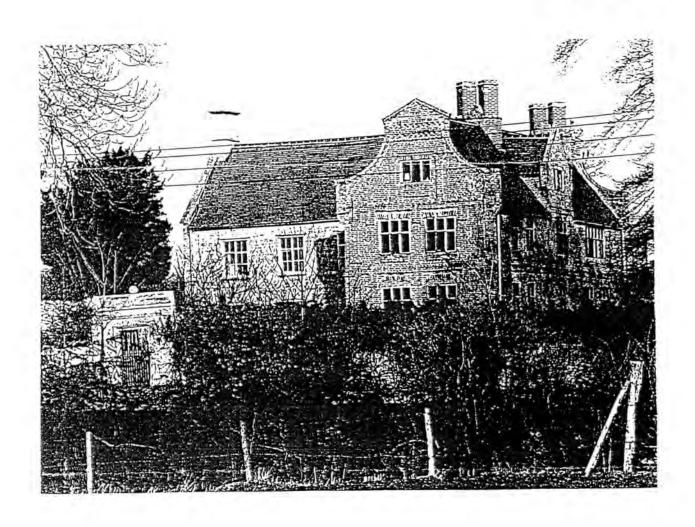
# **INFORMATION 75**

**OCTOBER 1998** 



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### Cover Illustration:

Aslackby Manor House, Lincolnshire.

The east wing is seventeenth-century and in English bond. It was the afternoon part of the society's Spring Meeting in 1998, courtesy of Alan Baxter. (photograph: Alan Baxter)

### Editorial:

### Coal and Brick - a vanishing landscape

One of the articles in this issue of BBS Information records the brick exhibits in the Lancashire Mining Museum. As the text of the article makes clear, bricks have a close relationship with coal mining.

This relationship was first made clear in the pages of BBS Information as long ago as issue 5, November 1974. One of the first local meetings of the nascent British Brick Society was a symposium on 'Brickmaking in South Yorkshire' held at Doncaster Museum and Art Gallery on Saturday 19 October 1974. The society's then honourary secretary, Anne Pennington-George, a geologist by training, spoke on the geology of South Yorkshire and its effect on brickmaking. Her talk demonstrated the relationship between coal measures and brick earths. This is a part of England where the brick industry is comparatively late in its introduction. The first records of a brick industry date only to 1698 although there are some early-seventeenth-century brick buildings in the vicinity. Even in the mid nineteenth century stone was the customary building material of the south Yorkshire coalfields.

Given the close relationship between coal mines and bricks, both in their use in the mines and manufacture by mining companies, it seems appropriate therefore to draw attention to the large number of brick buildings of the 1930s put up at coal mines from Kent to Northumberland which with the demise of the coal industry are themselves being demolished.

Coal mining is a hazardous and dirty job. Many members will be familiar with photographs of the miner in the tin bath at home in front of the open coal fire with only a curtain for privacy. To alleviate problems of miners coming off shift tired, wet and hot from work and having to walk home on a cold day, baths at the pitheads themselves began to be provided from 1911. But only six were built in the next ten years.

After the Great War, the Miners' Welfare Committee appointed architects to design pithead baths. John Henry Forshaw (1895-1973) became their Chief Architect in 1926 and remained until 1939. Towards the end of his service he twice spoke to the Royal Institute of British Architects about 'The Architectural Work of the Miners' Welfare Committee': the title was the same on both occasions. Transcripts which include the discussions afterwards appear *Journal RIBA*, 7 September 1935, pp.1077-1090, and *Journal RIBA*, 7 March 1938, pp.421-438. He was not the only architect employed: others include J.W. Dudding, F.G. Frizzell, G.C. Kemp, O.H. Parry, A.J. Saise, and W.A. Woodland.

Forshaw's best-known pithead baths are those at Treharris, Glamorgan, of 1932 where a traditional elevation with a gabled roof was used. Better known are those with influences from the style of Willem Martins Dudok of the Netherlands: asymmetric and austerely cubic in style. Architecturally, they share with Dudok's approach - notably in the Town Hall at Hilversum (1928-31) - the device of letting the function of the individual units determine their size and precise cubical form; a tower is provided to draw these component elements together and to avoid the more sprawling effects at such juxtaposition of disparate units. Brick in a variety of the less common bonds was ideally suited to the concepts involved.

Bettshanger Colliery, Northbourne, Kent, is where the best known of the pure cubic form of pithead baths was built in brick; it was opened in 1934 and designed by G.C. Kemp, who also designed baths in south Lancashire and Yorkshire West Riding.

In County Durham and Northumberland, F.G. Frizzell is the architect of the few which survived as recently as 1980. The baths at Elemore, Co. Durham, constructed in 1933, were in red brick with varied bonding and prominent string courses; the water tower was stepped and vertically incised. It was demolished in 1980. A variety of bonds including stack bonding

characterised the red brick of the baths at Blackhall, Co. Durham, of 1939. In contrast the sole survivor in 1992 of the twelve built in Northumberland, that at Lynemouth Colliery was in white brick. It had a great tower with a curved glass projection featuring a spiral staircase.

Thirty had been built at collieries in County Durham and at least thirty-two in Yorkshire West Riding. Seven were built in Nottinghamshire, all except one designed by A.J. Saise. Others were constructed at collieries in Kent, Lancashire, Scotland and Staffordshire. In all 361 schemes were completed before 1945, giving bathing facilities to a third of all coal miners.

There is little for which these buildings can be adapted. Often the location is against them, away from houses. They tended to lack a swimming pool which would encourage a new community use. They were built for a specific purpose: to get men clean after a day's work. It is probably inevitable that with the demise in the 1990s of the coal industry, still in the 1930s the largest industry in Britain, these buildings will have no future. But as examples of the inventive use of brick they should be recorded.

Colliery baths and other buildings associated with the coal industry are not the only loss of 1930s brick buildings which have occurred. Soon after the writer went to Salford, in January 1994, he was asked to visit St Christopher's church, Withington, one of the suburbs of south Manchester. Bernard Miller's design of 1934 was one of the more remarkable churches of the decade. Nave and chancel were of equal length and separated by a high block forming a square tower to the (liturgical) north and an apsidal baptistry with long thin windows to the (liturgical) south. The building was aligned north-south with the altar at the northern end. The church building lasted less than sixty years and when demolished was structurally sound. It also cost £60,000 to demolish.

Such structural soundness is often true of large houses in Surrey, parts of Essex and north Oxfordshire whose demolition is now being permitted by planning authorities on condition that another large house is built on the site. A case, it would seem, of the successful of one generation not wanting to purchase a perfectly viable house which is a legacy of grandfather's time.

I am indebted to Adrian Corder-Birch for notice of the Essex Book Awards for 1996/97 which took place at Ingatestone Hall, Essex on 24 March 1998. First prize in the 'Best Individually Published Book' was awarded to Brick in Essex from the Roman Conquest to the Reformation by Pat Ryan.

The British Brick Society offers its hearty congratulations to Mrs Ryan on her achievement in producing the book and in gaining the award. The book is available from Mrs P. Ryan at 60 Maldon Road, Danbury, Chelmsford, Essex CM3 4QL.

The society has been active in the Spring and Summer of 1998. This issue of *BBS Information* contains reports on the Spring Meeting in Lincolnshire and the February 1999 issue will feature reports on the walk round Cambridge after the Annual General Meeting, the July Meeting in Essex and the Autumn Meeting in Dorset.

The editor has happy memories of the July Meeting. The brick part of the day began when glancing up from *The Manchester Guardian* to spot two magnificent dragons glaring down at the street from adjacent houses on Woodstock Road, Oxford. Doubtless, he will renew his acquaintance with these en route to the Autumn Meeting in the Old Town of Poole.

DAVID H. KENNETT Editor, BBS Information, Shipston-on-Stour, 27 January 1998 and 2 August 1998

#### BRICK IN MUSEUMS 2

### The Lancashire Mining Museum, Buile Hill, Salford

David H. Kennett

Many museums are housed in buildings which are themselves of considerable interest. The four museums of Salford are no exception. The Salford City Museum and Art Gallery began as the country's first free public library in June 1849 in a large brick house known as Lark Hill. The first purpose-built wing was constructed in in 1852 to designs by Travis and Magnall of Manchester who in 1857 provided a parallel north wing. A west wing, funds for which were given by E.R. Langworthy, was built in 1878 and an east wing replaced the house in 1936. All three new wings are in red brick, closely matching the first. In contrast a lift tower to the east wing is in a much redder red brick. This was built c. 1992.

On the opposite side of The Crescent is the Viewpoint Gallery, used for photographic exhibitions, a fitting use for the engine sheds of the Central Fire Station of 1902. This is red brick with much orange-brown terracotta around the former doorways. Ordsall Hall is a fifteenth-century timber-framed house complete with cruck blades and spere truss. The south front is an 1899 refurbishment in red brick in header bond with red terracotta used for the details of the fenestration. The architect of the 1899 work was Alfred Darbyshire.

The Lancashire Mining Museum occupies Buile Hill, a house built in 1825-27 for Sir Charles Potter (1774-1845) and designed by Sir Charles Barry; a contemporary building of his is the Royal Institution, Manchester, now the Manchester City Art Gallery, designed in 1824. Both use a classical vocabulary. But whereas in the city centre ashlar is used for the exterior of the Royal Institution, in the private park brick covered with stucco is employed. Barry's house for Sir Thomas was of two storeys, with a cellar. On the south side there was a sunken garden: see the photograph of c.1865 which is reproduced as plate 2 of G. Preece, Salford Museum of Mining. The house is there shown as it was before Edward Walters added a third storey to the main body of the house, a porte-cochere to the entrance on the north front, and a ballroom at the north-west corner. His client was Thomas Bailey Potter (1817-1898), the youngest son of Sir Thomas. The additions to Buile Hill are a decade later than Walters' best-known building, the Free Trade Hall, Manchester.

Sir Thomas Potter became the first Mayor of Manchester in 1838 at a time when residence in the town was not a requirement of the man who held the temporary office of its first citizen; business interests sufficed. Potter was later prominent in the Anti-Corn Law League. Earlier in his career, the leading textile merchant of the adjacent city, he had been among those who financed the launch of *The Manchester Guardian*. His eldest son, Sir John Potter (1815-1858), who lived in the house for ten years from 1845, was Mayor of Manchester 1848-51 and was knighted when Queen Victoria came to Salford and Manchester in 1851.

The third member of the Potter family to occupy the house was T.B. Potter who was M.P. for Rochdale for thirty years from 1865. In 1877, he sold the house to John Marshland Bennett (1817-1889), a timber amd stone merchant of Ardwick and Mayor of Manchester 1863-65. His widow lived there for more than a decade after his death but in 1902 the house was sold to the County Borough of Salford. The grounds, covering 80 acres, became a public park, part of Salford's green lung.

The house opened as a natural history museum in 1906, but in 1959 an exhibit arranged as a coal pit was built in the cellar. In the early 1970s, the ground floor of the house was

coverted into an exhibit showing a drift mine and pit yard of the 1930s.

The first floor is reached by a rather fine Victorian staircase with wrought iron railings and banister. In the late 1970s, the first floor was re-organised to display the history, technology, and social relations of the coal industry in the County Palatine. Brick and its associations with the coalfield is a recurrent theme in the exhibits of the history and social relations of Lancashire coalmining.

The sequence of exhibits begins with a geological explanation of the formation of coal, of how 40 metres of peat deposits through compression become a two-metre seam of coal, and how the forces which shape the Earth distort the seams. Within this exhibit is a photograph taken in May 1890 of Bent Mine, at Oldham Edge, being quarried for brick earth. The resultant bricks, if not used by the mining company itself, would have found a ready market in mill construction or house building in the town. Brick earth as a raw material and coal as a fuel gave the collieries a dual resource for brickmaking. Bricks are much used in collieries.

As early as 1780, when the horse gin of Rothwell Haigh Colliery, near Wakefield, Yorks W.R., was first used, the mine shaft was brick-lined. The bricks are wedge-shaped; the top of such a shaft is symbollically laid out in the reconstructed gin, which was last used in 1920. Adjacent is an enlargement of the engraving of the horse gin at Broseley Pit, made c. 1788. On the engraving is a brick chimney and a small brick building.

Earlier in the eighteenth century, also in Shropshire, the furnaces of Abraham Darby at Coalbrookdale where coke was first used in 1709 were, of course, built of brick. The Lancashire Mining Museum has a photograph of these. It is worth walking across the city to Salford Art Gallery to view 'Workmen and Workwomen' by Philip Homan Mill, of c.1870 which depicts the interior of a salt works, which has brick flooring and brick fronts to the furnaces, showing many repairs.

Coal was the motive for the Duke of Bridgewater to invest in building a canal from Worsley to Manchester in 1759: the famous Bridgewater Canal. The canal was brick-lined. The duke's canal even had underground tunnels going right into the mines; these too were brick-lined. Also built to facilitate the transport of coal into Manchester was the Manchester, Bolton and Bury Canal of 1792, which appears stone-lined but has a brick inner skin to the fine stonework, which can be seen in the disused canal beside the railway going north from Salford Crescent Station to Bolton. Another painting in the City of Salford Art Gallery, a panorama of 'Manchester and Salford in 1859' by John Raphael Isaac, shows the canal and the canal basin on Upper Wharf Street behind the fine c. 1810 brick houses of The Crescent.

The manufacture of bricks by collieries is represented in the Lancashire Mining Museum by a collection of bricks. Seventeen are displayed with different names in the frog and showing quite different textures.

Bricks were used in pit shafts, as noted, and also in the buildings at the pit head. Mine owners built small settlements to house their workers. Two, west of Salford, are analysed in detail in museum exhibits. Gin Pit and New Manchester are both at Tyldesley. The former was owned by the Astley and Tyldesley Coal and Salt Company and the latter by the Duke of Bridgewater's Estates. Gin Pit dates to the 1860s and 1870s, with houses of the 1870s and 1890s. The houses at New Manchester were rebuilt by the Bridgewater Estates in the 1890s. Both communities, comprised initially of miners from outside Lancashire, are distant from the village of Tyldesley. The village had cotton mills to add to its economic base.

While houses and mine buildings were of carboniferous brick, the miners' institutions could commission prestige structures. The headquarters of the Lancashire and Cheshire Miners' Federation at Bolton is one such. It is in red brick, Ruabon rather than Accrington. Following a competition restricted to architects connected with Bolton, it was designed by

A.J. Hope of Bradshaw Gass and Hope in 1912 and a wash drawing was exhibited at the Royal Academy in the following year. Members who came to the society's first Northern Spring Meeting at Bolton in 1994 saw this: the building is now used as the premises of the Bolton and Bury Chamber of Commerce. Another prestige project commissioned by the Lancashire and Cheshire Miners' Federation from the same firm of architects is the Miners' Convalescent Home, Blackpool, opened in 1926. Also in red brick, this really is a very fine building on Blackpool seafront, somewhat north of where the lights end.

Recently secured from possible demolition is the Miners' Rescue Station, Boothstown, opened in 1933, where two full-time resue teams were kept on stand-by for those disasters one hopes will never happen. There is a simple headstone beyond the east end of St Augustine's, Pendlebury. The Clifton Hall disaster of 18 June 1885 claimed 178 lives. Like L.S. Lowry's painting of 1919, 'The Pit Disaster', in Salford Art Gallery, it is a salutory reminder that power for homes and industry has sometimes been won at the cost of human lives.

Like most museums, the Lancashire Mining Museum includes a gallery devoted to temporary exhibitions. These are staged in the former ballroom of the house. Between October 1994 and January 1995, the exhibit 'Opencast recovers the Past' showed photographs and remains fropm the cleaning up of eighteenth-century mining operations at St Helens. These were dicovered as a bonus in the clear up of deposits of cyanide, arsenical compounds, hydrogen suphide, and copper sulphate dumped above abandoned mines.

More than one brick shaft was found and recorded by the site engineer, Frank Lobel. These shafts were a single brick thick with the bricks laid directly against the surrounding strata. There were no backing structures. About every 10 feet (3 metres) was an oak curbing ring. These rings of four to six sections were used to keep the brickwork on a foundation. A complete one was exhibited and is retained for the collections of the Lancashire Mining Museum. It is thought to date to c. 1740. It supported a shaft of about 6 feet (1.8 metres) diameter. When seen in section in colour photographs of the shafts, the whole looks almost surreal in its suspended state: the seams of coal were not lined.

The Lancashire Mining Museum is open weekdays from 10.00 to 16.30 but is closed between 12.30 and 13.30. It is also open Sunday afternoons, 14.00 to 17.00, but is closed on Saturdays. If members wish to view the exhibits on the first floor, it is worth checking in advance that these are open as when the museum is short-staffed these galleries are closed to visitors. The telephone number is 0161-736-1832.

#### Further Information

- N. Dennis, F. Henriques, C. Slaughter, Coal is Our Life An analysis of a Yorkshire mining community, London: Tavistock Publications, 2nd edition, 1969; 1st ed. London: Eyre and Spottiswoode, 1956.
- G. Preece, Coalmining a handbook to the History of Coalmining Gallery, Salford Museum of Mining, Salford: City of Salford Cultural Services, 1981. This has a select bibliography.
- G. Preece, Salford Museum of Mining, Salford: City of Salford Cultural Services, 1978.

## BRICKMAKING TERMS A list of Sources

Roger Kennell

#### INTRODUCTION

I was most interested in Mr Crute's item on 'Brickmaking Terms: a collated list mostly from south-east England' which appeared in *BBS Information*, 72, October 1997, and wish to offer some additional terms. These are given in the Appendix below.

My other purpose is to provide a list of potential sources. A source of brickmaking terms is from former books relating to brickwork and building construction. An initial listing of such books is given below together with notes on each.

Members may wish to record further examples to provide a resource of such information.

#### BRICKWORK: SOME BOOKS AND CHAPTERS IN BOOKS

Prof. Henry Adams, Building Construction, c. 1920s,

(London: The Waverley Book Company, n/d).

Notes: Cassell's Building Construction. Brickwork is well represented in a book with 2,300 engravings and 590 pages. Includes a chapter on 'Bricks and Brickmaking'.

[First or earlier edition, 1906; see BBS Information, 74, June 1998, 13 notes 32 and 34, the latter with notes on the author, DHK]

John Parnall Allen, Practical Building Construction, 1924,

(London: British Books, Ludgate Hill).

Notes: Sixth edition, 1924. The first chapter is titled 'Bricks and Their Composition'.

John Black (Editor), Bricklaying, c. 1900.

(London: John Dicks, 313 The Strand, n/d)

Notes: Believed to be turn of this century, i.e. c.1900/1910.

Carpenter & Builder Technical Series No. 1, costing 6d. A small linen covered booklet, the first chapter is good for descriptions of classes, and kinds of bricks. The preface states: 'The selection of Bricklaying as a subject for the first in a series of practical handbooks will be admitted to be a fitting one. Very little information in a collected form exists bearing upon this ancient craft'. The line illustrations are rather poor.

S.C. Brees, Illustrated Glossary of Practical Architecture & Civil Engineering, 1853,

(London: L.A. Lewis, Fleet Street).

Notes: Brickmaking included.

Martin S. Briggs, A Short History of the Building Crafts, 1925,

(Oxford: Clarendon Press).

Notes: One chapter is devoted to brickwork, and has some useful early reference to the use of brick.

R. Scott Burn, Building Construction, 1876,

(London: William Collins, Sons & Co.).

Notes: Sub-titled 'Showing the Employment of Brickwork and Masonry in the Practical Construction of Buildings'. Contains only a small section of brick materials.

Austin T. Byrne, Inspection of the Materials and Workmanship Employed in Construction,

#### 1916,

(Boston MA: John Wiley & Sons).

Notes: First published in 1892. Contains a section titled 'Artificial Stones - Brick'. Initially written for use in North America.

### T. Corkhill (Editor), Brickwork,

(London: Sir Isaac Pitman & Sons, 1945),

Notes: This is volume 1 of Brickwork, Concrete and Masonry. This book was specially published for use by H.M. Forces and was not for re-sale. Section 1 by R.V. Broughton on 'Materials - Brickwork' is very good for varieties, clays, preparation, and the brickmaking process. Well illustrated.

### W. Frost, The Modern Bricklayer, 1930s,

(London: Caxton, n/d).

Notes: In three volumes. Chapter one is titled 'Bricks and Their Varieties'. A well-known pre-war publication for apprentice bricklayers.

### Richard Greenhalgh, Modern Building Construction,

(London: New Era, n/d).

Notes: In three volumes. Illustrated section on bricks and mortar.

### Richard Greenhalgh (Editor), Building Educator, 1927,

(London: Sir Isaac Pitman).

Notes: In three volumes. Contains brickmaking in the first volume.

### Adam Hammond, Brick-cutting and Setting, 1903,

(London: Crosby, Lockwood and Sons, Ludgate Hill).

Notes: Fourth edition of Weale's Scientific and Technical series. Contains a brief reference to the quality of bricks for rubbed and gauged brickwork. A companion volume is Brick and Tile Making, by E. Dobson, which cost 6 shillings.

### Thomas Kelly (publisher), Builders Director, 1823,

(London: Thomas Kelly, Paternoster Row).

Notes: There is reference to brick types within the chapter on 'Bricklaying'. A further chapter lists an explanation of terms and tools used for bricklaying and plastering. Has a page of engravings of tools.

### R.H. Lipscombe, Hints to Young Land Agents, 1891,

(London: Land Agests' Record Office, 73 Fleet Street.

Notes: Contains a short chapter on 'Tileries and Brickyards'. A most interesting observation on the value of a brickyard and its operation on an estate. The chapter concludes, thus: "I have never had the luck to discover a gold mine for my chiefs. The nearest approach to one was a bed of clay, which had been lying untapped close to a growing town, and from a five acre marsh let at eleven pounds a year I extracted one thousand eight hundred pound royalty, which, in that case, was 3s. 9d. per tousand bricks".

### C.F. Mitchell, Building Construction, 1903,

(London: B.T. Batsford)

Notes: Standard work with many reprints developing into a series from the original book. It was still issued as a single volume as recently as 1960.

[For details on the author see BBS Information, 74, June 1998, 13 note 33, DHK]

## Harry Bryant Newbold, revised by Edgar Lucas, Modern Practical Construction, 1954, (London: Caxton).

Notes: First published in 1934 and in four volumes. Volume 2, chapter 1 is 'Bricks and Brickwork', and has a good description, and a table of brick types. Good illustrations of purpose-made bricks.

IFirst edition had the title, House and Cottage Construction; Volume II, chapter 3 is 'Bricks and Brickwork' with

chapter 4 devoted to 'Ornamental and Gauged Brickwork'. A set of the first edition was seen in a bookshop in Chipping Campden in March 1998 for £50-00. Newbold was sometime editor of *The National Builder*. DHK]

### G. Gordon Samson, Every Man His Own Builder, 1920,

(London: Crosby, Lockwood and Son).

Notes: Originally written for a foreign market but adapted for use in Great Britain. This is a third revised edition. Overprinted in red are notes relating to pre-war (WW I) prices used and that, 'Since 1914 prices have continually fluctuated, but in general the tendency has always been, unfortunately, to increase'.

Chapter IX, 'How to Make Bricks', is unexpectedly good and illustrated description on traditional brickmaking and clamp burning methods.

### Alfred B. Searle, Modern Brickmaking, 1931,

(London: Ernest Benn Ltd.).

Notes: Third edition, revised and enlarged, 1931. First published 1911. With 372 illustrations. 500 pages and includes illustrated advertisments for brickmaking machinery.

### Alfred B. Searle, The Clayworkers Hand-Book, 1953,

(London: Charles Griffin & Co).

Notes: This is the fifth edition, second impression of a book first pulished in 1906. This book of 360 pages contains and interesting appendix of facts anso tables. This appendix also contains a useful list of standard books and journals dealing with clayworking. Included in this extensive list is the title Sixty Years a Brickmaker by J.W. Crary, n/d and published in Berlin.

### Robert Stuart, A Dictionary of Architecture, mid 19th century,

(London: Jones & Co., Finsbury Square, n/d).

Notes: Seems to be mid 19th century. In three volumes and contains some interesting facts on brick and the bricklayer.

### F. Walker, Brickwork, A Practical Manual, 1935,

(London: The Technical Press, Ludgate Hill).

Notes: A small book in its tenth edition. Contains a small section on bricks and the characteristics of good bricks.

#### No Author, Notes on Building Construction, 1879,

(London: Rivingtons).

Notes: In three volumes. The books are arranged to meet the syllabus of the Science and Art Department of the Committee of Council on Education, South Kensington.

Part Three is 'Materials' and contains sections of brick earths, brickmaking, and brick burning.

### No Author, Where to Buy Everything for Building Construction and Decoration, 1927,

(London: S. Davis & Co., 1927 edition).

Notes: Extensive lists of major brick manufacturers, together with addresses and telephone numbers. The list is divided into brick types: i.e. facings, hollow, flettons, glazed, pavors, etc.

#### APPENDIX:

#### SOME ADDITIONAL BRICKMAKING TERMS

Banana Bricks Bricklayers' term for brick slightly concave or convex in its length. This term is of post World War II origin.

Brindled Stripped effect on surface caused during firing when there are gaps between adjacent bricks, and to those which are touching. Alternative term for Kiss Marks.

Chuffs Additionally used to describe bricks from a clamp recently opened, and on to which rain has fallen causing rapid cooling and thus producing cracks in exposed bricks. (see BBS Inf. 72, Oct 1997, 9, under 'Shuff' for definition as unsound brick of low strength).

Kell Suffolk dialect term for a brick kiln. The writer heard this term used recently by an elderly resident when describing the former site of the Hadleigh, Suffolk, brickworks.

Grizzle An underburnt brick, usually from the exterior area of the kiln or clamp. Other terms for this type of brick are Place or Samuels: the latter word can also be spelt as Sammels, Samels or Salmons. This last variation of the term reflects the light pink colour of these under burnt bricks.

Gaults White bricks made from clay with sufficent chalk to flux the mass. They appear with a pink tinge when the bruning is defective.

Soaps An alternative name for a Queen Closer. This term might apply to a brick moulded to the size of a brick divided down its length.

Suffolk Whites A clay similar to Gault clay, with a large proportion of sand, and producing a brick which will cut well, and then hardens in the course of time.

### NEWS FROM MEMBERS

### VALUE ENGINEERING IN TUDOR CHIMNEY STACKS

I have admired Tudor chimney stacks for many years but only an illustration to an article in Chartered Surveyor Magazine, March 1998, allowed me to examine them more closely. The article, 'How to ensure conservation through good maintenance' by Nigel Dann and Derek Worthing, contrasts the attitude to conservation in the Netherlands with that pursued by English Heritage, illustrated by a photograph of the roof and chimney stacks of Hampton Court Palace; not stated is whether these are original or restoration copies. Presumably they are built of "rubbers". A particular point is that the shafts appear, although of quite diverse designs, to be constructed from only four patterns of bricks. The same economy is visible in the plinths and cappings. "Value Engineering" is obviously not such a modern technique as some would wish us to think.

### JOHN CONSTABLE

### A DORKING DRAGON

Following the review of 'Dragons in Surrey', in BBS Information 73, I was surprised to find an absence of dragons in Dorking, where my wife grew up. She told me there is a dragon on the building which we identified as no 53 South Street (TQ 164491). The premises are currently occupied by Screen Video Rentals.

IAN CARUANA

#### BOOK REVIEW

Brick in Essex from the Roman Conquest to the Reformation
By Pat Ryan
Chelmsford, Essex: Pat Ryan, 1996, ISBN 0 9529039 0 3

vi + 160 pages. 24 plates, 7 figures, 8 maps Price £15-00 (paperback); postage extra

Available from Mrs P. Ryan, Danbury, Chelmsford, Essex CM3 4QL

Essex is a surprisingly large county. From the environs of east London to the Stour estuary is more than half the two-hour train journey from London to Norwich: the Great Eastern Railway built its track beside the road the Romans created for the same route. The rail or the road is all that most people see of the county; they do not explore its crannies from Audley End in the north-west to Southend-on-Sea in the south-east of the eighth largest county in England.

Our member, Mrs Pat Ryan has done just that: her first two maps show the evidence by parish for Roman brick and tile and the re-use in medieval churches of Roman brick and the data for no evidence shows the meticulousness and depth of her survey.

One strength of the book lies in the marshalling of the evidence for the use of brick. A second is how that evidence is presented: appendices and maps supplement a generous text. A third is the splendid colour photographs which bring out brick colour and in some cases even the brick texture leaps out.

The chapters cover both ecclesiastical and secular uses of the material. The book's consideration of brick in Essex churches was reviewed in *BBS Information*, 71, June 1997, and comments offered there bear repetition.

As in adjacent Suffolk, brick is a major building material for churches in medieval Essex. It can be re-used Roman brick and tile; the details of use as quoins, dressings and walling, based on a survey of 391 churches are given in Appendix 2. Of these, 107 are rendered or otherwise not possible to survey and 49 have no Roman brick in the fabric. In Essex, 234 churches include re-used Roman brick in their fabric. Splendid colour photographs illustrate various churches with Roman brick in Colchester but the county has many isolated churches with re-used Roman brick.

The best-known medieval brickwork in Essex is Coggeshall Abbey. The church was built between 1141 and 1167, with the outside chapel, the *capella-extra-portas*, built in about 1223. The brick is geologically distinctive and individual bricks were often made as 'specials': a figure illustrates twenty-three known shapes. At the abbey, domestic buildings, also of brick, date to about 1190 and later. Coggeshall bricks also occur in churches within a twelve-mile radius of the abbey: sales provided income.

Also ecclesiastical in origin are Waltham Abbey great bricks, distinct in both texture and style, and often in size, from those originating at Coggeshall. The earliest date for these is 1177 but others could be a quarter of century later. Bricks have been found, possibly re-used, in the Abbey Gateway of 1369.

An interesting question involves finding linkages, if any, between the twelfth- and earlythirteenth-century uses and the better known late medieval brick in churches. Some clues for this are given but these appear as isolated examples rather than a continuous development.

Accompanying chapters six and eight, on 'Brick Buildings of the Fifteenth Century' and 'Brick in the Early Tudor Period', Appendix 4 provides a valuable summary of the evidence for 'Fifteenth- and Early Sixteenth-century Brick in Essex Churches'. Many of these are well-known buildings: complete churches at East Horndon, Chignal Smealey and Layer

Marney are included among the colour plates as are the towers at Gestingthorpe, Theydon Garnon and Tilbury-juxta-Clare. East Horndon church was begun in 1442 and work continued to Sir Thomas Tyrell's death in 1476. The others of these buildings have dates similar to the 1492 to 1520 of the bequests for the flint-faced brick tower of Dedham church so familiar to us from Constable's paintings.

Many years ago, this reviewer surveyed the woodwork donated to Norfolk churches after 1450. Almost all of this was given in the reign of Henry VII and very little after his son's accession in 1509. In Suffolk churches, there is the impression of little being done, precisely because little needed to be done, in the 1520s and later.

A whole series of interesting questions are raised. Does the Kuznets cycle of building peaks and troughs apply to medieval churches? It does to contemporary brick houses. One of the secular troughs follows the great land grab of the Reformation: this may be as much to do with twenty-years profits being the usual purchase price for a major estate and the money not being available for building, save in exceptional circumstances.

As Pat Ryan points out for the churches the documentation is weak. It is from contemporary written records that dates are usually available. An otherwise undated chapel with a dated memorial nearly always predates the death of the donor: it is known heirs do not always continue with an ambitious building scheme. The brick church at Shelton, Norfolk, is an obvious example of a building finished less lavishly after the donor's demise.

Essex is next to Suffolk and forty miles south of Norfolk. Are there variations in the pattern of brick in churches in the three eastern counties? Are there personal, even family, links between those who give for a brick church in these counties? Are these links confined to the sixteenth century? This is so with Marney of Essex and Shelton and Bedingfield of Norfolk.

King Henry VIII died in 1547. And here, I think, is where a possible methodological difficulty with the book is to be found. Taking her cue from the cessation of church building at the Reformation, and like Jane Wight in *Brick Building in England from the Middle Ages to 1550*, Pat Ryan stops before the reign of Elizabeth I.

From a secular viewpoint, is this a good place to break off? As noted above, the evidence suggests an overall lull in secular building from the late 1530s until the 1570s. The politics of instability play a part in the length of the downturn in the building cycle. But the Elizabethan diplomat, Sir Thomas Smith, was building Hill Hall at Theydon Mount, Essex, between 1557 and 1575. One question this reviewer would like to explore is how were high quality brickmaking and bricklaying skills kept going between say 1539 and say Robert Lyminge's work at Hatfield, Blickling and Felbrigg in the 1610s and 1620s?

So much of the physical evidence is lost or overlain by later work but as Hill Hall and New Hall, Boreham, show in Essex as in other counties where brick is often the first choice of building material for a great house, through four or even five overlapping generations the skills were kept alive.

This is just as they had been in the century and a half of secular work which Brick in Essex does cover, sc. 1400-1550. In this period two major tax surveys exist which deserve to be better known by building historians. Pat Ryan has made judicious use of the 1436 income tax, first studied by H.L. Gray in a long paper in The English Historical Review in 1934. As she comments, lucidly in Chapter 7 on 'Fifteenth Century Brick Builders in Essex', the four richest non-peers in the county all built in brick. They have family relationships with one another and all have some form of court connection.

The other great tax survey was the series of loans, subsidies and benevolences which Henry VIII extracted from his subjects to pay for his adventures in France in the 1520s and again in 1545. Unfortunately the rats have eaten most of the documents that were sent to the exchequer and all that survives from this "new Doomsday" is a few copies kept in private hands. For Essex, I know of no surviving subsidy rolls such as has been printed for Suffolk, for 1523-24, or exists in manuscript for the three north Bedfordshire hundreds in 1545.

The possible comparison of one of these documents, if such exists, with brick buildings in Essex repay study: in a preliminary form such was attempted for the Anticipation of 1522 for Norfolk in BBS Information 32. This suggests that early in Henry VIII's reign, it was still only the very richest men who could afford to build in brick, but forty miles north of Essex the physical evidence and the Hearth Tax both point to a far less exclusive range of builders in brick the end of the sixteenth century.

In her final sentence, Pat Ryan implies a different form of exclusivity in Essex: after the dissolution of the monasteries, "the period of great country house building began and brick became the only possible material for a courtier or even a member of the county gentry to build with in Essex". Perhaps this reviewer has read too much into differences between English counties.

These differences do need exploring. For one county important to the study of brick, Mrs Ryan has produced a splendid study, which has raised in this reviewer's mind a whole host of questions. As such, the book has gone beyond its brief to survey the brickwork of Essex between the Roman Conquest and the Reformation.

DAVID H. KENNETT

### BRICK IN PRINT

In the first half of 1998, the Editor and the Chairman of the British Brick Society each received notice of a number of recent publications with items of interest to members of the society. Several are in journals not usually seen by members. The articles are given in author order.

It is hoped to make this survey of articles and reports a regular feature of BBS Information. Members involved in publication and members who come across articles should send brief summaries to the Editor.

David H. Kennett

1. Ian M. Betts, 'Glazed Eleventh-Century Wall Tiles from London', Medieval Ceramics, 20, 1996, 19-24.

With his usual careful approach, Ian Betts examines a small group of eleventh-century wall tiles, some still in situ at Westminster Abbey, others from excavations in the City of London. Fabric types are described and manufacturing techniques discussed. The tiles fall into two groups and most are covered with a brown lead glaze, sometimes tending to a greenish-brown, sometimes almost black, they were used, diagonally-set, as internal wall facings. They were associated with important ecclesiastical sites. The author considers the tiles in relation to other late Saxon and Norman ceramic building materials and emphasises that the use of glazed wall tiles appears to have been a short-lived fashion. The paper includes a map of locations, drawings of some of the tiles, and a colour photograph of the in situ examples in Cheneygates, Westminster Abbey.

2. A. Corder-Birch, 'Brickmaking in Essex', with six photographs of old Essex brickworks, in K. Neale, editor, Essex - 'full of profitable thinges', a set of twenty-six essays presented to Col. Sir John Ruggles-Brise, and published by the Essex Archaeological and Historical Congress, September 1996, in tribute to his life of service to the people and County of

Essex. References to other Essex brick buildings include many to Spains Hall, Finchingfield, the home of the recipient. This is a red brick house of the early Tudor period. Copies are available from H. Martin Stutchfield, Lowe Hill House, Stratford St Mary, Suffolk; the hardback volume with 465 pp. is priced at £14-50, plus £4-00 postage.

Adrian Corder-Birch

3. John Drewett, 'No Brick Unturned', *The Lady*, 14-20 April 1998, 71. This single page article (in a periodical, I do *not* usually take) gives a fascinating account of the large brick collection of our Publications Officer and Bibliographer, Ann Los, illustrated with a photograph of the smiling Ann. The article quite rightly emphasises Ann's scholarly work in connection with her bricks.

4. Robert Field, Geometric Patterns from Tiles and Brickwork,
Diss, Norfolk: Tarquin Publications, 64 pp., with copious illustrations, price £2-95.
A useful guide, mainly confined to southern England.

DHK

5. A. Flint, 'The Marston Hill Brick and Tile Company, Priors Marston', in *Retort!* Issue 7, Summer 1997.

This Warwickshire brickyard was in use c.1874 to c.1895 and again 1939-41 and 1945 to 1970. Nothing now remains of the works. The article records manufacturing techniques, kilns, and products which included bricks for use in fireplace surrounds; it includes photographs of the works in 1953. Post-1945 buildings using these bricks include the Church of the Holy Name, Bow, London, and a 1960 church in Newbury, Berks. Retort! is the Bulletin of the Warwickshire Industrial Archaeology Society; details are available from Martin Green, Argyll, 2(B) Union Road, Learnington Spa, Warwickshire CV32 5LT. DHK

6. C. Higgins, 'Tile Gurus', Guardian Weekend, 13 June 1998.

In 1904, Halsey Ricardo designed a veritable riot of colour in brick and, more especially, in tile for the millionaire store owner Sir Ernest Debenham. Splendid photographs illustrate this account of no 8 Addison Road, Kensington, now Peacock House, the home of the Richmond Fellowship. It includes blue/grey bricks, Doulton Carrara ware, and green-glazed and turquoise-glazed Burmantofts bricks, all in a heavy *Rundbogen* style, roofed with green Spanish tiles. The house is not open to the public but is easily viewed from the street. *DHK/TPS* 

7. David H. Kennett, 'Twenty-five years of the British Brick Society' in Clay Technology Number 59, May/June 1998.

David Kennett has done the society proud in his review of its twenty-five years of existence. He begins with a consideration of the nature of the society and its members' varied interests and then gives an account of the society's beginnings. The original objects of the society are set out, and some space is given to the society's various meetings over the years. The growth of and changes in its publication, BBS Information, are also described. For those of us present at the beginning the article is engagingly nostalgic; for newer members it offers a fascinating account of the origins and resilience of the society of whose future none could be assured in the early days.

TPS

8. T.P. Smith, 'Hiort Patent Chimney Bricks from Lambeth, London', in Trans. London and Middlesex Archaeological Society, 47, 1996, 187-192.

Post-excavation work by the Museum of London Archaeology Service on material from Coronation Buildings, South Lambeth Road SE11 brought to light a rare complete example of this type of brick considered by Maurice Exwood in BBS Information, 34, November 1984, and by T.P. Smith in BBS Information, 38, February 1986, by T.P. Smith. There was also a fragment of a second similar brick. These bricks have a distinctive and unusual shape; they were manufactured according to a patent for chimney flues taken out in 1825 by J.W. Hiort. Flue bricks, by their very nature, are not normally visible in standing buildings; nor are they a common find on archaeological excavations. These examples add to the knowledge of their use and manufacture which is relevant to the social history of nineteenth-century London.

TPS/DHK

7. Anon., 'Mother of the chapel', Homes and Antiques, June 1998.

The Watts Chapel, Compton, Surrey, celebrates its centenary in 1998; a brief piece records Mary Watts' work as a potter and an artist and includes a good colour photograph of the exterior brickwork of the remarkable chapel, best known for its interior of terracotta.

Other publications have carried items on the chapel: for example, a brief note *The Guardian*, 22 August 1998, Travel section, page 19.

DHK

### Meeting the Brick Challenge

During the early months of 1998, the British Brick Society has held a Spring Meeting at Williamson Cliff Brickworks, near Stamford, and Aslackby Manor, Lincolnshire, on 16 May 1998 of which reports appear here, followed the Annual General Meeting in Cambridge on 13 June 1998 with a brief tour of colleges in the north of the city and a Summer Meeting in Essex on Saturday 12 June 1998. Reports of the two last-named will follow in BBS Information 76, February 1999.

#### WILLIAMSON CLIFF BRICKWORKS

Brickmakers Williamson Cliff, known to some members for their buff bricks sympathetically used next to the stone of Oxford and Cambridge colleges, have a small but intriguing works at Little Casterton, near Stamford, Lincs. John Taylor, in charge of the production of facing bricks, welcomed some thirty members and guests gathered on a beautiful Saturday morning, eager to learn more about this fascinating brickworks: they were not to be disappointed.

First, John Taylor introduced us to 'Sooty'; never mind that this reporter never learned why 'Sooty', know that he had all the enthusiasm we have come to expect from skilled and knowledgeable brickmakers. New for many of us was that our guide made refractory bricks and blocks for use in furnaces where the high temperatures required high strength, low thermal conductivity and a low coefficient of expansion. The vast majority are made for the major brickmaker, Hanson Brick, to line their kilns.

We learned that the increasing demand for refractories more resistant to higher temperatures than those made from British fireclays has led to the import of bauxite aggregates from such places as Guyana in South America and China. Bauxite from China, we were ruefully told, is so hard that it quickly wears the grinding machinery.

Although for many years local clays were used, much use is now made of recycled refractory materials brought in from outside. In addition some fireclays are brought in from other parts of Britain, including St Austell, Cornwall.

We saw large blocks individually moulded at the rate of 60 to 80 an hour in steel moulds, often made 'in house', and costing up to £5000 each. The 300 mm blocks normally shrink some 3 mm or by one per cent. By way of contrast we saw delicate industrial electrical element holders in Plaster of Paris moulds.

On to the facing bricks guided by John Taylor where some of us were amazed to learn that hand-thrown bricks do not necessarily have the crease marks which give rise to the 'smile' on the face of bricks in the wall. This was said to be because in order to help release the clay the steel moulds were oiled after every five bricks instead of the more usual sanding before every use. Again it was reassuring to see so many bricks of special shapes and sizes, for it is their judicious use that leads to the refinement and enrichment of brickwork.

Some adventurous members took advantage of John Taylor's invitation and expert tuition to literally try their hands at throwing prepared clay clots into a mould. It prompted one member to recall another brickmaker's account of his surprise at the excellent quality of bricks produced by a young lady at her first attempt. He believes she handled the clay sympathetically as she had learned when kneading dough when making her own bread. This was sadly in contrast to one of Williamson Cliff's young men trainees who despite trying for may weeks never developed the knack.

The under cover visit aptly ended with viewing the dryers and the kiln which fired some 50,000 bricks over three to four days at a maximum temperature of 1350°C.

For a compete change, John Taylor led us to the quarry where the raw material lay. As we scrambled along ankle twisting tracks of hard clay deeply rutted by giant rubber tyres of clay-winning vehicles during wet weather we understood why we had been warned to bring our wellies - just in case of rain. The view of the quarry was quite remarkable: a moonlike surface of clay terraces carved through green hills with nothing to give it scale: a giant USSR Volga dam excavator or a Dinky toy model would have been equally acceptable.

At one time six men had been employed constantly digging clay but now contractors are employed for a week every two or three years to dig it in bulk to be stored near the works.

Having learned much and with many sincere and heartfelt thanks to Williamson Cliff and especially to John Taylor and 'Sooty' for giving us their time on a Saturday and sharing their long acquired brickmaking experience and wisdom, we headed for our next appointment in small convoys, some even managing to pause long enough for some local liquid refreshment. TERRY KNIGHT

### THE KILNS AT WILLIAMSON CLIFF BRICKWORKS, LITTLE CASTERTON

This account concentrates on the former and present kilns of Williamson Cliff brickworks. The Belgian Kiln no. 3 (fig. 1) was demolished in April 1998. It had twenty-four chambers of 7000 brick capacity and was latterly oil-fired to 1350°C. The fire took a month to do a complete circuit of the kiln, one chamber each working day. It was constructed of 'Whittlesea Central' Fletton bricks, from near Peterborough, and lined with Williamson Cliff's own firebricks. The date of construction is about 1950 but it was square-ended, very

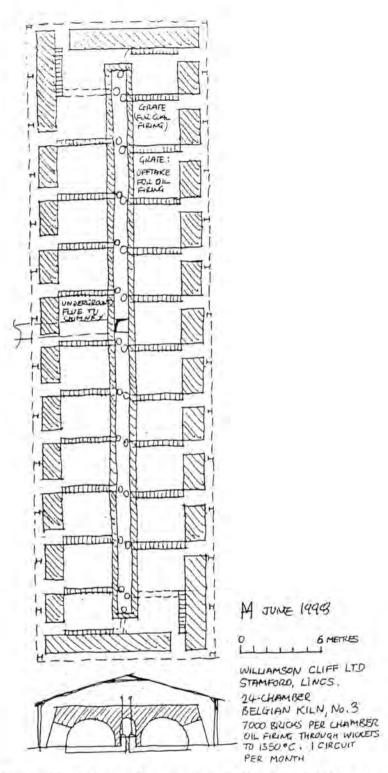


Fig.1 The Belgian Kiln no. 3 at Williamson Cliff brickworks, near Stamford.

similar to the twenty-two chamber kiln at Chellaston Brickworks, near Derby, built in 1905. The Whittlesey works was founded in 1898 and taken over by the National Coal Board in the mid 1960s. The Williamson Cliff Company was founded in 1910.

Belgian kilns were considered the best for high temperature work; e.g. firebricks. The design was patented in 1895 by the Dubois d'Enghien brothers of Hennuyeres, Belgium, a works at one time (1977-80) owned by Ibstock. The design consists of chambers about 3 metres (9 ft 10 in) long by 3.6 metres (11 ft 10 in) wide, with a grate set in the floor at the

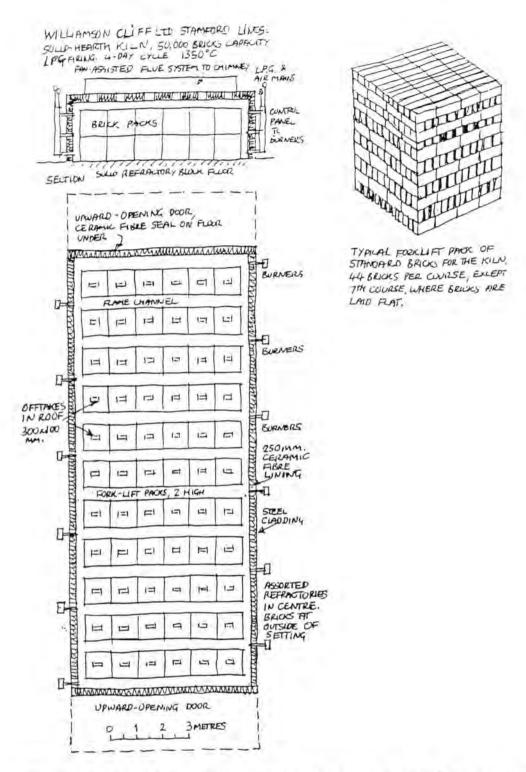


Fig. 2 Solid-hearth kiln at Williamson Cliff brickworks, near Stamford. Inset shows typical fork-lift pack of bricks for the kiln.

back end. Coal fires were fed through a firedoor formed in the wicket and had an opening at the wicket end for admitting combustion air. It also served as an off-take with a flue and damper connected with the main flue. The length of the chambers was limited by the heating power of the fires and the width by the distance a shovelful of coal could be thrown.

The other two Belgian kilns were of earlier construction and have long since gone. Their output became unreliable by modern standards.

The Solid-hearth kiln was constructed in 1993 to replace the unreliable Belgian kilns. The solid-hearth kiln (fig. 2) has a capacity equivalent to 50,000 standard bricks but in practice a mixture of bricks and assorted fireclay shapes are put in each firing, which lasts four days. Firing is with liquid petroleum gas, up to 1350°C. The kiln measures about 16.5 m by 6.5 m by 2.1 m (about 55 ft by 11 ft by 7 ft) and is lined with 25 cm (10 inches) of ceramic fibre in a steel sheet casing. The floor is of solid fireclay interlocking blocks with no flues. The off-takes are in the roof, in rows of six, each measuring about 0.3 m by 0.1 m (12 in by 4 in), centred between the fire channels. There are eighteen burners at three levels each side and each fire channel is fired from alternate sides of the kiln. There is an upward-opening door operated by a winch at each end and the bricks are set and drawn by fork-lift truck in pre-formed packs. For all that the arrangement of the burners, doors and off-takes is the same as in a Scotch kiln, of which this can be regarded as a very sophisticated example.

The single tall circular chimney which served the Belgian kilns is still standing. It, too, is built of Fletton bricks.

Manufacture of facing bricks began in 1927. Besides supplying facing bricks for some of the Oxford and Cambridge colleges, the bricks were also used in some of the halls of residence at Nottingham University and Zetland Court flats at Westbourne, Bournemouth. Costing £490 per 1000, these are among the most expensive facing bricks in the country and this reflects the care with which they are moulded and the high firing temperatures. Handmade roofing tiles were also made by Williamson Cliff until the 1960s and these were used for the roof of the works' office building.

MARTIN HAMMOND

### ASLACKBY MANOR HOUSE, LINCOLNSHIRE

The manor house, rescued from near dereliction in 1976 by BBS member Alan Baxter, provided the venue for the afternoon of 16 May 1998. The members and friends assembled in the sunshine had anticipated something special and would not be disappointed.

We heard how the village was in the gift of Canute who passed it to his cousin, Aslack, and how the site with south-facing slope, stream at the bottom and castle nearby was the setting of the manor for the Grimsthorpe estate of the Earls of Ancaster. The west wing of today's present house has the look of an eighteenth-century farmhouse but the local stone facing hides the timber structure of a medieval hall house which originally projected further west and may have been aisled. The east wing is of the mid seventeenth century. With a truly wonderful display of moulded brick picked out in the sunlight, the Dutch-gabled south face of this wing soon had the cameras busy. Alan imagined the treatment of this wing to reflect a period when people began "to let their hair down after a decade of Puritanism". in his own mind he was convinced that we were looking at the work of a builder with flair for design rather than that of an architect. Although exuberant brick decorations are very carefully worked out, the classical detailing is so idiosyncratic to say the least. In the 1970s, the joy was his to discover the brickwork in English bond hidden beneath ivy.

Our host then led us around to the east front of the east wing, where the main elevation is a rare example of bering deliberately asymmetrical. We were witness to mostly original windows and a good deal of original glass, notably of the middle window of the first floor. Alan explained the effect of the Window Tax which allowed windows if less than twelve inches apart to count as one. It made for an interesting arrangement on this east front. Oxford Clay, dug from the grounds, provided the bricks for walls three bricks thick on the

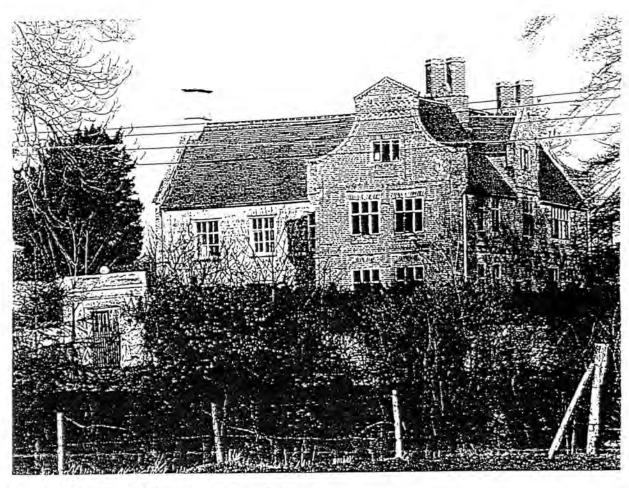


Fig. 3 Aslackby Manor House, Lincolnshire.

The mid-seventeenth-century East Wing in English Bond.
(photograph: Alan Baxter)

ground floor (two and a half bricks on the upper). Bricks were apparently made on site, charred coal is in evidence; and the clay pit is part of today's water garden.

The Grade I listed cart shed - a rare survivor of an eighteenth-century mud-and-stud building - drew some warranted attention before we moved back inside the house.

Inside our eyes feasted on original seventeenth-century pine panelling, pseudo-cherry grained and with good classical detail, as Alan enthraled us with tales of mummified mice and chewed walnut shells found behind it. Contemporary stained glass in this room displays coats of arms, although, oddly, these have no connection with the history of the house, and it was good to see the Ancaster stone floor which had been rescued from beneath a covering of linoleum. As we admired the oak panelling of a bedroom, Alan told of Grantham race cards from 1720 found hidden behind. The idea of a musket holder next to the fireplace in an attic bedroom appealed to our imagination.

We were invited to explore for ourselves; given the freedom of the house by a generous host. While some clambered among roof timbers to observe soot-blackened beams others were busy taking a closer look at those wonderfully wide tongue-and-grooved floor boards joined on the diagonal. Outside at least three members were discovered photographing masonry bees at work on the warm face of the south wing. In the garden we relaxed and took tea.

Thank you, Alan Baxter; thank you for sharing your enchanting house and for your patience (as some of us searched among the surplus brick-pile for examples to take home with use!) It was a memorable and fitting conclusion to the 1998 Spring Meeting.

MARY LOCKWOOD and GILL WATTS

### BRICK QUERIES

From time to time the British Brick Society receives enquiries and queries about bricks brickmaking, other ceramics building materials, and brick buildings. These are printed with responses in issues in BBS Information as space is available.

Replies are welcome.

The items on sewerage sludge bricks and a response on yellow stock bricks with a raised crown in the frog were received as the last issue of *BBS Information* was in final stages of preparation. These appear in full in this issue.

David H. Kennett

#### SEWERAGE SLUDGE BRICKS

I have recently completed a study of the sewers and drainage of Acton 1866 to 1965. In the nineteenth century this work involved the use of locally-made bricks and drainpipes.

I have a query which members may be able to answer. Has any member come across the use of sewerage sludge in the making of bricks? Edward Monson CE, surveyor of Acton from 1866 to 1877, advocated its use, claiming that it would save on the cost of chalk which local brickmakers had to get from some distance away. There is certainly evidence that when an invert sewer was cleaned out every fortnight the deposit was thrown on to a local brick field to be mixed with the dustbin rubbish already deposited there. The Sanitary Register, 6 June 1879, records Monson patented bricks made from sewerage sludge; another reference is Transactions Institution of Civil Engineers T8V 351/16.

Replies please to

Mrs Averil Harper Smith, 48 Penryn Road, London W3 7NA.

### YELLOW STOCK BRICKS WITH A RAISED CROWN IN THE FROG

Members may recall the query in *BBS Information* 60, October 1993, from Mrs Irene Buchan, a member of the Waltham Abbey Historical Society, about bricks she had found in the construction of a gun emplacement at Monkbarns, Waltham Abbey, Essex, dating to the First World War. Mrs Buchan was keen to know the source of these yellow stock bricks with a raised crown in the frog.

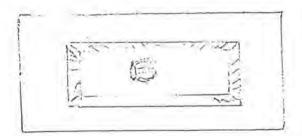


Fig. 1 Yellow stock brick with a crown in the frog used in the construction of a First World War gun emplacement at Monkbarns, Waltham Abbey, Essex.

When consulted in 1993, my initial view was as that of David Kennett in BBS Information, 60, namely bricks made to government order.

As a result of research for my forthcoming Gazetteer of Essex Brickworks, I have found

out that these bricks were made at the Millhead Brickworks of D. & C. Rutter at Great Wakering, Essex. These brickworks were also known as the Crown Brickworks. Rutters made yellow stock bricks from circa 1880 to about the time of the First World War and later owners continued making bricks on this site until 1960.

The bricks made here by Rutters had a crown in the frog. In their earlier bricks the crown was indented and in their later bricks it was raised. This is consistent with the bricks found at Waltham Abbey and used in the First World War construction.

The majority of the bricks manufactured by Rutters were transported along the River Thames to London by barge and some were thereafter transported to Waltham Abbey.

By strange coincidence, Monkbarns at Waltham Abbey where these bricks were found was the site of an old brickworks called 'Monkbarns Brick Field' of which George Symondson of Upshire Hall was initially manager and later owner.

Adrian Corder-Birch

### BRICK POINTING

Does any member know of contemporary writings on brickwork joints and the surface treatment of brick in historic buildings of the seventeenth and eighteenth centuries? I am researching Irish brick and in particular am seeking specific information on the practice of 'wigging' or surface colouring of brick associated with tuck pointing. Has there ever been a chronological study of brick pointing methods?

Replies please to
Susan Roundtree

6 Lower Beechwood Avenue, Ranlagh, Dublin 6.

## BEAVERTAIL-SHAPED ROOFTILES FROM BELGIUM WITH A HERTFORDSHIRE CONNECTION

I am the Curator of the Econmuseum & Archief van de Boomse Baksteen (the E.M.A.B.B.), and have recently joined the British Brick Society. The E.M.A.B.B. is an open air museum of the industrial activities of the Rupel region, near Antwerp. Our principal industries include brickworks, shipbuilding, the shoe industry and the diamond industry.

I have a query for members. I am researching an article on a beavertail-shaped rooftile produced in the Rupel region at Niel in 1846 at the Josson-De Langle brickyard. Later the rooftile was made in the Netherlands.

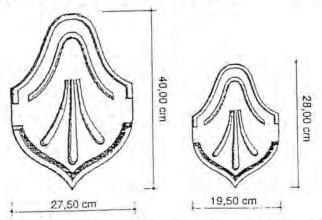


Fig. 2. Beavertail-shaped roof tiles from the Rupel region of Belgium.

This rooftile was introduced to Belgium by a Mr James Reed in 1843, when he had a licence to import his tiles into the country. If my information is correct, James Reed began his career c.1840 at Bishops Stortford, Hertfordshire, where he produced the machine-made rooftiles, using a steam engine.

The rooftile had the shape of a beavertail ("Biberschwanz" would be my description in Flemish) and is found also in Switzerland, Austria and the Bavaria region of Germany.

In addition to Reed importing his tile into Belgium from 1843 onwards, there is contact between the Josson-De Langle brickyard and the Architectural Tile Company in London concerning this rooftile.

I am looking for assistence. Who was James Reed? What about his company? What was the appearance of his rooftile?

Replies to

Paul de Niel,

Dorpstraat 28, B-2645, Niel, Belgium

### BEAVERTAIL-SHAPED ROOFTILES IN THE NETHERLANDS

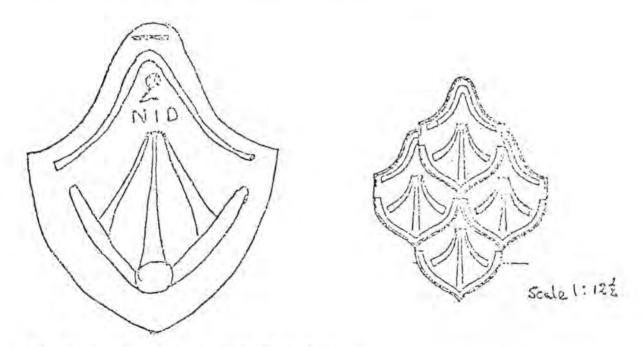


Fig. 3. Fan-shaped tiles from the Netherlands.

A patent for a tile machine by James Reed of England has been found in the Netherlands. James Reed made the tile machine in England; the patent in the Netherlands was granted to Victor Josson on 26 April 1851. The tiles are fan-shaped and fit flat as is shown in an enquiry in BBS Information, 27, May 1980, the illustration from which is reproduced above. MH/DHK

### BRICK IN THE TWENTIETH CENTURY: A PROPOSED REVIEW

The twentieth century draws to a close. A review of brick and its uses in the last hundred years seems an appropriate project for the British Brick Society to undertake.

An extended article will review brick and its uses in Britain 1895-1919 and publication of this is expected in BBS Information, 78, October 1999. Two further articles consider brick and its uses in Britain 1919-1939: their subjects - 'Brick and Economic Regeneration' and 'Brick and the Human Spirit' - show how the author has approached the period.

A separate group of articles will look at brick and its uses in Britain after 1945. Three articles will consider brick and its uses in the Netherlands in the twentieth century.

These articles follow the conventions of architectural dictionaries and encyclopedias such as the *Macmillan Dictionary of Art* to which several members of the British Brick Society contributed.

Authors have volunteered to cover the U.S.A. prior to 1941 and Czechoslovakia. These articles are in preparation; completion is anticipated between 2000 and 2002.

However, the authors so far contacted are not omniscient. In particular their expertise does not extend to twentieth-century brickwork in France, Germany, Italy, and Spain. This list could be extended to include also Belgium, the Scandinavian countries, the U.S.A. post-1945, and Japan. It is felt to be important to cover several of these named countries.

Articles covering countries other than the British Isles should be designed to occupy about eight pages of BBS Information with four half-page illustrations.

Experience in writing entries for the Macmillan Dictionary of Art suggests that some initial familiarity with the monuments and/or the literature with the requisite enthusiasm is all that is needed to begin an investigation. This is sufficient to get an author started.

If any member would like to take on the challenge would they please contact either the Chairman or the Editor of the British Brick Society. Both will be happy to give authors the necessary help in preparing their contributions for publication. A review of brick and its uses in a country in the twentieth century could cover just part of the century. Those who can contribute articles on developments since 1973 would be particularly welcome.

TERENCE PAUL SMITH DAVID H. KENNETT

### BRICKWORKS ON TELEVISION

The television programme 'Time Team' went to Stoke-on-Trent in 1998 to look for the site of Josiah Wedgwood's first factory. According to *City News*, July 1998, published by the City of Stoke-on-Trent, among the discoveries was a brickworks and bottle kiln foundations confirming the site of Ivy House, the original 1761 workshop of Josiah Wedgwood. The Channel Four programme is due to be broadcast early in 1999.

#### STOP PRESS:

### THE ROYAL SHAKESPEARE THEATRE, STRATFORD-UPON-AVON

As the final work on BBS Information 75, October 1998, was being done reports have appeared in local and national papers of a bid to the National Lottery Arts Fund by the Royal Shakespeare Theatre Company.

The bid involves the demolition of Elizabeth Scott's theatre, a building opened on 23 April 1932: the competition for which was held in 1926. The replacement would be designed by the Dutch architect, Erick van Egeraat.

DHK

### BRITISH BRICK SOCIETY IN 1998 AND 1999

Five visits and meetings in 1998 have been arranged. The remaining meeting is:

Autumn Meeting Saturday 26 September 1998 Dorset Brickwork.

A walk round Old Town, Poole, with an afternoon visit to sand-lime brickworks.

Full details for the Autumn Meeting were in the July mailing with BBS Information., 74 and the minutes of the Annual General Meeting.

Preliminary details for 1999 are:

Spring Meeting

South Buckinghamshire centred on High Wycombe, possibly including a brickworks visit and a visit to the sixteenth-century brick house at Chenies.

Northern Spring Meeting

Yorkshire: Leeds

Annual General Meeting Saturday 12 June 1999

Annual General Meeting at Trinity Arts Centre, Gainsborough, with afternoon visit to Gainsborough Old Hall.

July Meeting

Essex, including either Coggeshall Abbey or Layer Marney Tower.

It is hope to arrange an Autumn Meeting at Kew Palace. An alternative venue in the westerm part of the City of London is also under consideration.

Future meetings in preparation include visits to Blackpool, Coventry, Oxford, Stafford, Stratford-upon-Avon, Warwick, Wigan, Wolverhampton, and Worcester, with Wigan the probable venue for the Northern Spring Meeting in 2000. A visit to rural south-east Warwickshire is being planned, including the brick kiln of the Oxford Canal at Fenny Compton.

The British Brick Society is always looking for new ideas for future meetings. Suggestions please to Michael Hammett, David Kennett or Terence Smith.