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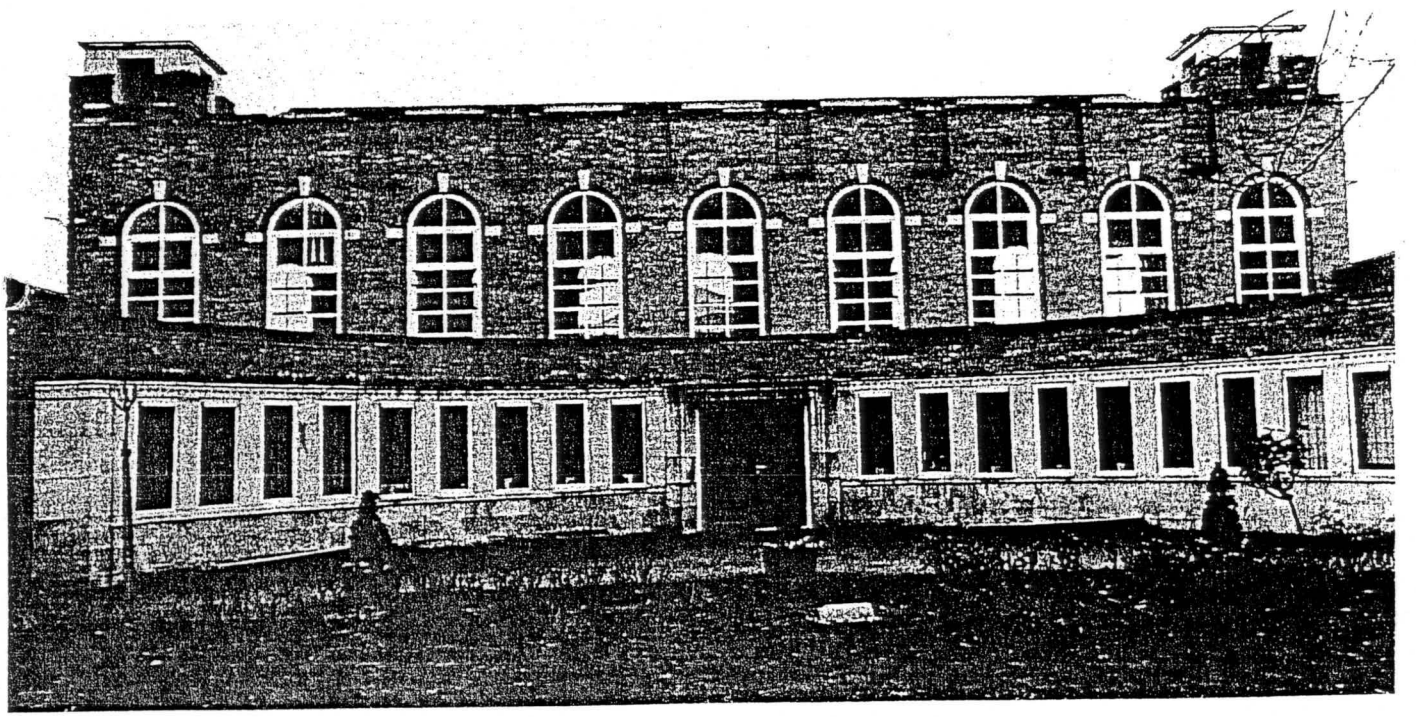

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British Brick Society web site:

http://www.britishbricksoc.free-online.co.uk/index.htm

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Cover Illustration:

Elm Street School, Middleton, Lancashire, designed in 1907 by J.H. Sellars of Manchester in collaboration with Edgar Wood. The tall hall block masks a long range of classrooms behind. The semi-circular entrance court is a distinctive feature of the exterior of this building.

Editorial:
The Brick Tax Revisited

About eighteen months ago, the British Brick Society was asked the question, "Why was the Brick Tax abolished?" No one seems to have had a definite answer. The reason for the imposition of the tax has always been plain: to pay for a war which was lost. The Brick Tax was imposed a year after the Treaty of Versailles confirmed the independence of the new United States of America. Trying to defeat the colonists had cost George III's governments a great deal of money and this had to be recouped somehow.

Abolition of what was, in effect, a fiscally neutral tax, one which collected useful revenue, relatively painlessly, and did not harm production of the thing taxed, appears on the surface to have been an act of generosity on the part of the government. The abolition of the tax in 1850 may have been no more than a tidying up exercise. The great debate on the repeal of the Corn Laws had been resolved four years earlier. Taxes on production were out of fashion. The tax on glass manufacture was abolished in 1846 but there is clear evidence that this was a tax which harmed the building industry. The Brick Tax does not seem to have generated the same level of damage to building as an industry. Certainly none of the modern sources comment on its abolition in this or any other light.

The abolition of the Brick Tax came just as trade and building were picking up. The first modern scholar to comment on the tax, H.A. Shannon, concluded his study with a comment on the upswing in production in the mid-1850s to the building boom of 1857. As with so many booms, it ended in tears. There is a dramatic representation of this by James H. Cafferty and Charles G. Rosenberg entitled `Panic of 1857. Wall Street. Half past 2 o'clock Oct 13, 1857'. The painting, now in the Museum of the City of New York (the Gift of the Hon Irwin Untermyer), has been exploited for its architectural information but is equally a scene of great historical importance. It was this crisis which led Clement Juglar to write *Des Crises Commerciales et leur retour periodique en France ,en Angleterre at aux Etats Unis*; the book was published in 1862 and a revised edition issued in 1889. It is an extremely readable book.

It is worth noting that Juglar was not the first to express the idea of a periodic downturn in trade at intervals of seven to eleven years. Friedrich Engels had said very much the same thing seventeen years earlier in *Die Lage der arbeitenden Klasse in England,* better known to us as *The Condition of the Working Class in England.* Between first publication in Leipzig in 1845 and the first English edition of 1892, Engels revised his ideas about the timing, preferring ten years to seven years as the interval between booms or between slumps.

The records of the Brick Tax are one of the most valuable ways of charting the rises and falls in national brick production. Equally they are a record of the internal health of the economy and important to a study of the trade cycle.

Thus the records of the Brick Tax of the national demand for bricks have been exploited by various scholars from differing viewpoints but with one significant exception relatively little has been done on the local records which are extensive for 1829 to 1849. What is recorded in the sources - the *Returns of Brick Duty* as set down in *British Parliamentary Papers* in 1839, 1846, 1847-48, 1849, and 1850 - is the actual duty paid at local centres. However, as by 1833, the duty was only paid on common bricks, at 5*s.* 10*d.* per thousand bricks, and on larger bricks at 10*s.* 0*d.* per thousand but with only a few of the latter being made, it is not difficult to work out the number of bricks produced in the region covered by each centre. Taxes on tiles, including mathematical tiles, were repealed in 1833 and on slates in 1831.

Most of the work that has been done has been to reduce the annual tax paid at each of the collection centres to a statistical index with tax paid in 1830 as 100 and all subsequent years

expressed in relation to that statistical construct. This has been published only as a summary table for alternate years, and then only for half the collection centres. Arising from the initial statistical work by H.A. Shannon, J. Parry Lewis produced summary graphs for five centres in England and that for East Wales. Using all the centres in England and Wales, but not those in Scotland, R.C.O. Matthews produced two summary graphs for 1833 to 1842 only, showing two broad groups of centres: one with a peak in production in 1836 followed by a decline; the other, larger, group with the major production peak in 1840. The accompanying table in his book gives monetary totals for the tax raised in each group of centres.

No fewer than fifty-three collection centres were involved, spread throughout England, mostly one per county. Some counties are designated as the centre for tax collection: Cornwall, Cumberland, Dorset, Essex, Hampshire, the Isle of Wight, Salop, Suffolk, Surrey, and Sussex. Many centres where the county has only one recording point are the county town: Bedford, Cambridge, Derby, Hereford, Hertford, and Northampton. However some counties have more than one centre for tax collection. Lancashire had three - Lancaster, Liverpool and Manchester - and for a short time a fourth, Wigan; and the West Riding of Yorkshire had three: Halifax, Leeds and Sheffield. Devon also had three: Barnstaple, Exeter and Plymouth. Several counties had two centres for tax collection: Chester and Northwich in Cheshire; Canterbury and Rochester in Kent; Grantham and Lincoln in Lincolnshire; King's Lynn and Norwich in Norfolk, Bath and Wellington (to 1846) in Somerset; Lichfield and Stafford in Staffordshire; Stourbridge and Worcester in Worcestershire.

The only one of these provincial centres for which record of duty collected has been published is Liverpool and then only because Liverpool from 1838 has records of the number of houses constructed each year within the city, one of the earliest such records surviving. It was printed in *The Builder* in the issue of 18 May 1867.The great mass of the records of house construction in individual municipalities collected by Bernard Weber and utilised by J. Parry Lewis in *Building Cycles and Britain's Growth* begins with that of 1850 for Birkenhead, followed by those of 1851 for both Abertawe (Swansea) and Cardiff, and those of 1852 for both Bradford and Hull, all of which are just too late for comparison with the surviving records of the Brick Tax as has been done for Liverpool.

It would aid study of the Brick Tax and of the uses made of bricks in the 1830s and the 1840s if some one were to sit down with the *Returns of the Brick Duty* in the various annual volumes of *British Parliamentary Papers* and abstract all the data.

The editor of *British Brick Society Information* would be pleased to offer publication space as he knows that many could benefit from the material.

The British Brick Society has now begun its 2001 series of meetings and visits with a very successful day school at Burton Agnes in East Yorkshire and the Annual General Meeting in King's Lynn to look forward to as this issue of *British Brick Society Information* is in the press.

Unfortuantely, owing to the foot-and-mouth epidemic in livestock and the subsequent closure of all public footpaths in Warwickshire and the canal towpath alongside the Oxford Canal, in common with all canal towpaths in the county, in March 2001, the society was unable to hold its projected meeting in south-west Warwickshire visiting the disused brick kiln at Fenny Compton, the sixteenth-century house at Wormleighton and the arch at Chesterton: the only access to the last is through a field to enter which involves crossing a cattle grid. Access to the Fenny Compton kiln involves a three-quarters of a mile walk along the canal towpath. The visits co-ordinator hopes to re-arrange the meeting for a Saturday in March in a future year.

DAVID H. KENNETT
Editor, *BBS Information*, 19 April and 25 May 2001

Obituary:
Geoffrey Hines

Members of the British Brick Society will be saddened to learn of the death of Geoffrey Hines, of heart failure, and peacefully in his sleep, on 3 April 2001. A funeral service was held in the parish church of St Mary-le-Tower, Ipswich, on 10 April 2001.

Geoffrey was born on 27 April 1912 and was educated at Cheltenham and New College, Oxford. He obtained the degree of Bachelor of Arts from the University of Oxford and, in due course, that of Master of Arts. He served with the Royal Liverpool Regiment during the Second World War and spent its last year as a prisoner of war. After demobilisation, he worked for the Education Department of East Suffolk County Council in Ipswich until 1950, when he was appointed Director of the Swarthmore Adult Education Centre in Leeds, where he did pioneering work in that field. After a short time in Bristol, he joined the Norfolk County Technical College in King's Lynn as Senior Lecturer in Humanities. He made his home in Ipswich, where his wife, Sheila, was a doctor in general practice. Sheila pre-deceased Geoffrey in 1989.

He will be remembered affectionately by many of the older or more long-standing members of the society. He was, together with Ron Firman and the late Laurence Harley, and with a young T.P. Smith playing very much the role of acolyte, a founder member of the British Brick Society in 1972, and in its early days was seen at practically all meetings. He continued to attend Annual General Meetings as recently as those held at Wye College, Kent, in 1983, Ewelme, Oxfordshire, in 1984, Avoncroft, Worcesterhire, in 1985, and the Ibstock Design Centre, London, followed by the coach tour of Docklands in 1991.. Even in his later years, and with frailty becoming apparent, he was able to attend some meetings, although not always for all of them. He came for the morning part of the 1991 Autumn Meeting in Reading. We particularly remember his trenchant comments at Reading Abbey suggesting that Henry II could have commissioned the work in brick but chose to use stone. As far as any of us can recall, he last came to one of the society's meetings when the society visited the William Reade brickworks, the martello tower and the museum at Aldeburgh during the Autumn Meeting in 1991. While most of those participating were transported by hired coach from Stowmarket Station to Saxstead Windmill and the sites in Aldeburgh, Geoffrey bravely followed in his car as he was intending to visit an old friend that afternoon.

When it was founded in 1972, and in its early years, the British Brick Society enjoyed the support of members of the board of directors of the London Brick Company Ltd and of Geoffrey Laurence, a director of Redland Brick and Tile Ltd: Marie Laurence, his widow is still a member of the society.

By the early 1980s, the society was experiencing administrative difficulties and Geoffrey Hines was encouraged to approach Jack Tye, the secretary of the brick manufacturers' trade association, the Brick Development Association, for help. Jack's response was to ask Mike Hammett, an architect on the BDA's staff, if he would accept nomination as honorary secretary of the British Brick Society and the associated Brick Section of the British Archaeological Association, as part of the BDA's support for the society on behalf of the brick manufacturing industry. Mike was elected at the society's Annual General Meeting in 1983 held at Wye College, Kent. Initially the BDA also funded the printing and mailing of *BBS Information* and correspondence to all members but by 1990 the society was able to meet these expenses without subsidy.

Geoffrey, on behalf of the society, was always grateful for the BDA's support and was a great encouragement to Mike in the secretarial role. A mailing never passed without prompt

acknowledgement and appreciation - always in that particular style of note that was unique to him, typing that utilised every square millimetre of random sized sheets of scrap paper, often with interesting, but unrelated, text on the other side (he was an early recycler, but a word processor would have never coped).

In a letter to the Editor of this journal in 1994, Geoffrey recalled his part in its origins as a single-sheet newsletter - thus accounting for its somewhat quaint title, *Information.* He would "devote a Sunday to compiling and another to typing the earliest issues on a [wax] stencil ...", which was then run off and distributed, free of charge, by his college in King's Lynn. He had been told somewhat sniffily, by someone high in the archaeological world, that, yes, such projects generally run for ten or twelve numbers before they die out. It was the kind of attitude that Geoffrey deplored and he was therefore all the more determined that this should not happen to *Information.* Nor did it! He was especially gratified by the way in which the publication grew under subsequent editors, and one former editor recalls, on the occasion of his first issue, Geoffrey's warm letter of congratulation. It was typical of Geoffrey, who was ever, in what these days is perhaps an unfashionable word, a *gentleman.*

He occasionally contributed to the publication himself, although he never saw himself as possessing expertise in the field of bricks. Rather he wished to act, in his own words, as a catalyst to others. Certainly his enthusiasm for all aspects of the subject communicated itself to those of us who knew him, and he was always ready to ask a telling question, to throw out a hint, or to suggest work that might be pursued by those whom he modestly acknowledged as more expert than himself. He was also generous in his attitude towards the publications of others - of John Woodforde, for example, and of Jane Wight, as well as of the current Chairman of the British Brick Society.

He was generous in other ways too: some years ago he presented some valuable archive materials to Dartford Grammar School in Kent, where his father, C.P. Hines, has been Second Master between 1902 and 1910, before becoming Headmaster of Soham Grammar School, Cambridgeshire.

In his last years, Geoffrey devoted his time and his energies to completing his study of the poet Thomas Stearns Eliot, for whom he felt a special affinity. As a young man he had met Eliot and he had a great enthusiasm for the poet's work. Geoffrey's treatise on the poet and playwright, happily completed before Geoffrey's death, is unpublished, although a copy is held by the T.S. Eliot Archive in the Library of King's College, Cambridge.

Geoffrey is survived by his three sons, and the British Brick Society expresses its warm condolences to them and their families.

MICHAEL HAMMETT
DAVID H. KENNETT
TERENCE PAUL SMITH

Bricks are Us Too

I had various sets of toy bricks during my childhood, starting with a set of unpainted wooden blocks made by my grandfather, who was a joiner. In about 1950 I was given a set of painted hardwood Wittgenstein-type blocks. I was too old for lego when it first appeared, but I do remember seeing adverts for Lott's Bricks and I had a `Brickplayer' kit. The bricks were red, were of dust-pressed clay, rather lightly fired. They were certainly dusty when new. The set included standard, half-batt and three-quarter-batts. When my moulding and kiln-firing skills had advanced sufficiently I improved it with British Standard specials: squints, radial stretchers, quarter-batts, plinth stretchers, and returns. Also in the kit were plastic window and door frames, sheets of stout card coloured and impressed with a tile pattern for the roofs, and a little pressed steel trowel for the `mortar'. I have got moulds for 1:12 and 1:5 scale bricks and can make standards and specials to order.

I also had a `Bayco' set with which I could build 1930s style suburban houses. I much preferred the Brickplayer. Meanwhile, out in the garden I was collecting the real thing: wirecuts, slop-moulded hand-made, blue bricks, radial stretchers, stable paviours, and some stamped SALTERWOOD from Salterwood Colliery, Denby, Derbys., (later the Butterley `Aglite' plant).

One one occasion at primary school, we could bring our own toys to play with for an afternoon. One child had a set of `Minibrix'. Brick-red in colour, they were about the same size as Lego blocks. It was an early ambition of mine to build a voussoir arch, which I did for the first time with real bricks and mud for mortar, at the age of eight. I think that the Minibrix could be fitted together in a row, bent into an arch shape and suitably restrained at the abutments.

In the early 1930s Ibstock made `Toy bricks for happy boys'. the dimensions on the illustration reproduced in *Dig it, Burn it, Sell it* appear to be 2¼ x 1⅛ x ¾ inches; apparently stiff-plastic pressed with a frog:

> An ideal toy for boys with constructive minds. For education and enjoyment, where the real article adds to the fascination of youthful builders.

I would have been a happy boy with them. Fifty years later, to encourage the imaginative use of specials, the same firm offered architects kits of 1:5 scale hardwood British Standard specials to play around with. At about the same time Lonlas Village Workshops of Neath, Glamorgan, marketed kits for teaching building construction in the classroom. The standard brick, looking like a miniature Fletton, measured 35 x 17 x 12 mm; and a alarger brick for detail work 80 x 37 x 28 mm. The house-building kit included concrete blocks, steel lintels, drainpipes and fittings, and air bricks. `Permanent' or `non-permanent' mortar in 1 kg bags was available.

For model construction and dry laying any building block should be square, accurately made, with sharp arrises.

MARTIN HAMMOND

The Bricks of P & S Wood

The bricks of P.& S. Wood of Pump House Brickworks, West Bromwich, are noted in *BBS Information,* **83,** February 2001, as having a distinctive mark of a six-pointed `Star of David' with a W within the star. These Staffordshire blue bricks were used in the bridges of the East Norfolk Railway, Aylsham branch, in the section near Reepham built in 1881. The line is now the Marriott Way footpath and in places where some of the abutments have collapsed, complete examples of the bricks, stamped with the full name and address of the company can be seen.

EDWIN ROSE

Britain, 1895-1919
Part Two: The Private Sphere

David H. Kennett

THE PRIVATE SPHERE

The article in the previous issue of *British Brick Society Information* entitled `Brick and its Uses in the Twentieth Century: 1 Britain, 1895-1919 Part One: the Public Sphere' dealt, as its title implies with areas where the buildings were provided for the populace. In this article, the buildings considered are those where a man or woman had discretion. Housing provision for oneself and one's family was a direct function of income levels but even here amongst all except the poorest, some choice could be exercised.

The three other areas considered in this article, recreation, church-going and education, each illustrate spending on building directly controlled by the user of the facility or, for education, through the payment of rates or school fees, by his/her parents.

HOUSING

In housing the beginning of the end of the sea of red brick terraces in long straight rows dominating compact urban environments is signalled by two developments: municipal housing is relatively new but planned suburbs have a longer history. Gardens both front and back became the norm in many new developments.

However, some of the previous standard type of terraced housing, which was essentially a long range of two brick walls with dividing walls between the dwellings did continue to be built. The opening credits for *Coronation Street* are of houses in the area of Reservoir Street, Salford, built in the late 1890s/early 1900s. These open directly from the street. Such houses were built in many towns as late as 1904: the most easterly ones on the south side of High Town Road, Luton, are of this date. On the opposite side but further east a terrace was constructed between about 1908 and 1912, three to five houses in each year, that pick up isolated `Arts and Crafts' details, like the use of pebble-dash and the timbering. Backing on to these on the south side of North Street, Luton, are four blocks each of four houses in Luton Greys, built 1912-14, with a profusion of stone features, bought from a builders' merchant, adorning the street frontage. Like the houses on the north side of High Town Road, these have small front gardens.

One of the most interesting developments is in Salford, Lancs., on the south side of Regent Road, and impinging on the very edge of the area characterised by Robert Roberts as *The Classic Slum* even if they are sufficiently physically distant from Oldfield Road, the street with the cellar dwelling-cum-workshop of Jamie Mossop in the play *Hobson's Choice*. Street names provide the date: King Edward Street, Queen Alexandra Terrace, Coronation Street all indicate 1902 for the development round Regent Square. These are long terraces of houses in orange-red brick; those on Regent Square are three-storeyed, the rest have only two floors; there are no cellars. Indicative of new developments in housing is that they were built with internal sanitary facilities.

Municipal Housing

Early schemes for municipally-financed housing begin with developments like the Boundary Street Estate in Shoreditch, London, by the working class dwellings section of the architects' department of the London County Council. In this development of 1895-1900, a variety of styles were pursued, mostly derived from the Arts and Crafts Movement, but including brickwork in coloured bands or alternating with banks of stone. Brick was the dominant building material here and even more so in the Millbank Estate of 1899 and subsequent years but one can note the use of window frames of standard sizes, white painted and especially effective in the climbing groups denoting stairs. Houses, too, were built under the London County Council's aegis. Early examples are those at Old Oak Common, in west London, and at White Hart Lane, in Tottenham. Brick is dominant, with some portions rendered.

Less well-known are those built in smaller places. Stratford-upon-Avon, Warwks., already had an honourable history of providing "working men's dwellings" with blocks of terraced houses in red brick, built in 1876 and 1877 on Mansell Street and Arden Street respectively. These were provided by a charitable trust. New municipal housing of 1912 on Birmingham Road was direct building by the borough council. Four terraces, each of six houses were built: the first with the celebratory plaque, the others with date stones. The houses are in red brick on the ground floor with the walls of the first floor rendered. Under the same housing act, pairs of houses were built on Bedford Road, Roxton, Beds., for Biggleswade Rural District Council. These had external walls of red-brown brick without any rendering.

The Garden Suburb

The Garden City movement, based on the ideas of Ebernezer Howard began with the layout of Letchworth, Herts., in 1903; three firms had competed to design the layout, and the Derbyshire-based practice of Parker and Unwin, who had already designed New Earswick, York, in 1901 for the chocolate makers, Rowntrees; New Earswick was in the course of building when the designs for the layout of Letchworth were made. The earliest houses at Letchworth, including a semi-detached pair for the families of Barry Parker and Raymond Unwin, who were also brothers-in-law, were substantial brick-faced houses. By the time the majority of the houses were conceived brick façades had given way to much use of pebbledash and white rendering.

Letchworth was a pointer for later development at Welwyn Garden City, also Herts.; after the Great War, much more brick was used externally than was the case in Letchworth. However, the public buildings, including shops, at Letchworth were mainly brick-faced in neo-Georgian style, the same style as was favoured for the houses at Welwyn Garden City.

Hampstead Garden Suburb is different, a carefully enclosed, exceptionally well-designed and carefully built enclave where architects, themselves, had chosen to settle. There are rendered dwellings, including one by Voysey for his father, but brick predominates, using red bricks to accentuate rectangular windows and gauged bricks, also red, around small circular windows as contrast to bricks in a deep rust colour. To heighten the contrast even more the window-frames were and are painted white.

In northern England, Manchester vied with York. The original Burnage Garden Village, whose layout was done in 1906 by J. Horner Hargreaves was built over with 136 brick houses between 1907 and 1910. The eighteenth-century Moravian settlement at Fairfield,, ten miles east of Manchester, was extended in the early years of the Great War, between 1914 and 1916 by Edgar Wood and J.H. Sellars, using a style approaching the original and on the way to the post-war neo-Georgian but with individualistic touches. Forty-six houses were built: by the 1920s, a small oasis of calm in the sea of turbulence of urban regeneration.

Houses for the Professional and Upper Classes

In small towns, affluent professional people began to build new houses: such were the clients of Edgar Wood in Hale, Ches., after 1907 as they had been earlier in Middleton, Lancs. Wood was an inventive architect, experimenting with concrete for structure and for flat roofs.

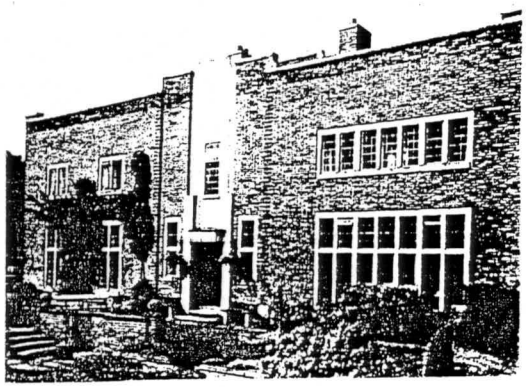

Fig. 1 'Upmeads', Castle Bank, Stafford, was designed by Edgar Wood in 1912 for Thomas Bostock of Lotus Shoes. It is one of a number of houses designed by Wood with a flat roof. The house is relatively conventional in plan, although entered from the north side, where there is also a garage as part of the entrance court. South of the house there was a large terraced garden going all the way down to the road. The garden front, seen here, now looks out on to a much smaller curtilage.

A different plan form derived from pattern books was favoured by developers in places as diverse as the suburb of Cyncoed, Cardiff, and the Worcestershire market town of Evesham. Here the façade of a semi-detached pair gave two large windows to each house but with the main door at the side of the house access to which was via a wide drive.

In many small market towns, more conventional houses were built, mostly detached but both in Shipston-on-Stour, Warks., and in Thrapston, Northants., some are large semi-detached dwellings. Both styles were built with sufficient space for a garage for a motor car: ownership of this conveyance in 1911 was more widespread than had been a pony and trap in 1901. The houses are built in local brick, using a variety of bonds: Flemish bond is the most common but Flemish garden wall bond is also found. Lintels may be shallow arches of brick or flat, carved stone; and a dished roundel of Art Nouveau glass is set in gauged brickwork in a contrasting colour. On some houses only the frontage is high quality facing bricks, with render, pebble-dash or lesser quality bricks on side and rear walls or on the first floor. The roof covering in plain or pantiles includes crested ridge tiles and a finial.

Mansion flats in London were invariably of brick. They vary in quality but the best demonstrate both how elegant a restrained brick façade can be and how much brick could carry: seven and eight storeys are close to the practical limits for load-bearing brick without the foundations and number of bricks in the lower courses becoming excessive.

Country Houses

Country houses continued to be built, actually in some profusion: the foundation of the magazine *Country Life* in 1897 coupled with the revival of rural prosperity after the Great Depression was a spur to flagging architectural practices. A steady practice could be established based on new small country houses with restoration work on existing houses. A brick house refurbished at this time is Earlham Hall, Norwich, whose grounds have been used for the

University of East Anglia.

In new houses the materials varied and brick was less often used than in other contexts. Architects working in Surrey and Berkshire , like E.L. Lutyens and Ernest Newton, did use brick as the principal building materials. Lutyens' `Wrenaissance' style at Folly Farm, Sulhampstead, Berks., has a main house in blue-grey brick with light red bricks of smaller size for quoins, window surrounds and the string course. Elsewhere brick could be hidden under pebbledash as with Morley Horder's house of 1904 for Allan Edward Bachelor of the agricultural produce family: at Greystoke (now Greys Mallory) at Bishops Tachbrook, Leamington Spa, Warwks. At a less opulent level, Voysey often was forced to provide his clients with a brick house covered with rough cast concrete rather than use more expensive local materials which he preferred.

Fig. 2 An architect who used locally-produced materials was E.S. Prior. In the last of his "butterfly houses" at Home Place, Holt, Norfolk, the materials literally came out of the ground on which the house was built. Brickearth was dug from the sunken garden in front of the house. The bricks are used as accents in the flintwork, from flints picked up in the vicinity The house has been a convalescent home for many years and has been altered both internally and externally.

By a less well-known architect is Dunchurch Lodge, Warwks., of 1908, designed for a coal owner, John Lancaster, by Gilbert Fraser of Liverpool. In red brick with lavish stone dressings, this L-shaped house occupies a central position in a garden designed by Thomas Mawson. The house is two main storeys and an attic storey and the roofline is adorned with blocks of square and rectangular chimneys in red brick.

An alternative use of brick in country house building was as brick-nogging to a new timber-framed house. Putteridgebury, Lilley, Herts., was designed in 1909 by Ernest George for T.M. Clutterbuck but sold before 1912 to the lawyer, Felix Cassels. The present house at Little Wenham, Suffolk, also dates from 1912.

BUILDINGS FOR RECREATION

Recreation is one of those areas where the building forms are not particularly well-known with the possible exception of London theatres. The theatre district of Birmingham on Hill Street and Suffolk Street remains virtually unknown. There is a former cinema (now in use as a nightclub) in light red brick, with a balcony on the Hill Street frontage. One early cinema in Birmingham was the `Piccadilly' by Nicol and Nicol on New Street, where the frontage is in light grey terracotta blocks. On Stephenson Street, the façade is now in green stucco, but with much glass

in the wall. the topography of Edwardian Birmingham was different to what it is today. Adjacent to the new cinema was Birmingham's Theatre Royal, which remained until 1957. However, the cinema was converted into a shopping arcade in 1926.

Manchester has virtually lost the once extensive district of entertainment buildings on the line formed by Quay Street, Peter Street, and Oxford Street. Only, at opposite ends of this axis, the New Theatre opened in 1912, by Richardson and Gill, and the Palace Theatre, of 1891, by Alfred Darbyshire, remain and the latter has been re-fronted more than once. Between were several other theatres and music halls, a ferris wheel (closed in 1910) and the purpose-built circus, the Hippodrome, of 1904, the largest auditorium in the city.

The New Theatre (now the Opera House) is externally little altered: the façade shows a remarkable assurance of design in the classical manner for two men neither of whom was aged thirty when it was designed. Richardson and Gill had only one previous theatre to their credit, in Torquay. The fluted Ionic columns in the centre of the New Theatre are stone but the rest of the front is stucco incised to look like stone. Both the rear and visible side elevations are of dull red facing bricks.

Expanding towns like Wigan, Lancs., with a population in 1901 of 60,764 but growing to 89,152 people ten years later, could boast more than one theatre on King Street. The `Playhouse' of 1916 has a street front covered with white faience. The `Court Theatre' is red brick and red terracotta.

Many theatres also showed the early films; purpose-built cinemas were only built after the Cinematograph Act of 1909. An early example in a theatre district is the `Picture House', Oxford Street, Manchester, with rich buff terracotta decoration to the front and sides which otherwise are red brick. Well away from the town centre, over Magdalen Bridge in fact, the Ultimate Picture Palace on Jeune Street, Oxford, has been rendered but presents the simple idea on the front of twin exits at the sides and a pay kiosk in the centre. It also shows just how small early cinemas were.

Few of the early cinemas were lavish. Two in Salford, where the buildings are still surviving, although in other uses, illustrate the contrasts. Both were purpose-built, although the `Rex', on Chapel Street, utilised the shell of a disused chapel: the outline of this can be seen on the rear wall. By a quirk of fate this building is again used as a place of worship, now by an evangelical Christian sect. The `Rex' has an elaborate façade in orange terracotta. The other, the Langworthy Picturedrome, has a long wall of brick with raised brick panels on the side facing Langworthy Road. Away from the theatre district in Manchester, a former cinema now a public house, the `Grosvenor' on the corner of Grosvenor Street and Oxford Road, has white terracotta and the design includes a small turret at the street corner.

The public house was one of the chief sources of entertainment in the Edwardian years. The previous part of this discussion of brick in Edwardian Britain mentioned `The Black Friar' public house by H. Fuller Clark which has a splendid sign on the Queen Victoria Street frontage. `The Black Friar' is rather later than many pubs: there was a downturn in this type of building with the onset of the Boer War in 1899. In the four or five years previous many extravaganzas in brick and terracotta had been erected, designed from their façades to tempt the drinkers into the hostelry with the intention of taking their money and giving the clientele an evening away from the still grim realities of working class life.

In provincial cities, public houses went on being built despite the growing influence of the temperance movement. An interesting use of false timber-framing is `The Mere' (also known as `The Mere Bank') in Liverpool, which has a brick dado below an almost continuous line of windows. The windows are separated by vertical columns faced with unglazed terracotta. Glazed and unglazed terracotta are frequently used as embellishments to public houses either designed or refurbished in the period.

Football grounds were rebuilt in these years. The Main Stand at Craven Cottage was built for Fulham in 1905 and cost the then staggering sum of £15,000. Like the Nuttall Street Stand at Exwood Park for Blackburn Rovers, opened on 1 January 1907, it is one of at least eighteen pre-1914 examples of the work of the specialist designer Archibald Leitch, a Scotsman who originally trained in marine engineering. The business end of the stand, facing the pitch, was pure engineering: struts and diagonal braces. The street frontage is ornamental red brick. The formula continued to be used in his post-1919 work, most notably in the 1928 two-tier Main Stand at Ibrox Stadium for Glasgow Rangers, where his earliest design, of 1902-06, survived until major rebuilding of the ground in the 1990s. Leitch had built an early double-decker stand, the Main Stand at Goodison Park, in 1909 for Everton.

On the western edge of the Regent Square development is Salford Lads' Club, purpose-built and opened in 1904 by the hero of the hour, General Sir Robert Baden-Powell. This is in orange-red brick with a lot of specials, particularly round the entrance and the windows.

CHURCHES

Pride of place among churches built in the period must go to Westminster Cathedral, by John Francis Bentley, begun in 1895 and consecrated in 1910. Bentley had been a convert to Roman Catholicism in 1862. His usual style was Gothic but for the cathedral an eclectic mixture of Italianate and Byzantine was chosen. Liturgical and economic reasons have been stated, together with a desire not to compete with Westminster Abbey. But there was perhaps an element of propaganda, too, in the choice of an ultramontane and pre-Gothic style for the Roman Catholic Metropolitan Cathedral. The large-scale building - it is 360 ft (110 m) long by 156 ft (47.5 m) wide - is of load-bearing brick walls using twelve and a half million bricks. It includes a striking square tower, set asymmetrically, and reaching 284 ft (86.5 m) to the top of the cross on the lantern. The two-inch red facing bricks, from Wokingham, are carefully laid in a version of English Garden Wall bond and are backed by LBC Flettons - their first use in a major London building - with an inner lining of yellow-brown London Stocks. On the tower and at other points of emphasis the brickwork is banded with narrower courses of white Portland stone, reminiscent of, and possibly derived from, Richard Norman Shaw's New Scotland Yard (first phase: 1887-90). In the segmental-headed or semicircular windows, Portland stone voussoirs alternate with voussoir-blocks of red tiles set radially. Because of lack of funds, the building has never been finished internally. The darker upper walls of exposed brickwork and the bare surfaces of the saucer-domes, admired by many on account of their "functional" character and mystical quality, were not what the architect intended: all was to be lined with glittering mosaic.

The Church of England

In the Church of England, less money was available for church building than had been generated in the boom years after the Great Exhibition of 1851: the effect on the finances of the Church of England of the Great Depression in agriculture was not felt until about 1895. Architects like Temple Moore, Walter Tapper and Charles Nicholson among London names had to make do with less than the generation which trained them: George Gilbert Scott junior, G.F. Bodley and J.D. Sedding. Minor figures like Arthur Harrison of Birmingham, had even less money available. At St Christopher's, Springfield Road, Sparkhill, the east end of the church of 1906-07 was never finished; where a great window should be there is a blank wall.

Parish contributions sufficed for Walter Tapper's now demolished churches: St Stephen, Grimsby (1911-14), and St Erkenwald, Southend-on-Sea (1905-10), where external walls of brick are relieved only by high windows, very thin at St Erkenwald., Nicholson fared better: essentially

Fig. 3 Westminister Cathedral, designed by J.F. Bentley, in red brick and bands of stone: a tour-de-force of load-bearing brick.

he eschewed the soaring heights and designed low buildings with low heating costs. Two surviving churches by Nicholson in Grimsby are those dedicated to St Augustine (1910-11) and St Luke (1912); both offer a simpler solution in brick.

It is only where a high level of benefaction was available that the architect could let himself go. St Agatha's, built 1896-1900 for Sparkbrook, Birmingham, demonstrates what could be done. W.H. Bidlake used specially-made dark red-brown, thin bricks throughout the exterior of this extremely large church whose tower fronts the street. Even so, bricks of a less rich hue were used for the clerestory: they can only be seen from a bus. A. Beresford Pite had a similar opportunity at Christ Church, North Brixton: his brother-in-law was the rector. He used rusticated brickwork. There is a parish hall behind, with banded brick enclosed in tiered arcading. Pite also added a brick chancel and chapel in 1902 to the brick Holy Trinity, Clapham, of about 1775.

In the affluent creations of the period, like Woodhall Spa, Lincs., one expression of the understated wealth was the Anglican church. C.H. Fowler designed St Peter's in 1893. One feature is the high quality of the bricks themselves in this very wide building, of a broad nave and a broad south aisle. The fenestration uses a multiplicity of special bricks.

Roman Catholic Churches

The Roman Catholic churches built in the twenty years before the Great War were often finished externally in rendering or pebbledash. Examples include St Gregory and St Augustine of 1911 at the northern end of Woodstock Road, Oxford, by Ernest Newton, and the incomplete one at Letchworth on the Baldock to Hitchin Road, well away from the bustle of the town centre.

Nonconformist Buildings

Other than the Anglican and Roman Catholic persuasions, one form of the church building of the 1900s is characterised by large complexes in the centre of big cities. There is a large hall with a gallery capable of seating two thousand, at least two small halls, office accommodation for church purposes and the whole is wrapped within a street frontage containing shops and offices. The rents from the commercial lettings paid for the upkeep of the building. This is irrespective of demonination: the Leysian Mission, City Road, Finsbury of 1903, and the Salford Central Mission (1907) were built by the Congregational Church but Methodist central halls abound, especially in Lancashire: Manchester had two. The Central Methodist Hall in Birmingham, of 1903 by E. and J.A. Harper, has a prominent tower clad in unglazed red terracotta. A surprisingly late example of 1932 in Coventry, designed by C. Redgrave, could have been designed twenty years earlier.

Completely different is Alfred Marshall's Darlington Street Methodist Church in Wolverhampton, designed in 1899 and built 1900-01.The east and north fronts face the street and have Palladian windows at the gallery stage picked out in stone columns which themselves alternate circular with square sections in the manner of the window surrounds of the Palazzo Thiene, Vicenza, Italy, designed by Andrea Palladio between 1542 and 1553. The west side of the Wolverhampton church has another Palladian window but this being originally away from direct view is unadorned by stonework; the bricks on this wall are common bricks not facing bricks. This church has two towers at the north front, akin to the corner towers of mid-eighteenth-century brick houses like Hagley Hall, Worcs. At what would be the crossing space, there is a raised dome, far larger and far higher than that which J.C. Topping placed over the centre of Chorley Old Road Methodist Church, Bolton, Lancs., in 1903.

The conventional design is a large chapel with schoolrooms to the rear; unusually at Rugby Baptist Church of 1905 the schoolrooms are to the side. This church was built in a deep red brick, with a large stone window in the centre of the entrance front and a squat tower to the left-hand side of the entry.

Bury Park Congregational Church, Luton, built between 1893 and 1903. The entrance front is dominated by a broad seven-light window with to the north-west a cambered tower capped by a spike. In light red brick, there are many stone dressings to windows, doors, and parapets. The church is of many designed by the architect George Baines. Beginning with the Baptist Church, Cannon Street, Accrington, of 1874, in a career spanning almost sixty years, Baines designed for all the principal nonconformist demoninations and his work, in brick with stone dressings, can be found in many urban environments. In south London, two are the Methodist Church of 1900 on Fentiman Road, Lambeth, and the Baptist Church, Mitcham Lane, Stretham, completed in 1903. Another example of his work in Luton, also in brick, is the schoolroom of 1908 added to the Ceylon Baptist Church, Wellington Street.

Outside the mainstream demonimations, Edgar Wood was commissioned by the First

Church of Christ in Manchester to provide new buildings, now used as the Edgar Wood Centre of the Victoria University of Manchester, on Daisybank Road, Victoria Park, Manchester, in 1904. Usually considered for its planning and novel fenestration, both of which utilised features from Wood's earlier church, Long Street Wesleyan Church in Middleton, Lancs., the First Church of Christ Scientist has rather rough brickwork laid in variety of bonds depending on the specific feature. Header bond is used for circular towerlet, while the body of the church is in a mixture of Flemish bond and stretcher bond.

EDUCATION

Schools

In Education, the Edwardian Age included a great transition in the provision of schooling for all. The Forster Education Act of 1870 had made provision for the state to be officially involved in Education through the establishment of urban School Boards which provided schooling for children aged between five and originally twelve, later raised to fourteen but with the last years not always strictly enforced. One of the features of the Balfour Education Act of 1902 was the transfer of responsibility from the school boards to education authorities, usually but not in London, a committee of the local county or county borough council. This transfer has at least two building implications.

The first is that the School Boards had to spend up their accumulated reserves or see their surpluses swallowed by the general funds of the successor authorities. Thus a large number of schools were built between 1899, when the idea of an education bill was first mooted, and 1904, when the act was implemented. Often these are innovative in their design detail, as with the terracotta-clad former Halton Bank School, Bolton Road, Salford. Even more inventive are the schools designed in the office of W.H. Brierley in York.The schools on Poppleton Road and Haxby Road, both opened in 1904, develop themes first seen in the Scarcroft Road School of 1896:

On the whole the school boards had had a good tradition of building functional buildings, following the lead set by the London School Board. There are delightful single-storey brick buildings in the 'Queen Anne' style: of 1883 at Westgate, Warwick, and later but undated, for Yardley School Board on Stratford Road in Hall Green, Birmingham. In a totally different tradition, there are solid buildings in Salford. Langworthy Road Board School of 1899 s a big-bone building with acres of glass set in a carcass of deep purple brick.

Much if not all of this tradition was lost when Board Schools became Elementary Schools. In 1904, the borough surveyor, J.W. Cockerill in Great Yarmouth designed the St George's Schools in the tradition of large windows and sensible brickwork for the Great Yarmouth School Board. The brick is light red. However, elsewhere in the town the constraints of the Central Board of Education can be sen to take over with the deep red brick and buff terracotta premises of the Edward Worrledge School, Lichfield Road, Southtown, built just before the Great War. In red brick with much yellow terracotta is the complex of infant and junior schools in Springfield, south Birmingham. The style and materials surface in many schools: another example is the Radcliffe Schools, Ordsall, Salford, built after the Great War.

There are still some schools which get away from this completely. Two remarkable schools in Middleton, Lancs., were primarily the work of James Henry Sellars although the man with whom he shared an office, Edgar Wood, had some influence over the designs, particularly the Elm Street School. Like .the Durnford Street School, the Elm Street School was built between 1907 and 1910 for children aged five to fourteen. While sharing many features, such as squat towers of brick, they exhibit significant differences both in plan and their brickwork.

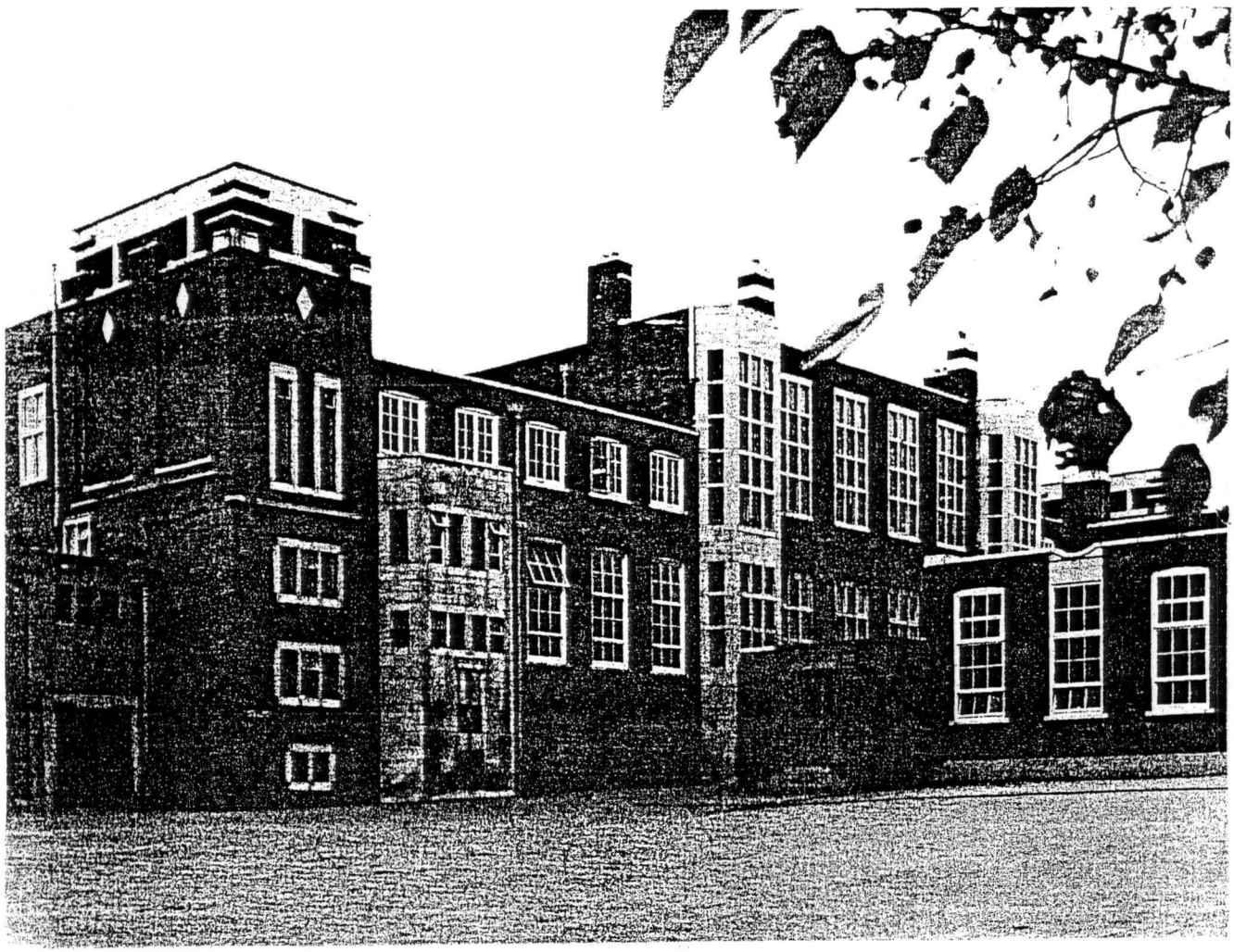

Fig. 4. Durnford Street School, Middleton, Lancs., of 1907 to 1910, designed by J.H. Sellars, in collaboration from Edgar Wood shows complex massing of forms with brick predominating in the finished building. It is a much finer building than was often provided in the 1900s for an elementary school.

At Durnford Street, the load-bearing brickwork is a soft orange-red brick which is accentuated only by the stairwells faced in Portland stone. The big hall of the Elm Street School has high round-headed windows with almost no accent save a keystone although they are slightly recessed. The hall stands proud above the semi-circular entrance court.

To extend the education open to talented but poor children, Higher Grade Board Schools were instituted in 1894: curriculum emphasis was on the practical. Only a few were built; most were of brick but some tend to economise on style. That in Salford has high north-facing windows set in dull orange-red brick. In contrast, that in Moor Street, Bolton, one of the many competition successes of a local architect, R. Knill Freeman, is generous but not overpowering in its use of the red terracotta trim and is one of the few buildings whose red brick rear elevation is as fine as its street façade.

Implementation of the Balfour Education Act of 1902 led to the building of grammar schools for children aged (originally) twelve and over. These were a very different type of secondary school, the grammar school, which as its name implied emphasised the academic.

Some used the existing buildings, as happened in both Salford and Bolton.

The building programme merely filled in the geographical gaps. In Norfolk, new schools are built in East Dereham, King's Lynn and two in Norwich but existing schools were utilised in Swaffham, Thetford, Wymondham, North Walsham or Great Yarmouth. Rarely, high quality architects were appointed. Basil Champneys at King Edward VII School, King's Lynn, produced one of his best buildings even at sixty-five but here the costs were borne by a successful old boy, W.J.Lancaster. The bricks used were Bawsey Bricks in a rich russet brown. More often the design with the lowest cost was accepted, as with the original building for Luton Modern School, Park Square, Luton, by another specialist firm, Spalding and Saplding: severe disquiet about the suitability of the design appeared in no less august a periodical than *The Builder* in the issue of 3 March 1906.

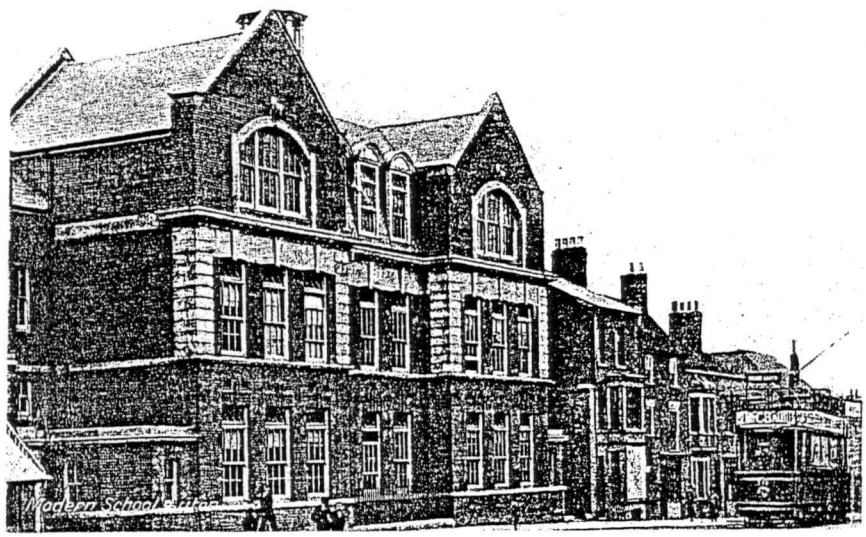

Fig. 5 The buildings of Luton Modern School facing Park Square, Luton, Bedfordsire, built in 1907-08 to a design by Spalding and Spalding of London.

Few grammar schools were actually built between 1904 and 1912. In many of them, often one senses a poverty of architectural aspirations. That at Alcester, Warwks., has very little brick visible externally: apart from small groups of red bricks at the corners, the upper floor is covered in pebble dash and the ground floor while of brick seems to have had little care taken with its construction. The small one in Towcester, Northants., provides another essay lacking in toleration of higher aspirations. The former grammar school in Lowestoft, Suffolk, (now Denes High School) is brick throughout but the design in a debased 'Queen Anne' style is cramped. The upper floor has low ceilings and internally the brickwork is exposed throughout, although much is now painted white. For both the girls in Norwich (now the Blyth-Jex School) and both genders in East Dereham, tall gaunt brick structures with little hint of adventure were provided. The boys in Norwich (now Eaton (City of Norwich) School) had the advantage of being a new building for an established school; the result, in dull red-brown brick, is much more pleasing.

Technical and Art Institutions

Increased requirements for technical education resulted in the first technical colleges being built. The earliest one in Lancashire is contemporary with the Technical Instruction Act. At Blackburn designed by the Manchester architects Smith, Woodhouse and Willoughby in 1888, a band of

yellow terracotta panels placed high up accentuate the red brick, the main building material. This accent on subjects covered in the curriculum offered, repeated at Barrow-in-Furness in 1900 by the same firm, is translated into panels of unglazed red terracotta at Royal Technical Institute, Salford, by W.H. Lord in 1896. Grander than these is the building originally called Manchester Technical School facing Sackville Street. Won in competition by London architects, Spalding and Cross, in 1895 and completed in 1912, it uses buff terracotta accents against red brick and green tiles, with capping one pitched roof a purpose-built astronomical observatory..

Purpose-built art colleges became a feature of leading towns: the most famous building of the age must undoubtedly be the Glasgow School of Art but Charles Rennie Mackintosh's masterwork is externally of stone although exposed brick was used in the loggia of the third floor: this has now been painted over. On a more modest scale are art schools built in brick. In Hull, Lanchester and Rickards provided top-light studios on the first floor thus necessitating large areas of external brickwork. In contrast both Bedford and Kitson in Leeds and J.W. Cockrill in Great Yarmouth used walls of glass to light the studios. Cockrill employs engineering brick to relieve the starkness of the red brick construction. This is very clear on the south wall; the north wall is almost entirely of glass.

Universities

Universities begin the era of 'Redbrick'.: the term was meant to be derogatory. It was coined from the buildings at Birmingham University. Like other universities built in the period - *e.g.* Cardiff and Liverpool -the buildings at Birmingham were for teaching and administration only with minimal recreational facilities for the undergraduates. The Birmingham buildings are in bright red facing brick with Darley Dale atone dressings.

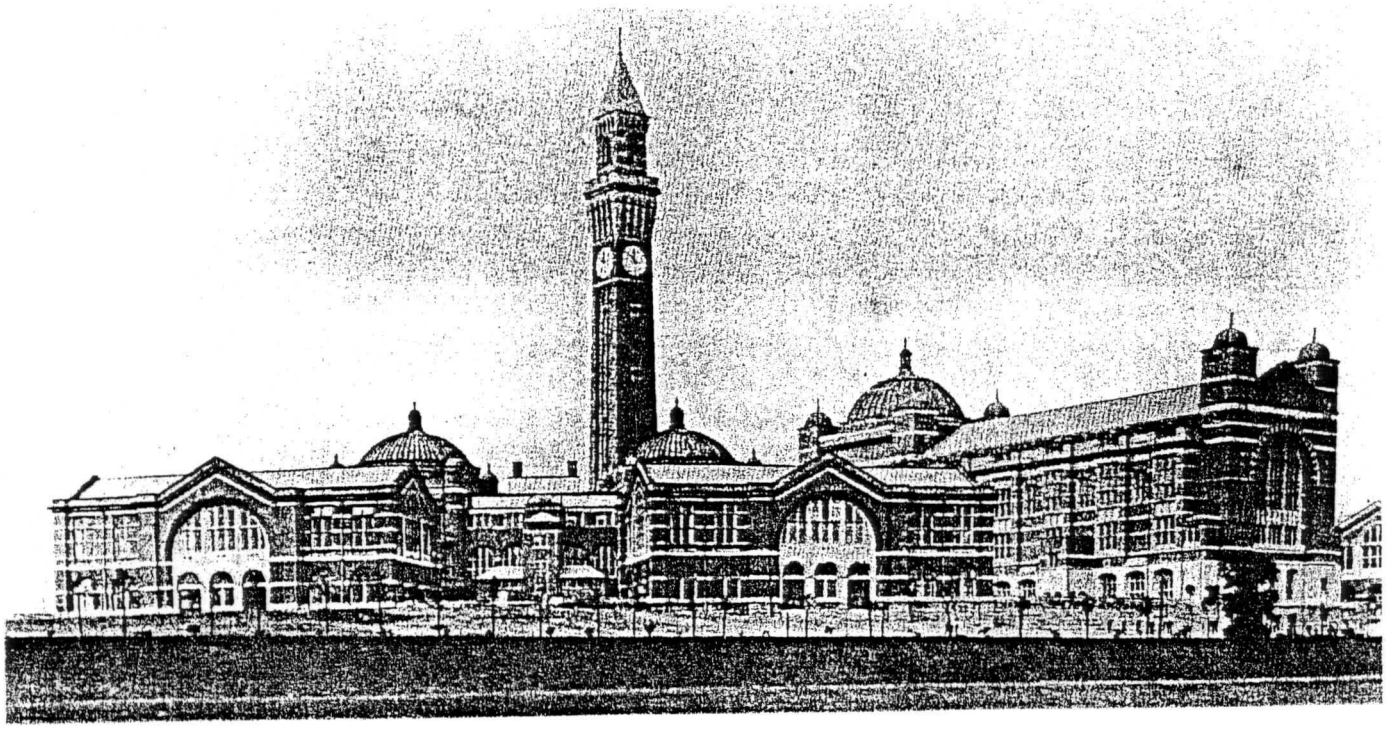

Fig. 6 Birmingham University in red brick, from the lower level to the south. This is the view one has from the Bristol to Birmingham railway line, now with later buildings also on the site.

Designed by Aston Webb and Edward Ingress Bell, work on the site began in 1900 and phase one, the only part constructed to Webb and Bell's design, was completed by July 1909. As many have commented, these remain the best buildings on the site. Cleverly taking advantage of a sloping site, the plan had two basic elements: a semi-circle of two-storey teaching pavilions with a three-storey Great Hall in the centre and a great tower in the courtyard. Only the tower, the great hall and three of the intended six pavilions were ever constructed. Those built were for engineering and electrical science, chemistry and physics, thus fulfilling the concept of

> all the departments necessary for the purpose of a modern university devoted to scientific instruction in many subjects and especially those which have a bearing on the several trades and manufactures of the Midlands.

Based on the Mangia Tower, Siena, the tower, which was for materials testing, soon became a terminal for a wireless transmission: physics was a strong element of the university which had developed from Sir Josiah Mason's Science College of 1880 and whose first vice-chancellor was the physicist, Sir Oliver Lodge.

Lodge came from being Professor of Physics at Liverpool University College, as it then was. On the wall beside Brownlow Hill, Liverpool, let into the red brick of Waterhouse's original building (1887-92) is a powerful reminder of the purpose of a university:

> In 1887 the men of Liverpool
> raised this University College
> for the advancement of learning
> and the ennoblement of life.

Waterhouse chose Gothic for his style and brick and terracotta for his materials. Into the rich mix of disciplines already pursued was inserted the country's first school of architecture and applied arts: a potent source for the future. Founded in 1895, the school contributed little to the university's new buildings until Charles Reilly's Students' Union of 1913, buff brick with stone dressings and two completely different façades: quiet and backward looking for the distaff side but that to Bedford Street for men presaging a more strident future. But in its first quarter century, the biggest building commissioned for the university, the Faculty of Arts of 1913 forming part of a quadrangle with Waterhouse's work, came from Briggs, Wolstenholme and Thornely, mostly Arnold Thornely of Liverpool. In a lighter brick, the match has worn well: it is not yet completely classical in inspiration.

At Manchester, the metallurgy building (1908) is delicate and understated in red brick and stone by one of the best but least recognised of Manchester's architects, Charles Heathcote. Other buildings of the period continue with the stone of Waterhouse's Oxford Road buildings.

After Butterfield's experiment in polychromy at Keble College (1868-82), men's colleges in Oxford eschewed brick; not so the societies for women, e.g. Somerville and St Hugh's. Better than the buildings at either, those at Lady Margaret Hall by Reginald Bloomfield, dating to 1896 and 1910-15, in brown brick but with possible over use of stone dressings, are the most notable. They have importance from being a model for the buildings of teacher training colleges in the 1930s and 1950s, the latter usually much less opulent in their financing.

Cambridge too had its women's colleges, again in brick: the lightness of touch deftly displayed by Basil Champneys at Newnham College in 1875 continued in his work there up to 1910. At Girton College, Paul Waterhouse offered a different lightness, extending his father's first buildings for the college but toning down the redness of the brick. In the men's colleges, the best brickwork of the period is in designs by the Chester firm of Grayson and Ould; the hall at Selwyn College is good but their work at Trinity Hall is outstanding: it is just beautifully laid brickwork. Grayson was an Emmanuel man.

Brick for women's colleges is a recurrent theme; the former Bedford College in Regent's Park, part of the University of London, is by Basil Champneys (1910) and a reworking of themes

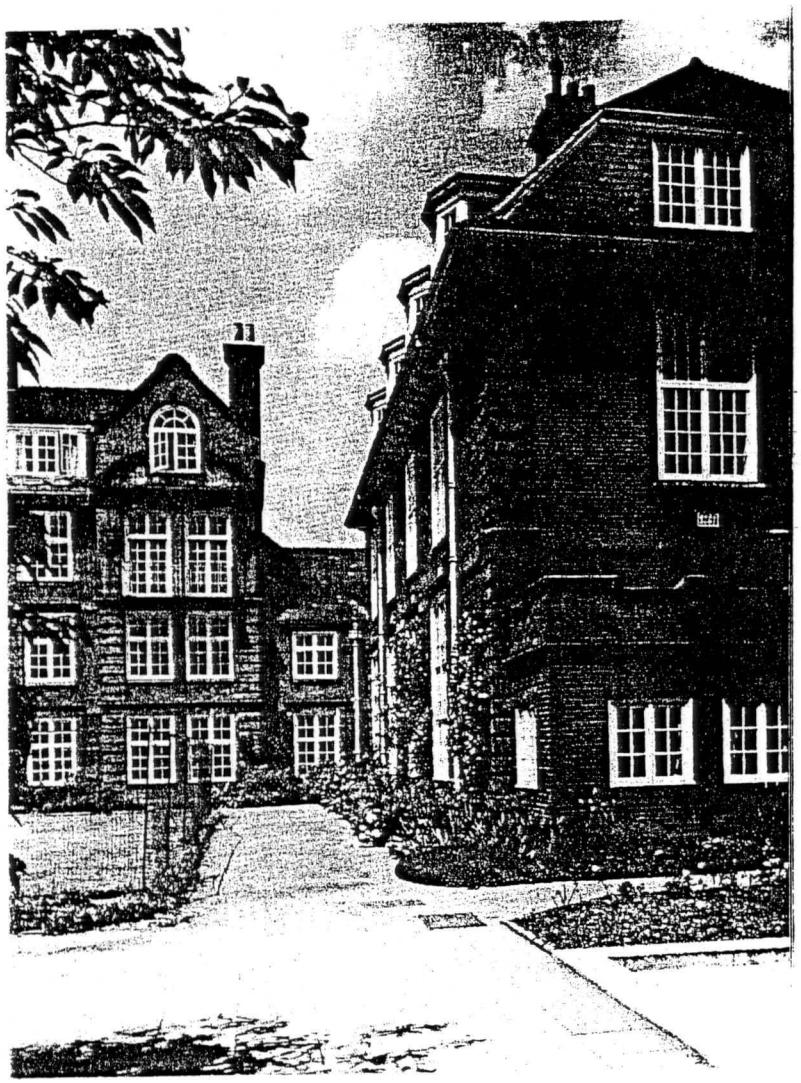

Fig. 7. The buildings for Bedford College, Regent's Park, London, by Basil Champneys, are a late work of 1910. Many of the details pick up themes employed by the architect at Newham College, Cambridge, another college for the univeristy education of women. Later work at Bedford College by S.J.R. Smith can be seen in the background.

employed at Newnham, Cambridge: red brick, rusticated corners, gables above broken pediments, tall white windows with many small panes.

Wales had only one university, Prifysgol Cymru, then with only three colleges, in Aberystwyth, Bangor and Cardiff. Good buildings were erected at Bangor, collegiate Tudor in stone of 1907-10 by H.T. Hare, the library specialist. The science laboratories, by A.E. Munby, a specialist in this field, were designed on the eve of the Great War. These are in brick and built later..

At Cardiff, there were always two sites: the engineers out on Newport Road in non-descript brick of the 1880s with additions from every decade since but the pure scientists and arts people gained a new building in the civic centre of Cathays Park, an area where externally brick is totally absent. W.D. Caroe's building was designed in 1903, with the first part, facing the central green of the civic centre, opened in 1909. Physics laboratories added as the north wing in 1912 In 1960 it achieved its incomplete final form. Caroe died in 1938 and finishing this took up much of his son's career. There is exposed brick throughout the interior, much of this glazed brick in a dazzling array of mainly rather sombre colours.

Fig. 8 Trinity Hall, Cambridge. The most graceful of the Edwardian contributions to college buildings in the university was designed by G.H. Grayson of the Chester practice of Grayson and Ould, giving us one of the best examples of high quality bricklaying in a period when standards of bricklaying were high..

CONCLUSIONS

W.D. Caroe is a good representative of the men whose work has been discussed in both this and the preceding account of brick and its uses in Britain between 1895 and 1919. He designed University College, Cardiff, when at the height of his powers: he was forty-six. He had had twenty years of independent practice: his first commission, the Swedish Seamen's Church in Liverpool (1883-86) is in brick and he was one of the many architects whose work used brick to make London a more attractive city. In 1903, he was also designing the Offices of the Ecclesiastical Commissioners and Church Estates: it is so wild, yet so controlled in its use of brick, and with so many references. The building is so unexpectedly glorious, no-one would dare a century later, but it is equally typical of the period: an asymmetrically placed staircase tower where the fenestration seems to climb in unison.

Architecturally the period followed a broad eclecticism in the styles encouraged: no one

style was dominant nor a sole style approved. Edwardian Baroque, in stone, had a certain appeal for important civic buildings, and even quite minor ones such as the Magistrates Courts, Horninglow Street, Burton-upon-Trent, Staffs. And as the new style in stone of stripped classicism became more abundant, it was adopted for office blocks, such as the Cunard Building on Liverpool Pierhead, as well as for town halls like St Marylebone. But that aside, two features stand out from the mass of building activity in the twenty years before the Great War. One, emphasised in both parts of this overview of developments in the use of brick and terracotta, is that London had no monopoly of architectural ideas. The second, even more striking, is that a new *brick* universe was being created.

ACKNOWLEDGEMENTS

Many people have contributed to the material and ideas in this paper. As with the earlier part, I thank members of the British Brick Society for their comments on buildings seen on meetings held by the society.

Terence Smith kindly provided text on Westminster Cathedral, a building with which he is far more familiar than I am.

NOTE ON SOURCES

Much of this paper has been written from direct fieldwork: in various Lancashire cities and towns, in the mid 1990s; in Luton, as long ago as 1971 and throughout the 1970s; in Birmingham and Coventry, in the late 1990s; in Great Yarmouth and Norfolk in the 1970s and 1980s. I actually taught in the school cited in Lowestoft, both in 1981 and again in 1988.

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G.C. Peck, *Bedfordshire Cinemas*, (Bedford: Bedfordshire County Council, 1981).

A. Service, *London 1900*, (as above).

Churches

N. Pevsner *et al.*, *The Buildings of England: ....*, (Harmondsworth: Penguin Books, 1st editions 1951-1974; 2nd editions 1965 to date). But note: information about Edwardian brick churches in the earlier volumes is often less full than one would sometimes hope.

Education

M. Seaborne and R. Lowe, *The English School Volume 2, 1870-1970*, (London: ,1973)

B.M. Vickery, *Buildings for Blue Stockings*, (New York: Amherst College Press, 2000).

British Military Bricks in Corfu

Michalis A. Bardanis and Ronald Firman

INTRODUCTION

This note began as a query from Michalis Bardanis, one of the members of the British Brick Society, to the society via Dr Firman as the society's Enquiries Secretary. A slightly modified version of the enquiry is printed together with the reply sent by Ronald Firman. Any members who could shed further light are asked to contact Mr Bardanis at Voriou Ipirou 85, GR-10444, Athens, Greece.

A BRITISH MILITARY BRICK FROM CORFU

Sometime during 1998 when I was working on an MA thesis entitled `Brick Architecture in Nineteenth- and Early-Twentieth-Century Athens (MA, Conservation Studies University of York), the architect Aris Masouridis, who has a collection of bricks of that period, showed me a brick from Corfu, Greece.

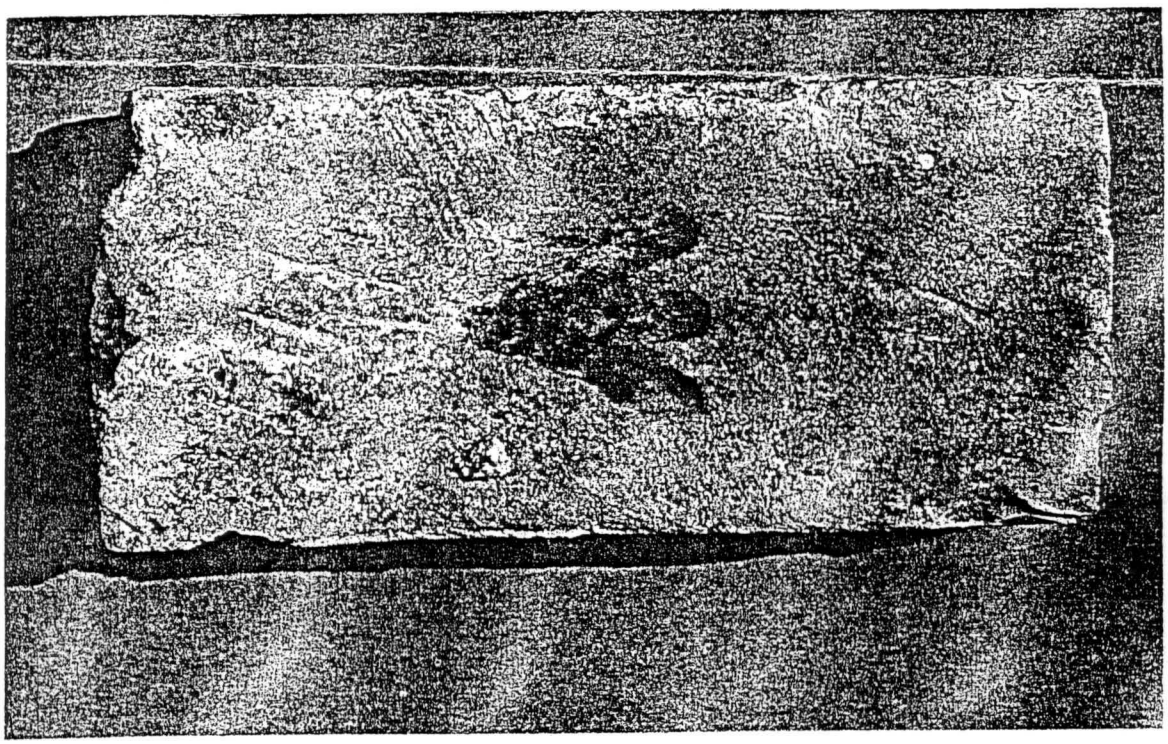

Fig. 1 Brick from Corfu, showing arrow mark.

The brick (fig. 1) is from the British Military Hospital which was built in about 1835.Its dimensions (225 x 105 x 60 mm) and the lack of a frog are not the typical example of a Greek brick of that period. Additionally, the mark, an arrow, has been suggested as that of the British army and that the hospital was built of Greek bricks in "British style", according to the instructions of the architect.

On the other hand there is written evidence that bricks were carried from abroad, possibly from Italy, during the early years of the neo-classical revival in Greece, until about 1850.

The purpose of the query is elicit information about British 'Military' bricks. Is it possible that these bricks were made in Corfu under British supervision, or were they imported from Britain. Chemical analysis may provide some answers but has yet to be undertaken. It would also be interesting to know of the transport of other bricks to Greece from abroad.

MICHALIS BARDANIS

BRITISH BRICK EXPORTS

British-made bricks were undoubtedly exported far and wide in the nineteenth century, for example to the U.S.A.; by Hudson's Bay Company to Canada; to Jamaica, especially at a slightly later date after the earthquake of 1907 as they had been after the Port Royal earthquake of 1692; and to Australia. Many of these exports were 'specials', such as refractory bricks which could not be made locally, although no doubt some were common building bricks sent to places where either suitable clays or expertise or both were unavailable.

BBS member, Brian K. Pegden in a table with attached notes which was first published in *BBS Information,* **19,** November 1979, and reprinted in *British Brick Society Information Compilation Volume I 1973-1981,* 1988, pages 47-50 showed that in 1804 large quantities of building bricks were purchased by merchants acting for the Board of Ordnance (*i.e.* the military) in and around London for dispatch by boat to Kent and Sussex, and perhaps also Essex and Suffolk, for the construction of fortifications. A further reference is an article by S.G.P. Ward on 'Defence Works in Britain 1803-5' in *Journal of the Society for Army Historical Research,* 1949. Admittedly these were relatively short distances for the shipping of bricks for military purposes, but it at least illustrates that the military did ship bricks when the need arose.

Mr Bardanis is probably right in claiming that the broad arrow impress on the Corfu bricks is indicative of the British army. Strictly speaking it is indicative of British government property, best known for its use on prisoners' uniforms and the lavatory paper in Civil Service establishments! It is rarely used nowadays. Personally, I have never seen it on bricks though, given that it was thought to discourage thieves the army might well have insisted on its use in Corfu whether the bricks were made locally or imported.

My personal knowledge of the geology of Corfu is insufficient to tell whether the brick clays were sufficiently chemically distinct to distinguish them from likely British source materials or if the resulting bricks are chemically distinct. The U.K. experience has been that chemical analyses need to be supplemented by mineralogical and petrological analyses if one is to stand any reasonable chance of deducing the probable provenance.

RONALD J. FIRMAN

BOOK REVIEW

Elizabeth McKellar, *The Birth of Modern London: the Development and Design of the City 1660-1720.*
xviii + 245 pages, 59 black and white illustrations.
Manchester and New York: Manchester University Press, 1999.
ISBN 0-7190-4075-2 (hardback), 0-7190-4076-0 (paperback); price £45-00 (hb), £17-99 (pb).

The title of this work, based on the author's PhD thesis, is, perhaps, a little misleading: the book is concerned not with large-scale and familiar public buildings, but almost exclusively with housing, most of it speculative and on a fairly small, 'urban vernacular', scale. Its approach is

inter-disciplinary, and the author is "only too painfully aware" of the "many pitfalls and perils" of such an approach (p.2). The book is an assessment, indeed in many ways a *reassessment,* of the London building world in the late Stuart period, in an attempt (largely successful) to avoid the error, sometimes committed in the past, of reading back into that period conclusions reached in connexion with the later Georgian period. In this, Dr McKellar's use of primary sources has been of the utmost importance.

The Introduction sets out the general approach to be adopted and identifies some opponents. It displays an impressively wide-ranging familiarity with the relevant historical and historiographical literature. Here, as throughout, opponents (such as the late Sir John Summerson) are treated with courtesy and respect. The text, indeed, is a model of how disputes may be entered without rancour or the mere scoring of points.

The book divides into two principal sections - `The Development of the City' and `The Design of the City' - although chapters are numbered consecutively. Throughout, the word "city" refers to the metropolis as a whole, not just to the City of London.

Chapter 1, `Surveying the Scene', is a fairly rapid survey of the phenomenal growth of London during the Stuart period, and more particularly in its latter half. Chapter 2, `The Developers', argues against Summerson (*Georgian London*) that the development of London in the period was not typically in the hands of aristocratic estate owners. The situation, Dr McKellar argues, was far more complex, with development largely in the hands of humbler men, the aristocracy playing for the most part only a passive role. It is a convincing argument, well supported by reference to both primary and secondary sources. Chapter 3, `Creating the City', explores further the work of the developers, emphasising that "most developments operated through a complex web of financial and contractual arrangements with many intermediate levels and half levels" (p.61). Throughout the chapter, the unattractive but important figure of Nicholas Barbon plays a large part, as indeed it must.

Members of the British Brick Society will perhaps be most interested in Chapter 4, `Constructing the City', for it is here that building materials are considered. Unfortunately, in the discussion of brickmaking and the supply of bricks (pp.71-75) the inter-disciplinary approach begins to falter. The study treads some familiar ground though with long strides. Some interesting points of detail are added, but, it must be said, the discussion does little to further understanding of the topic. There is much to be gained even from well-established secondary sources (Nathaniel Lloyd's study of brickmaking does not appear in the bibliography, although his study of the English house does) and much to be learned too from more recent archaeological investigations, not least about changes in manufacturing methods - which go beyond the simple addition of "Spanish" (p.74) to the raw material - following the Great Fire of London in 1666. Perusal of the bibliography, in fact, suggests that "inter-disciplinary", whilst including social, economic, and architectural history, does not extend to archaeology. Dr McKellar's explanation of the terms "stock brick" and "place brick" (p.72) derives from Isaac Ware's statement of 1756 and thus falls into that very error against which she warns: of reading back from a later to an earlier period. A source - Richard Neve's *The City and Country Purchaser* .... - of which she is certainly aware provides a more adequate understanding of the terms as used in the period. Imported bricks, which were sometimes used in late Stuart London, receive no mention; nor do those softer, redder bricks brought in from elsewhere (principally Kent) in large numbers because the London-made products were unsuitable for cutting and rubbing. The chapter also includes a discussion of timber. But other materials are dismissed rapidly, on the grounds that the London house of the time was basically a brick and timber structure. True enough, but it would have been useful to consider roofing materials - pretty important on any building. Pantiles, for example, show an interesting social division: they were largely confined to low status buildings, a situation unwittingly illustrated by Dr McKellar in her chapter 8. On the other

hand, the social superiority of slates over plain tiles does *not* appear to have been established by this period. Discussion of these issues would have been interesting and valuable.

Chapter 5, 'The Builders', argues cogently that the concept of the Master Builder, usually reckoned a nineteenth-century phenomenon, in fact goes back to the late Stuart period. Of particular interest to members of the British Brick Society will be the fact that many of the craftsmen involved as entrepreneurs were bricklayers by trade. The importance of numeracy and literacy among these men is stressed: an illiterate man was liable to be cheated, as happened to the unfortunate Thomas Slaymaker (p.109).

Part II of the book considers the design process of the London house. Chapter 6, 'Conceiving the City I' , warns against reading back modern architectural methods into the late Stuart period and against judging common practice - within speculative building - from what is known about the procedures of great figures such as Wren and Hawksmoor (though not, interestingly, Vanbrugh). Specifically, it is argued that drawings were used to attract and inform clients, but were not used as working drawings on site. Chapter 7, 'Conceiving the City II', considers the role of books in disseminating design ideas, whilst also adding informative notes on building terminology of the time. The chapters point forward to Chapter 8, 'Housing the City', from which it emerges that it was largely the houses themselves that provided the models for other houses, and the process was far from being book-bound. Houses were often 'classically incorrect' from a later (fundamentally Palladian) standpoint, but to apply this judgement is to ignore what the builders were trying to do. As Dr McKellar emphasises, you can only be 'incorrect' if you are trying unsuccessfully to be 'correct': the houses were "not products of a misinterpreted or undigested classicism for that was not their aim" (p.184). Four house types are identified, ranging from the revolutionary new type developed by Nicholas Barbon and others, mostly in the West End, to a hybrid type which retained much of the vernacular tradition and was confined to what were then outer areas of London, such as Hoxton.

Chapter 9, 'Open Spaces in the City', considers the role of squares, gardens, and other open spaces. Modern conceptions of 'urban' and 'rural' did not apply: the countryside was, in a sense, *within* the city - *rus in urbe*. Squares were regarded as *public* spaces, and only in the Georgian period did they attain that aspect of privacy which most still retain.

There is a brief Conclusion, usefully summing up the burden of argument in the book, an Appendix, which transcribes schedules attached to a building lease illustrated in fig. 10 (p.125), a Select Bibliography, and a fairly full Index.

This is not always an easy book to read: the situation with which it is dealing was itself complex and there is the added difficulty of having to rid oneself of a number of received ideas. The design process in particular was so different from that which operates today that it is impossible, in a sort of Collingwoodian fashion, to 'think the thoughts' of those whom one is studying: empathy with them is achieved, therefore, only by an effort of mind, and can never be complete. It is to Dr McKellar's credit that, although one notices a few slips in the English, the text is for the most part written lucidly, difficult matters dealt with as clearly as possible. The book is indispensable for anyone wishing to understand the London - and indeed the English - building world of the late Stuart period.

TERENCE PAUL SMITH

Brick and Tile in Print

From time to time the British Brick Society receives notice of short publications, either as booklets or articles in periodicals, which are worthy of notice in *British Brick Society*

Information. Members involved in publication or who come across items of interest are invited to submit notice of them to the editor of *BBS Information.*

1. Graham Brooks, 'Cumbrian Brick and Tile Works: North Cumbria',
The Cumbrian Industrialist, **3,** 2000, pages 49-59.
Available from G. Brooks, Coomara, Carleton, Carlisle, CA4 0BJ, price £5-00.

Modern Carlisle is a largely brick-built city, and documentary evidence of brickmaking is available from the seventeenth century onwards. The gazetteer lists twenty-five sites with their users and dates of production, illustrating brickmarks for six of these and a letterhead for another. Additionally there are lists of sites without a known user and of brickmakers without a known works; the latter may have been itinerant. Two bricks are illustrated from men with a known address which may not be the place of brick manufacture.

The relationship between bricks and building firms is brought out by the references to Laings, now a worldwide construction firm but before the Great War merely a local Carlisle builder. They had their own brickworks as early as 1880, moving to a new site in 1892 which lasted until the late 1930s. In addition Laings opened Brisco in 1936 to make sand lime bricks, which when local sources of sand were exhausted has continued with imported raw materials.
DAVID H. KENNETT

2. Hans van Lemmen, *Medieval Tiles,*
Princes Risborough: Shire Publications Ltd., 2000, ISBN 0-7478-0463-X price £4-50.

This booklet is one of a series from Shire on decorative tiles. It begins with an outline of manufacturing methods and (some aspects of) trade in floor tiles in medieval England. Various tile types are then considered in chronological order. A final section looks at nineteenth- and twentieth-century reproductions: the space (one fifth of the total) might better have been used for an outline of commercial organisation in medieval England - the so called 'Westminster' tiles, for example, or distribution from various manufacturing centres (Bawsey, Norfolk; Danbury, Essex; or Tyler Hill, Kent, say) - and for a consideration of late medieval imported tiles, a topic dealt with only briefly and with notable omissions. There is a short bibliography and a list of places to visit. Attractively presented with numerous colour photographs and some black and white illustrations, the booklet is a brave attempt to get several quarts into a pint pot and will doubtless prove a quite useful little primer.
T.P. SMITH

3. A.J. Mugridge, *A Short History - William Exley & Sons,*
A.J. Mugridge, 1997, price £2-00.
A.J. Mugridge, *Maw & Company 1850-1969 A Short History of the Celebrated Encaustic Tile Manufacturer,*
A.J. Mugridge, 4th edition, 1997, price £1-50.
Both available from A.J. Mugridge, Broseley Brick & Roofing Tile Manufacturer, C24, Maws Craft Centre, Jackfield, Ironbridge, Shropshire TF8 7LS
or A.J. Mugridge, 27 Garbett Road, Aquaduct, Telford, Shropshire TF4 3FX

BBS member Tony Mugridge has been involved since 1984 in publishing the social and industrial history of Shropshire, the latter concentrating on mining, printing and the heavy clay industries. Of these two titles, that on *Maw & Company* was first issued by the Orchard Press in 1986. The two booklets record the history of two manufacturers of tiles and, in the case of Exley, bricks in Jackfield, an industrial suburb within the Ironbridge area. Maw and Company were in Jackfield from 1852 and the Rock Meadow brickworks at Jackfield was already well-

established by the time William Exley, a stonemason and trow-master had acquired it: Exley is first noted on the tithe apportionment map of 1840. Exley's already extensive interests were enlarged by the building of a larger tile factory on the north-west side of Rock Meadow, beside the Knowle claypit, which Exley owned. One of the products of the old works was glazed tiles; Exley's tiles of 1844 grace the floor of the rebuilt All Saints' church, Broseley.

From 1844 to 1914, the works expanded, acquiring more modern machinery under William's son, Joseph Exley, making it with Maws among the major manufacturers of tiles in England. Conversion to the use of electric light in the 1930s permitted longer working hours, especially in the winter months. However, the onset of war in 1939 meant the virtual end of tilemaking by Exleys. The post-1945 story is intermittent with a polluting fuel which led ultimately to demolition of all structures and the site becoming a sewerage treatment farm.

Both works had struggled in the difficult years after the Great War. Maws bought their coal and clay from Exleys from 1922 to 1940. The firm was not geographically well placed to withstand the Beeching axe on the railways which removed the major transport link of the Ironbridge Gorge. Closure of Maws works was followed by partial demolition until a change of policy by Telford Development Corporation left a third of the buildings standing. These became used for light industry, now called the Maws Craft Centre.

DAVID H. KENNETT

4. Brian J. Murless, *Somerset Brick & Tile Manufacturers A Brief History & Gazetteer,* Somerset Industrial Archaeological Society, 2000: 54 pp.7 pl., 15 fig.. price £3-00
Available from Derrick Warren, SIAS Publications Officer,
52 Stoke Road, Taunton, Somerset TA1 3EJ

This booklet reprints in a new format (A5 rather than A4) a booklet which first appeared in 1991 (reviewed in *BBS Information,* **55**, 17-19). Somerset is defined as the historic county.

There are additional illustrations,. and the cover of the works catalogue of William Thomas of Wellington is shown in full, rather than just the picture showing the layout of the works. Reproduced again is a splendid letterhead of Richard Vining of Yeovil, a brick, tile, chimney, seakale and flower pot manufacturer who also made malt kiln bricks and could supply building and paving stone from the Yeovil Quarry. His works was attested in trade directories issued between 1840 and 1861.

If the older edition is not on your shelves, or even if it is, this is a most useful addition to the studies of brickworks in individual counties.

DAVID H. KENNETT

5. Terence Paul Smith, `London's earliest medieval roofing tiles: a comparative study', *Medieval Ceramics,* **22-23,** 1998-1999, pages 66-71.

Roofing tiles were used in London from the twelfth century and in early decades three systems were employed: shouldered tiles, flanged and curved tiles in combination, and peg tiles. They are compared to suggest why peg tiles superseded their rivals to become the ubiquitous form of ceramic roof covering in later medieval London.

T.P. SMITH

BRITISH BRICK SOCIETY

MEETINGS IN 2001

The British Brick Society hopes to hold meetings in 2001 as follows:

Saturday 9 June 2001 *Annual General Meeting*
King's Lynn with visit to some of the many brick buildings in the town.

Saturday 21 July 2001 *Summer Meeting*
Basingstoke Area, including Basing House and a brickworks office building designed by Sir Edwin Lutyens which is now the offices of the management company running a trading estate. We hope also to see some of the churches in the area with seventeenth-century brick features.

Saturday 29 September 2001 *Autumn Meeting*
St Margaret's Priory, Titchfield, and other sites in south Hampshire.
St Margaret's was built as a hunting lodge with a prospect tower and has a dedrochronological date of 1623/1624.

Saturday 3 November 2001 *Late Autumn Meeting*
North London to include tour of the Midland Grand Hotel, St Pancras; and the exteriors of the British Library and Kings Cross Station.

Details of the second two are included in this mailing.
Further details of the July meeting were issued in the May mailing.

Details of the 2002 programme will be announced in the October mailing.

The British Brick Society is always looking for new ideas for future meetings. Suggestions should be sent to Michael Hammett, David H. Kennett or Terence Paul Smith. Thank you.