in Cambridgeshire, and South Walsham Hall, Norfolk. The former is now a National Trust property. No longer residing at either of these houses, Ailwyn, the third Lord Fairhaven, required both a new home and the space to display an important collection of botanical and ornithological books as well as paintings.

Harris of Francis Johnson & Partners to create suitable additions to a brick house already of two major periods. Digby Harris chose to use a Georgian Gothic style, partly because of fireplaces and other material to be inserted in the new rooms. This allowed him to repeat the diaper pattern from both earlier periods. It showed how to marry the twenty-first century with an historically important building, which the exterior photographs accompanying the article bring out with great sensitivity.

DAVID H. KENNETT

8. Beatrice Sant, 'Art for Art's Sake', *Heritage*, **129**, July 2006, pp.40–46; Helen Chappell, 'Secrets of the Suburbs', *Heritage*, **129**, July 2006, pp. 68–72.

The first of these two articles is concerned with Holkham Hall, Norfolk, built for Thomas Coke, the first Earl, in 1734–61. The article does not mention the architect, who in fact is the subject of some controversy. The building is attributed to William Kent (c.1685-1748), although Matthew Brettingham (1699–1769), Kent's supervisor at Holkham, claimed responsibility for its design in his 1761 publication on the building. The article concentrates on the paintings and 'treasures' within the house, but there is a fine double-page photograph of the south front, showing its assured Palladian style. At first glance, it appears to be of stone, but is in fact of stone-coloured brick. Not illustrated are the interiors of the courtyards, where – hidden from public view – cheaper red brick is employed.

The second article is a quick gambol around a number of buildings in various London suburbs, several of them of brick, including Sir John Soane's Pitzhanger Manor, various buildings at Harrow School, Gentlemen's Row and Forty Hall in Enfield, and the Red House in Bexleyheath; the so-called Queen Elizabeth's Hunting Lodge at Chingford is a Tudor timber-framed buildings but has a massive and impressive chimney stack in red brick. A useful – and responsible – appendix gives details of nearest railway or underground stations and continuing bus routes where applicable.

9. Richard Sundt (organiser and editor), 'AVISTA at Kalamazoo 2005: Brick and Brickwork in the Medieval World', *AVISTA Forum Journal*, **15**/1, Fall (= Autumn) 2005, pp.31–43

In the absence of full publication of the papers given at the three brick sessions at the 40th International Congress on Medieval Studies at Western Michigan University, Kalamazoo, Michigan, in May 2005, these summaries may have to suffice. Written by the papers' authors, they provide a longer record than was given in 'Editorial: Postcard from Kalamazoo' in *BBS Information*, **98**, November 2005.

Both Ahmet Caycý, on 'Brick Production in Anatolia: A Study of Traditional Method', and Alison C. Poe, on 'Brickwork in the Earliest Christian Catacombs: Crypta as Aedes, Sepulcrum and Domus', are short accounts of their papers. However, the next four writers give longer and illustrated accounts of their work: Richard G. Ousterhout on 'The Use and Reuse of Brick in Byzantine Architecture'; Barbara Perlich on 'Dependency of Medieval Brick on Social Esteem'; Richard Sundt on 'Northern Gothic Southernized and Mendicanized? The Buttresswork of the Friars' Churches in Toulouse'; and Richard Morris on 'Technical Aspects of Brick Architecture in Late Medieval England'. A fuller summary of David Kennett's paper, 'Patrons and Incomes: The Builders of Brick Houses in England before 1461', appeared in *BBS Information*, **98**, although the summary in *AVISTA Forum Journal*, **15**/1, includes two tables, the first about the status of the builders in four regnal periods of the fifteenth century and the second concerning the relationship of the building of brick houses by males to their level of income. DHK

CHRIST CHURCH, LUTON AND PRESSURE MARKS IN ITS NINETEENTH-CENTURY BRICKS

Terence Paul Smith

Introduction

Many of the bricks in the deconsecrated and now extensively rebuilt Christ Church, Luton show pressure marks of different forms from two firmly dated nineteenth-century phases. Such marks indicate the manner in which the newly moulded bricks were set in the *hack* for initial drying, before being re-arranged (*skintled*) for further drying. They therefore provide evidence for procedures followed at brickyards. The present contribution is concerned principally with the pressure marks, but to set that discussion in context the building history, which is quite complex, is first outlined.

Christ Church

The church, oriented to the north-east on a triangular site at the junction of Upper George Street (formerly Dunstable Street) and Inkerman Street, was founded as a chapel-of-ease to St Mary's, the town's medieval parish church, in 1856; it became an independent parish church in 1861.¹ In order to provide for an incumbent, the Vicar of Luton, Dr Thomas Peile, 'no doubt under a certain amount of pressure, surrendered a great deal of his [own] income'.² The earliest work (fig. 1 and cover illustration: *centre*) dated from 1856–7: an overwrought design by Henry Elliot of London and Dunstable, an architect about whom little is known. It comprised nave, transepts, north aisle, south porch, and polygonal apsed chancel with a polygonal organ chamber to its south and a small vestry to its north. At the south-west angle of the church was an attenuated bell turret, which was blown down by a high wind and had to be re-



Fig. 1 Christ Church, Luton: the building of 1856–7, from an engraving in *The Illustrated London News*, 16 January 1858

built shortly after the opening.³ In 1863–4 the south aisle was added, with a tower-cum-porch at its west end, and the south transept was rebuilt (fig. 2 and cover illustration: *right*), all to a



Fig. 2 Christ Church, Luton, c.1870: the original east end of 1856–7 and the additions of 1863–4

design by George Halton of Luton, again an architect about whom little is known.⁴ Plans for lengthening the north transept were prepared by John Henry Hakewill (1810–80) of London, although this work seems not to have been carried out. But in 1881 the east end, which had become seriously cracked, was replaced by a new square-ended chancel, chapel, vestries, and organ chamber (fig. 3: *right*) to a design by George Vialls (*fl.* 1868–1902) of London. Structural problems, which had beset the church from the beginning, led to rebuilding and enlarging of the north aisle (cover illustration: *left*) and underpinning and strengthening of the rest of the church in 1903–4, the architects being J.R. Brown & Son (*fl.* 1889–1907) of Luton. The spire was rebuilt in its present low pyramidal form in 1939.⁵

The work of all phases was in a Gothic style of c.1300. The result of the agglomerative building process (fig. 3) was an incoherent composition of individually mostly mediocre components. Viall's work was more competent than what preceded it – especially with respect to Elliot's feeble and fidgety east end (fig. 2), echoed in the over-busy west end (fig. 1 and cover illustration: *centre*) and the remarkably inept bell-turret (fig. 1), its lower half an excess of buttresses, its upper half a low bell-chamber topped by a dunce's cap of a *flèche*. The junction of the new chancel with the earlier building was, however, somewhat ungainly, although that would have been ameliorated if the intention had been realised of heightening the nave with a clerestory.⁶

The church was declared redundant in 1976. Ten years later much was demolished, leaving only the southern walls, including the tower, and a little of the interior: these were 'reused in combination with new work [in brick and in a Post-Modern style] which has a Victorian feeling harmonising well with the old parts';⁷ at the same time triangular dormers were inserted in some of the roofs. The building is now known as Christchurch House and is used as offices. It is listed Grade II. In late 2005 and early 2006 various repairs were carried out, including the repointing of some of the brickwork.



Fig. 3 Christ Church, Luton, c.1930: the work of 1863–4 and the rebuilt chancel and the south chapel of 1881. The chancel (far right) was replaced in 1986. The rest of what is seen here is extant apart from the spire, replaced by a lower version in 1939.

The Brickwork

Nothing remains of Elliot's work, although illustrations (e.g. fig. 1) show it to have been somewhat similar to, though more fussy than, Halton's additions. What remains of the latter is of red brick in Flemish Bond with Bath stone dressings; black bricks, both stretchers and headers, are used to form various patterns in the brickwork, whilst a much smaller number of white Gault bricks are used to create (flush) rustication at the angles.⁸ Little of Vialls' work is extant: it is of red brick, though in English Bond and without the black-brick patterning or the Gault brick rustication; pointing is in black mortar; dressings, which include strings, are of Bath stone. Nothing remains of the work of J.R. Brown & Son, but it was of plain red brick-work in English Bond with (Bath?) stone dressings, including strings.

The Bricks and their Pressure Marks

Pressure marks occur on many, though a minority, of the bricks.⁹ Those illustrated by rubbings (fig. 4) are from the south aisle or the tower and thus of 1863–4. These bricks measure $9\frac{1}{8}-9\frac{1}{2} \times 4\frac{1}{8}-4\frac{3}{8} \times 2\frac{1}{4}-2\frac{1}{2}$ in $(232-241 \times 105-111 \times 57-64 \text{ mm})$. Both diagonal and longitudinal pressure marks occur. The diagonal marks mostly consist of a single depression crossing the brick face (fig. 4a), although in a few cases there are two roughly parallel lines defining a quite wide $(c.1\frac{1}{2}-in, 40-mm)$ ridge (fig, 4b). The longitudinal marks comprise roughly parallel lines defining a narrow $(c.\frac{5}{8}-in, 16-mm)$ ridge (fig. 4c); occasionally the corners of bricks are also seen in the marks (fig. 4d). A very few bricks show double pressure marks, diagonal and longitudinal (fig. 4e). The Gault bricks used for the rusticated quoins measure $9\frac{1}{8} \times 4\frac{1}{2} \times 2\frac{1}{2}-2\frac{5}{8}$ in $(232 \times 114 \times 64-67 \text{ mm})$: they show far fewer pressure marks, perhaps because of the harder nature of the raw material used in their manufacture. Where they do occur, however, they also may be diagonal or longitudinal; no double pressure marks

а b С d е

Fig. 4 Rubbings of five red bricks (1863–4) at Christ Church, Luton: (a)–(c) south aisle, (d)–(e) tower; the short lines at the edges help to identify the pressure marks (scale $\frac{1}{2}$)

have been observed. The red bricks in the alterations of 1881 measure $8\frac{5}{8} \times 4\frac{1}{4} \times 2\frac{1}{2}-2\frac{5}{8}$ in (219 × 108 × 64-67 mm). There are fewer pressure marks than in the red bricks of the earlier phase, but once more both diagonal and longitudinal marks occur; again no double pressure marks have been observed.

Although double pressure marks are few, and absent altogether from some of the brick types, diagonal and longitudinal marks are quite frequent and, moreover, occur in approximately equal numbers.¹⁰ The red bricks within the surviving work are of consistent colour and texture, and there can be no serious doubt that those of each phase come from a single brick-yard. It seems clear, therefore, first, that some brickyards at least were hacking their bricks in two different settings, diagonal and parallel, at the same time, and, second, that the diagonal hacking of red bricks was taking place well into the second half of the nineteenth century. This is consonant with other known instances of nineteenth-century diagonal pressure marks, for instance in London, and with some of the documentary evidence.¹¹

Where, occasionally, double pressure marks *do* occur, they may result from premature skintling, whilst the bricks were still too soft. On the other hand, there are so few of them that both marks may be *hack* marks, caused by the bricks being hacked in one way and then, very shortly afterwards, being re-arranged for some reason – possibly because they were at one or other end of a hack with its bricks set parallel and it was considered (by a foreman?) that greater stability would be achieved with these terminal bricks set diagonally.

Conclusion

The conclusion to be drawn from this consideration of the Christ Church bricks is that there is no chronological scheme involving pressure marks which is applicable to the country as a whole. It may or may not be possible to establish such a scheme within a restricted area.¹² But it would be rash to generalise, particularly with regard to using the presence of diagonal pressure marks to provide a *terminus ante quem* for otherwise undated brickwork: after all, as a recent survey of brick manufacture and dating observes, 'the practice of stacking the brick[s] diagonally is still used by some hand-brickmakers today'.¹³ Practices in nineteenth-century yards were probably very varied. Indeed, the Christ Church evidence suggests that, in some cases at least, individual workmen at a single yard were left to hack the bricks in whichever arrangement they chose, without managerial or proprietorial prescription. Much work remains to be done on this topic at a local level. Meanwhile, generalisations on the matter should be avoided – and treated with caution when encountered.

Notes and References

- H. Cobbe, Luton Church: Historical and Descriptive, London: George Bell & Sons, and Bedford: F. Hockliffe, 1899, pp.270-71; for a succinct history of the first hundred years of the church: K.C. Habermehl, The Story of Christ Church, Luton 1856-1956, Bedford: Donald S. Martell, n.d. but 1956. In what follows, cardinal points are used in their liturgical sense, with the altar assumed to be at the east.
- 2. J. Dyer and J. Dony, *The Story of Luton*, 3rd edn, Luton: White Crescent Press, 1975, p.118, where, however, Christ Church is misdated to 1860.
- 3. F. Davis, Luton, Past and Present: its History and Antiquities, Luton: W. Stalker, 1874, p.56.
- 4. Fig. 2 shows the lucarnes in the former spire; these were removed some time before 1908: see photograph in T.G. Hobbs, *Luton and Neighbourhood Illustrated*, privately published, Luton, 1908, unnumbered p.28; *cf.* my fig. 3 and cover illustration: *right*.
- 5. The best account of the building history is in C. Pickford, ed., *Bedfordshire Churches in the Nineteenth Century*, part IV, *Appendices and Index*, Beds. Hist. Rec. Soc., **80**, 2001, pp.914–17 with tabulated data at p.974. I have also used the data, with original plans appended, on the

Incorporated Church Building Society website at http://www.churchplansonline.org: use 'Simple Search' then 'Search by Place' to find 'LUTON, Christ Church'. Both N. Pevsner, *The Buildings of England: Bedfordshire and the County of Huntingdon and Peterborough*, Harmondsworth: Penguin Books, 1968, p.116, and Borough of Luton, *Luton's Heritage: Buildings of Architectural and Historic Interest*, Luton: Luton Borough Council, n.d. but 1993, p.16 oversimplify the building history. Costs were as follows: 1856–7: £2,300 (approximately £3,500 including purchase of the site); c.1857 (rebuilding of bell turret): £50; 1863–4: £1,200; 1881: £2,190; 1903–4: £2,452: Davis, 1874, p.56, Cobbe, 1899, pp.270–72, Pickford, 2001, p.974. There is a photograph of c.1950 showing the low pyramidal spire of 1939 in R. Cook, *Luton: a History & Celebration*, Salisbury: The Francis Frith Collection, 2005, p.99. The structural problems were due to the fact that the site contained infilled brickpits.

- 6. This unrealised project is mentioned in Habermehl, 1956, p.15, Hobbs, 1908, unnumbered p.28, and *The Luton and District Almanack* [sic] and Year Book for 1902, Luton: The Reporter Press Agency, 1901, p.71. A clerestory would, however, have dwarfed the tower; the general structural problems of the church make it extremely doubtful that the tower could have been appropriately heightened.
- 7. 'Dorothy' (viz. B. Chambers), 'Novitates Bedfordienses', Beds. Magazine, 20, 159, Winter 1986, p.294.
- 8. Bath stone is an oolitic limestone which was much valued by nineteenth-century church builders because it could 'be conveyed to almost any part of the country at a small cost: [and because] it is easily worked, and durable when properly selected': [J.M. Neale], A Few Words to Church Builders, Cambridge: Cambridge Camden Society, 1841, p.9, reprinted in facsimile in C. Webster, ed., 'temples ... worthy of His presence': the Early Publications of the Cambridge Camden Society, Reading: Spire Books in association with the Ecclesiological Society, 2003, p.141. In large part, the ease of transport was due to the opening of the Kennett & Avon Canal. The durability of the stone was, as recognised in Neale's phrase 'when properly selected', very variable: A. Clifton-Taylor, The Pattern of English Building, 4th edn, ed. J. Simmons, London and Boston: Faber & Faber, 1987, pp.75–6.
- 9. It is, of course, probable that some other bricks have pressure marks but that these are placed within the thicknesses of the walls and are therefore not visible in the wallfaces.
- 10. One may contrast the red bricks of St Saviour, Russell Street, Luton (1897–8 and 1904–5) by J.T. Micklethwaite (1843–1906), in which just two diagonal pressure marks have been observed amongst numerous longitudinal pressure marks; I have not, of course, inspected *every* brick! This discrepancy in numbers almost certainly reflects the fact that the bricks were hacked in a parallel arrangement but with the bricks at the ends of alternate courses set diagonally in order to provide stability to the hacks. For the building history: Pickford, 2001, pp.933–5.
- D.H. Kennett, 'Pressure Marks on Bricks at Lambeth Palace', BBS Information, 95, November 2004, pp.13–16; T.P. Smith, 'London Stocks: Drying Procedures and Pressure Marks', BBS Information, 97, July 2005, pp.20–23; T.P. Smith, 'Holy Trinity Church, East Hyde, Luton: an Early Work in Brick by Benjamin Ferrey', in prep. for BBS Information; for a more or less contemporary description of hacking procedures see, e.g., E. Dobson, A Rudimentary Treatise on the Manufacture of Bricks and Tiles, London: John Weale, 1850, re-issued, ed. F. Celoria, as J. Ceramic Hist., 5, 1971, vol. 2, pp.25–6.
- 12. See, e.g., E.M. James and E.J. Rose, 'The Norfolk Skintling Survey: Results 1995–2003', *BBS Information*, **93**, February 2004, pp.7–10. For reservations: Smith, 2005, pp.20–23, which also notes that 'skintling marks' is an incorrect term for the relevant features. It is only proper to add, in anticipation of a well directed *Tu quoque*, that in various earlier publications I have myself misused the term 'skintle' and its cognates.
- 13. J.W.P. Campbell and A. Saint, 'The Manufacture and Dating of English Brickwork 1600-1720', Archaeol. J., 159, 2002, p.179; see also Kennett, 2004, pp.13-16, and the whole of the discussion in Smith, 2005, pp.20-23. Even arguing from the presence of longitudinal pressure marks to a late eighteenth-century or subsequent date requires caution, for in some areas at least such pressure marks appear as early as the late *seventeenth* century: T.P. Smith, 'The Church of Saint Benet, Paul's Wharf, City of London, and its Brickwork', *BBS Information*, 79, February 2000, p.16.

FOUR SHORT PIECES

Although I am responsible for the final form of the following short items, all but one, as will be evident, are heavily dependent on the work of others. TPS

Wall Crawlers' Wall Scrawl: the Great Wall of China and the Graffiti Problem

Elsewhere in this issue (pp.8–11, 17–18) brick graffiti are considered and their potential historical value is noted. In some cases, however, they can be a serious problem. A report in *The Guardian* newspaper for 10 February 2006, written by Jonathan Watts and forwarded to me by David Kennett, draws attention to the problem in connexion with the Great Wall of China. Over the last four decades 'heritage officials have failed to prevent graffiti artists from leaving more of a mark on the Great Wall ... than the Mongolian hordes achieved in centuries of attacks'. Their solution, apparently adopted with some reluctance, involves charging visitors to scratch messages of their choice into bricks in a *faux* section of wall near Badaling. The plan aims 'to satisfy visitors' desire to leave their mark, without damaging China's best-known cultural relic'. Whether visitors will, indeed, be satisfied to scratch into bricks in what, after all, is *not* the Great Wall may seem questionable, especially as the charge for doing so is 999 yuan – equivalent to about £70!

A Bit More about Cakemore

In BBS Information, 98, November 2005, pp.14-17, Alan Cox identified a monogram occurring on a blue engineering brick from the former St Pancras (Somers Town) Goods Station in London. I had conjectured that the monogram might be read BBC and stand for B[--which supplied the ironwork for the St Pancras Station train shed, is known to have manufactured blue engineering bricks at some stage in its history (BBS Information, 96, April 2005, St Pancras Issue, p.24). But by comparing the monogram with that in company advertisements. Alan Cox was able to demonstrate that it should in fact be read CBB – significantly, the C is the largest of the letters and surrounds the addorsed Bs – and that it stands for Cakemore Blue-Brick, manufactured by the Cakemore Blue-Brick Company of Rowley Regis, near Dudley, Staffs. The monogram was the company's registered trademark. The company adopted the name from 1887, having previously been known as the Cakemore Brickworks and Colliery Company. By 1892 it had become the South Staffordshire Blue Brick Co. Ltd. Some of the company's advertisements, reproduced by Alan Cox, specifically mention products for railway use: 'Copings for Railway Platforms, Bridges and Tunnels'. A website compiled by Simon Green and Philip Male ('The Lost Railways of Yorkshire': http:// homepage.ntworld.com/dwebdale/newtown%20goods%202.htm) has a small colour photograph (but which can be enlarged) showing buff coloured (semi-engineering?) bricks in a Lancashire & Yorkshire Railway bridge in Paul Lane, Mirfield, West Yorks. The bricks are laid in English Bond. The large bullnose coping bricks to the parapet do not bear the CBB monogram, but some have CAKEMORE stamped into them in bold sanserif capitals. Clearly, as the website compilers state, the bricks 'were made at Cakemore brick works near Rowley Regis'. The change of name in 1892, it should be noted, does not provide a terminus ante quem for such products – as one might at first expect – since the South Staffordshire Blue Brick Company continued to use the Cakemore brand name and the CBB trademark.

Coping with Stamping

Apropos the previous item, it was a common practice for manufacturers of coping bricks to stamp a name or other identifying device into the exposed faces of at least *some* of them, the stamping being quite casual and clearly performed as a separate operation. Some at Wood Street Station, Walthamstow, London E17, for example, are stamped **GEORGE WOOD** /

ALBION WORKS / WEST BROMWICH, the first and third lines curved to form a *vesica piscis* (almond) shape, whilst some at the corner of Crawley Green Road and Crescent Road, Luton have the words HAUNCHWOOD BRICK AND TILE COMPANY. LIMITED. inside the perimeter of a rectangle with curved corners and surrounding the placename NUNEATON. Presumably the stamps served as a kind of advertisement for the manufacturers. For the researcher they provide a useful tool for establishing the sources of such products: in this connexion they would be worth recording in members' own localities.

Wavy Walls, Vermiculate Vaults: a Note on Eladio Dieste

In a valuable review article in BBS Information, 99, February 2006, pp.25-7, James Campbell considered a collection of essays edited by Prof. Stanford Anderson, Eladio Dieste: Innovation in Structural Art, New York: Princeton University Press, 2004. Eladio Dieste (1917-2000) was a Uruguayan who, although an engineer who eschewed the title architect, nevertheless designed numerous buildings - bus stations, churches, gymnasia, and market halls, as well as more banausic grain-silos - both in his native country and in neighbouring Brazil, using his own system of brick wall and vault construction. The term 'Structural Art' in the essay collection's title well expresses his achievement. James Campbell's article notes that Dieste 'is only now beginning to gain the recognition he deserves' (p.25) and also points out (p.27, n.4, added by David Kennett) that his name does not appear in the indexes of a number of standard histories of twentieth-century architecture. Nor, one may add, does it appear in those of C. Jencks, Modern Movements in Architecture, 2nd edn, London: Penguin Books, 1985, or D. Ghirado, Architecture after Modernism, London: Thames & Hudson, 1996. More seriously, perhaps, Dieste receives no mention in a German Lexicon, edited by V.M. Lampugnani, published in English in 1986 and reissued (updated) as The Thames & Hudson Dictionary of 20th-Century Architecture, London: Thames & Hudson, 1996.

But one history of twentieth-century architecture *does* include a warm appreciation of Dieste: William J.R. Curtis, *Modern Architecture since 1900*, 3rd edn, London: Phaidon, 1996, p.575 has half a page of text on him, including quotations from his own writings. Curtis refers to Dieste's 'structural systems in [bricks] ... laminated together and combined as thin shell vaults, as wide-curved roof spans or as sinuous walls', constructional solutions which 'mitigated [*sic*: for *obviated*, surely?] the need for ribs and beams, and were much cheaper to construct than reinforced concrete'. The text is illustrated by a colour photograph of the interior of one of Dieste's most striking creations, the Christo Obrero (Christ the Worker) Church in the small village of Atlántida, Uruguay (1958–60), which shows his distinctive use of red bricks, the telling appearance of flowing walls and vaults, and the evocatively numinous effect of light in the building.

Entering "Eladio Dieste" into the internet, incidentally, produces numerous results, including the useful http://www.rau.edu.uy/uruguay/cultura/dieste.htm (a biographical résumé, in Spanish) and http://www.architectureweek.com/2004/0929/culture_1-1.html (by Prof. Stanford Anderson, excerpted with permission from the collection of essays reviewed by James Campbell). Both have interior photographs of the Atlántida church. There is a good exterior photograph showing the sinuous walls and the free-standing tower at http://www.puc.cl/ faba/ARQUITECTURA/FOTOS/FULL/IGLESIAS/Atlantid/at.01.jpg.

With its dual-curvature shell (*càscara de doble curvatura*), the Christo Obrero church, and others of Dieste's buildings, are, so I believe, a more convincing application of engineering techniques to architecture than, say, the self-conscious display of irrelevantly colourcoded pipes on works by Lord Rogers – like, in a phrase of Le Corbusier's, 'men carrying their intestines outside their bodies' – or the technological onanism of two of Lord Foster's London buildings, grossly ill-sited but oh so appropriately shaped: the phallic Swiss Re headquarters and the testicular mayoral headquarters, works which betray, in the words of the philosopher A.C. Grayling, 'an architect showing off, labouring gracelessly to seem original and different, and succeeding only in being disruptive'.

Eladio Dieste exhibited no such *chutzpah*, and his personal modesty is refreshing in a world of jet-setting, superstar, Sunday-supplement architects, their wings seemingly unscorched even by their more Daedalian flights – an art gallery in which it proved difficult to display works of art, for example, or a footbridge that wobbled when people walked on it.

NOT SO MUCH A BOOK REVIEW, MORE A WORD OF WARNING

Norena Shopland, *Archaeological Finds: a Guide to Identification* 248 pages, numerous unnumbered black and white illustrations Stroud, Gloucs.: Tempus, 2005; ISBN 0 7524 3132 3; price £17-99, paperback

The study of finds from archaeological excavations has, unavoidably, become a series of specialisms, and it is doubtful whether, today, any one person is capable of providing an introductory guide covering the entire range. Yet it is precisely this that is attempted by Norena Shopland, who, so the back cover of the book informs us, 'completed her Masters [*sic*] degree in Artefact Studies on an English Heritage Scholarship'.

The book includes, at pp.135-45, a section on building materials, which might be expected to be of interest to readers of BBS Information. An attempt at a full review of this section was abandoned when the litany of errors and omissions threatened to become longer than the text itself and when it became clear that it was almost impossible to comment on that text without sounding relentlessly brutal. Since, however, the contribution is intended for those coming anew to the study, it seems desirable, however uncharitable the exercise, to draw attention to its inadequacies in a series of brief comments. First, the material considered is restricted to *ceramic* building materials: timber, stone, mud brick, daub, wall plaster, and other non-ceramic materials simply go unnoticed. Second, even amongst ceramic materials whole categories are omitted: there is nothing at all, for example, on post-medieval roofing tiles, floor tiles, wall tiles, mathematical tiles, architectural terracottas, roof finials, or chimney pots. Third, within the groups of ceramic materials which are included there is a seemingly arbitrary selection of which individual forms and/or features do or do not get in: about half of Roman ceramic building material forms, for example, are considered, the rest ignored. (And why, one wonders, is imbrix used at pp.135-6, as both singular and plural, instead of the correct imbrex/imbrices?) Fourth, this often confusingly organised text is a mishmash of misunderstood material: at p.135, for example, it is stated that a 'normal roof' covered with tegulae and imbrices 'will result in a collection of approximately 2:1 tegula to imbrix', which is just wrong: on a complete roof, i = t - c, where i = the number of *imbrices*, t = the number of *tegulae*, and c = the number of tile courses, though with *i* increased slightly if imbrices were also used as ridge tiles; and the author's misapprehension concerning nib tiles is well nigh incredible: 'Another method [of fixing plain tiles, we are told at p.140] was for the lath to have projecting nibs of clay to fit the nail holes'! Fifth, the text is limited to a consideration of (some) building material forms and features: fabric types, as an aid to dating and even, in favourable circumstances, to establishing the provenance of materials, are not considered. Finally, the text, such as it is, is marred by several uncorrected slips: at p.144, for instance, we are told, in what in any case involves a somewhat rash generalisation, that as a result of the Brick Tax of 1784 the size of bricks was 'increased to $234 \times 114 \times 114$ mm'!

At pp.237–9 the bibliography includes thirty-three publications concerning building materials: it is a pity that the author seems to have learned so little from them.

It is, perhaps, superfluous to add that this quite highly priced 'Guide to Identification' is *not* recommended, at least so far as its treatment of building materials is concerned. TERENCE PAUL SMITH

BRITISH BRICK SOCIETY MEETINGS IN 2006

Saturday 30 September 2006 London Autumn Meeting London north of the City.

A walk beginning at Angel and then looking at buildings south of this: the new Lilian Baylis Theatre, the buildings of the former Metropolitan Water Board, the buildings of City University on Northampton Square, the former Finsbury Town Hall, buildings on Exmouth Market including the church of the Holy Redeemer. In the afternoon we hope to see the Finsbury Health Centre, buildings on Clerkenwell Green including St James' church, the former Holborn Town Hall before going east to Old Street and the Leysian Mission, Moorfields Eye Hospital and the Wesley Chapel.

Further details of the London Autumn Meeting 2006 are included in this mailing.

The British Brick Society is always looking for new ideas for future meetings. Suggestions of brickworks are particularly welcome. Suggestions please to James Campbell, Michael Oliver or David Kennett.

The progamme of meetings for 2007 is in the course of being arranged.