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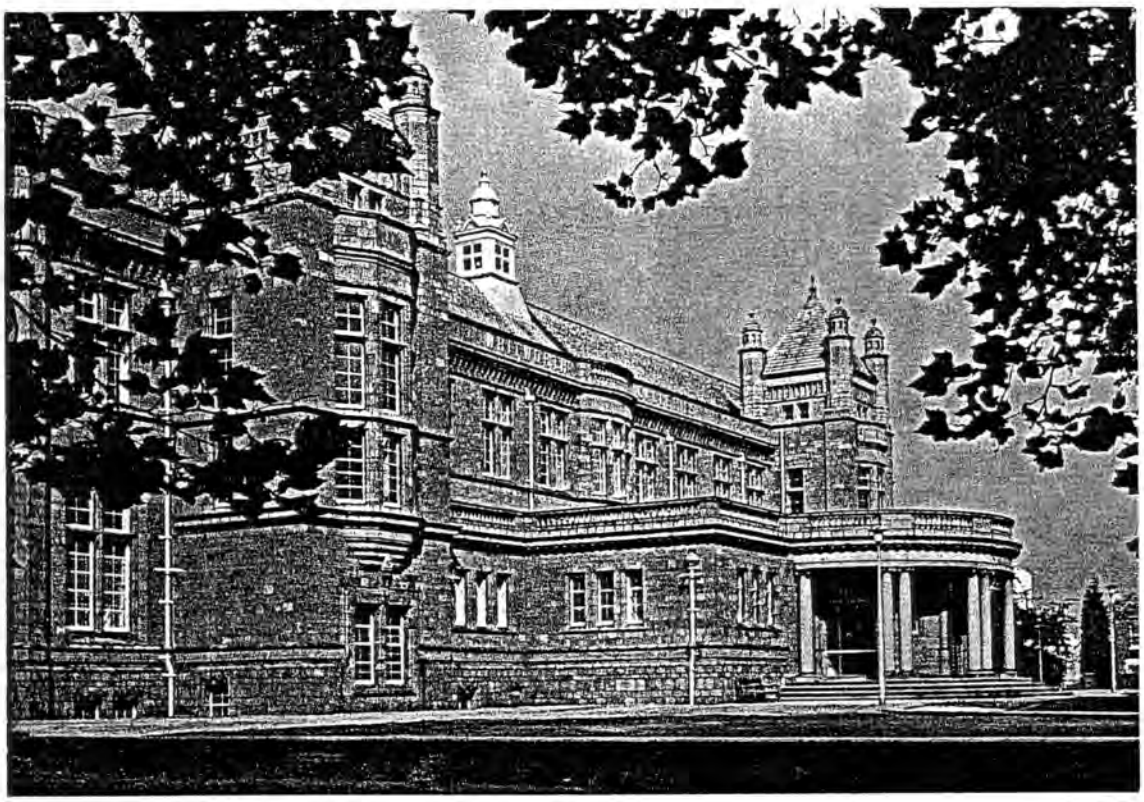

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Cover:

The Whitworth Art Gallery, Oxford Road, Manchester, is one of the many brick and terracotta buildings erected in the city between 1890 and 1914. Designed by J.W. Beaumont with the assistence of his son, J.S. Beaumont, in 1895, construction continued until 1908. The main facade has red brick, red terracotta blocks, moulded red terracotta blocks, and decorated red terracotta lintels. All the terracotta is unglazed.

EDITORIAL:

ONE HUNDRED YEARS OF THE CINEMA

A fuller title to this Editorial might be 'One Hundred Years of Cinema; Eighty-Five Years of Building'. Although we, justly, celebrate the centenary of the first motion pictures in Britain in 1996, specialist buildings for the showing of films did not evolve for another fifteen years.

For example, the first purpose-built cinema in Salford was the King's Electric Theatre, Regent Road, opened in 1911. It closed in 1968. In Bedford, the Picturedrome was designed in December 1909 and opened about sixteen months later. In Manchester, the surviving structure of The Picture House, Oxford Street, dates to 1911, and The Grosvenor Picture Palace, Oxford Road, to 1912. With a splendid name, the Anglo-American Electric Picture Palace, 12 Gordon Street, Luton, just predates all of these: it opened on 16 October 1909.

As with so many new technologies, cinema pictures did not instantly create their own building type. Early showings were in village halls, music halls, even legitimate stage theatres. The spur to develop what John A. Holabird, Jr., FAIA, has called "a vocabulary to handle these new building types" came from the Cinematograph Act of 1909, which imposed much stricter licencing criteria, and more definite building regulations.

Fireproofing and fire resistence were of specific concern in this century's first decade. Members who have attended recent meetings in Bolton, Salford, and the evening walk along Whitworth Street, Manchester, will have seen the use of terracotta as the surface material for the fire stations of the late 1890s, 1902, and 1906 respectively for the former fire stations of three of Lancashire's largest cities.

Given the known fire risks of showing films to a large number of people in a confined space, the advantage of a fire-proof structure were self-evident. A determined arsonist, however, was not to be detered: the Anglo-American Electric Picture Palace in Luton was set ablaze just before 2.07 p.m. on Tuesday 15 October 1929 by an impecunious manager who got into debt through gambling. The fire engines had put the fire out before 2.30 but not before the roof had come crashing down.

Needless to say, the Anglo-American Electric Picture Palace was not constructed of terracotta. Even the brickwork was of poor quality, being hidden on the street frontage by pebbledash. The building was declared unsafe and demolished soon afterwards.

But the structure and the terracotta decoration of many early cinema buildings survive. To gain some idea of the number of cinemas built in Britain in the twelve years after the Cinematograph Act of 1909, and remembering that almost none would have been built after August 1914 and up to early 1919, the estimate of 4000 buildings works out at one cinema for every thousand persons (the combined population of Wales, Scotland and England in 1911 was 40.89 million). It also represents an opening rate of around sixty new cinemas each month between the passing of the Cinematograph Act and the declaration of war on 4 August 1914.

Fairly surprisingly, a not insignificant proportion of those first four thousand purpose-built cinemas survive, few it is true in use even as places of entertainment, although both the Manchester examples quoted are such: the Grosvenor Picture Palace is now the 'Flea and Firkin' public house, with a billiard hall in the basement, which has been there since the 1930s, and The Picture House houses Macdonalds fast food emporium and an amusement arcade. Both of these have remarkable terracotta facades. The Grosvenor Picture Palace is mostly in white terracotta, but there is the use of green as part of the entrance. On the Oxford Road facade, the longer of the two sides, the centre is marked by a raised torch, like the Olympic flame, done in white terracotta. This large, auditorium, for its time, had a balcony, the front of which has multi-coloured inlaid panels. Because of its location away from the city centre of Manchester, this was never a great commercial success. Its architect, Percy Hothersall, went on to design the first supercinema in Manchester, the Piccadilly, in 1922 which in 1937 was converted into Littlewoods store. The latter was not a building with a terracotta facade.

The Picture House has a sloping site: ideal for a raked set of stalls. The emergency exits of the rear doors, on Chepstow Street South, itself not a wide road, retain their terracotta doorhoods. On the long side, to Chepstow Street, the architect, unknown to this writer, uses an elpitical motif in brown terracotta, which in a more elaborate form in white terracotta forms the basis for the decorative symbol at the head of the central column of the facade of the former Krause Music Store, 4611 North Lincoln Avenue, Chicago: Louis Sullivan's last work. In brown terracotta against red brick and above a brown terracotta arcade of low eliptical arches, the Chepstow Street side of The Picture House, Manchester, is remarkably assured. Unhappily, the same cannot be said for the south side of the building, where the pointing and the bricklaying are both of poor quality. This originally was hidden: the adjacent building was the circus arena, later transformed into a music hall and cinema, and subsequently demolished for the Gaumont Cinema of 1937, itself now demolished leaving almost the only gap in a medley of townscape which streches along the west side of Quay Street, Peter Street, Oxford Street and Oxford Road from the original building of Owens College, in Richard Cobden's house, itself of brick, to the mass of buildings of the Victoria University of Manchester.

Members who ventured into Manchester from the visit to Shaws of Darwen, a meeting of the society reported elesewhere in this issue of BBS Information, may have noticed the Salford Cinema, on Chapel Street, Salford: this was also one of the buildings examined during the society's walk round Salford in May 1995. The facade of light brown terracotta with swags and garlands prominent on the main front and a raised corner dome above the entrance was reported to be "the handsomest picture palace in the Borough" when opened in 1912: Salford was not given city status until 1926. It had a remarkable history. The building is converted from a Scottish Presbyterian chapel, whose outline can be seen on the rear wall.

Much less striking but nevertheless still a remarkable survival is the Langworthy Cinema on Langworthy Road, Salford, about which one of the members who came to Salford last year asked me. This was opened in 1913 and survived as a cinema until 1961; its entertainment use continued until 1994 as a bingo hall. It is now a supermarket and the former raked floor has been lowered to flat, but the internal pasterwork survives, incldung three-quarters of the edging of the screen. This red brick building, indistinguishable in this respect from the surviving ara of terraced houses around, has panels of red brick on the long side to Langworthy Road above where the long awning to keep patrons dry had been.

These early cinemas had only two or three risers to the raised portion of the raked floor. A good survival is the cinema on Denmark Street, Manchester, which is now the Department of Music of the Victoria University of Manchester. The cinema auditorium has excellent acoustics, rather better for the cello than either of the galleries of the Whitworth Art Gallery nearby.

Also surviving in Salford is a Victorian music hall, the Victoria Theatre, designed by a specialist theatre architect, Bertie Crewe, in 1899. Sir Henry Irving laid the foundation stone and the theatre opened in December 1900. The Victoria Theatre was converted to a cinema in 1917 and refurbished quite extensively in the 1920s. After closure in July 1958, the building has been used as a repertory theatre and latterly as a bingo hall. Also now a bingo hall is Salford's last purpose-built cinema, the Ambassador, opened on 24 December 1928 and designed by John Knight. It closed as a cinema in 1964.

Just as there was an established group of specialist theatre architects in Victorian Britain, so in the 1930s another group arose whose main speciality was cinemas. There are links between the two. Thomas Verity in the latter part of his life was Consultant Architect to the Lord Chamberlain. His son, Frank T. Verity followed his father in designing theatres, but after the Great War his partnership, Verity and Beverley, is best known for its cinemas, many of which were designed for the Paramount chain. Bertie Crewe has been mentioned as a theatre architect: his last recorded job in this field is the Piccadilly Theatre, London, with E.A. Stone, in 1928. In 1935, he designed the Capitol Cinema, The Bourne, Southgate, London.

Both the Paramount chain and the Capitol chain became part of the much larger Odeon cinema group but only after the death of Oscar Deutsch in 1940. The Odeon chain of cinemas of the 1930s, many of brick, with part tiled facades, are a remarkable exercise in mass production; so many of the fitments were standardised. An interesting comparison could be made between the original Odeons as an exercise in "a vocabulary to handle these new building types" and contemporary creations of other cinema chains in the 1930s.

By then, the concept of lavishing the decorative skill on the exterior so apparent in the early examples had been replaced by the idea of making the interior as opulent as the management could afford. Yet we, who are concerned with brick buildings, should not forget that whichever of the chains financed the building of a new cinema in the town of our birth or that where we now live, the cinema is probably the largest brick building in the place. This is particularly so if it is a 1930s one.

It is fitting to close this editorial with a tribute to a bricklayer. The Union Cinema, Gordon Street, Luton, was opened in 1937; the site is adjacent to that formerly occupied by the Anglo-American Electric Picture Palace of 1909. In the 1950s, it had a superb Art Deco interior to the entrance foyer complete with fish tank housing various species of large goldfish. That is what most people will recall of this cinema as The Ritz. Probably the owners, by then the Associated British Cinemas Limited, did not appreciate the significance; but just as the Ritz Hotel, Piccadilly, is London's first steel-framed building, so this cinema was the first steel-framed building in Luton, antedating two other cinemas, the Savoy on George Street and the Odeon on Dunstable Road, in this respect as in others by a few months. But as an adult the most remarkable thing I recall about the building is the concave brick wall nearly 60 feet high which faces Gordon Street and the back of Luton Town Hall. The whole of this wall was laid by one man, Albert W. Janes, working with two labourers. It needs repointing, but getting the curve right, coping with a sloping site - the lintel of the emergency exit is below the level of the doorstep of the main entrance - is a tour de force of the bricklayer's art.

Members of the British Brick Society are urged to go to look. Seeing the building now occasionally - in contrast to often walking past more than once a week - I still marvel at the skill displayed in the bricklayer's art.

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This editorial links in with one of the themes of this issue of BBS Information. In susbequent pages we report on the meeting held in Autumn 1995 at Shaws of Darwen and continued in Manchester and there is a review article on several publications about terracotta.

As members will have noted from the foregoing, the use of terracotta links very much with the centenary of the cinema.

The centenary links also with the Northern Spring Meeting of the society held at the York Handmade Brick Company, Alne, and in south-east York. Planning for the afternoon visit began with looking for the former cinema which has the deep chocolate brown terracotta - very appropriate colouring for the second industry of the city, chocolates - and ended with the suggestion of looking also at Harry Weedon's Odeon Cinema.

This issue of BBS Information was prepared for delivery to the society's honorary secretary at the Alne/York meeting. Reports on this and on the Spring Meeting at Kempston and Bedford will appear in the next issue of BBS Information.

DAVID H. KENNETT
Editor
BBS Information

The Feast of the Annunciation, 1996

Obituary:

Lawrence Watson

With sadness we report that Lawrence Watson, RIBA, FCIOB, died in March 1995 following several weeks in hospital. Lawrence was an architect with particular skills in the field of building conservation. He had lived and worked in York for over 25 years and was especially knowledgeable about the City's historic buildings.

Members who attended the Society's 1989 AGM in York will recall that Lawrence arranged for us to hold the meeting at the Bar Convent Museum and subsequently guided us on an interesting walk in York which included John Carr's Fairfax House (c.1850) and Bedern Hall (14th century). For both he had been responsible for the excellent restoration work. The latter building was formerly a mediaeval college hall, but now is a Guildhall used by three present-day building craft guilds. Lawrence took a special interest in the training of craftsmen and the development of their skills, and he was able to help the Society reply to enquiries involving the historical evolution of training and the craft guilds.

A keen member of our Society since 1988, Lawrence was looking forward to guiding our York "Walkabout" in April of this year. He had done much of the preparation for it when he fell ill at the end of 1995. It was his nature that, despite great anxiety about his health, he was very concerned that he made arrangements so that our plans would not be prejudiced by his inability to guide us. Sadly his foresight was justified. We were fortunate to have had Lawrence as a member and we shall miss him. Our sympathies have been sent to his widow, Dorothy.

MICHAEL HAMMETT

NEW THOUGHTS ON BRICKS WITH SUNKEN MARGINS

I. M. Betts

Museum of London Archaeology Service

One of the characteristic features of certain medieval and later bricks found in Britain is sunken margins along the top edges of the brick. The Firmans writing in 1983 (1) made clear that these margins were the result of something which had pressed down on to the top of the clay after the surface had been smoothed to removed any excess clay. They postulated that such marks were the result of the moulding frame being reinforced by beading or slips of leather around its upper inside margin (Fig 1). Reeder (2) agreed but thought such reinforcements must have been of metal.

There are a number of serious difficulties with this explanation for sunken margins. Not least is the question as to how clay was added to a mould if part of the top was partly obscured by leather or metal reinforcements. The Firmans' explained this by saying that the mould was rammed over the top of a dollop of clay. For this to have been possible the clay would have had to have been moulded into a rough brick shape first, a slow and laborious process. Even

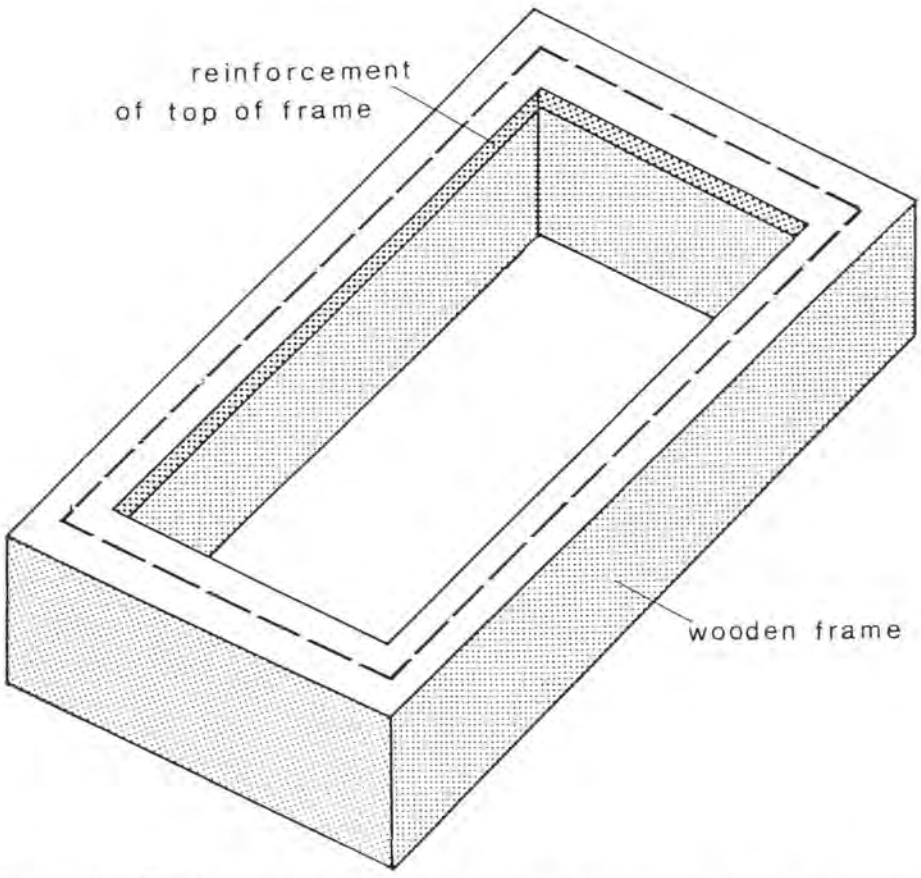

Fig. 1: Brick mould with reinforced top edge, as suggested by the Firmans and Reeder

then it would have been very difficult to push the clay into the top corners of the mould. It seems extremely unlikely that the method outlined by the Firmans was used in brick manufacture as such a method would have been considerably more difficult and time-consuming than throwing the clay into the top of an open mould.

Before we go any further it is useful to look in more detail at the sunken margins themselves, as this provides clearer evidence as to how these features were made. A large number of bricks with sunken margins have been found in London over a number of years. These are mostly locally made red bricks dating to from the mid-late 15th century to the Great Fire of 1666. Similar sunken margins occur on small, hard, yellow paving and walling bricks imported into the capital from Holland in the 17th and 18th century. The sunken margins on both these London and smaller Dutch bricks have a number of features:

1) The sunken margin often occurs on only two or three sides; few bricks seem to have margins on all four sides.

2) The sunken margin is frequently clear at one end of the brick but disappears completely by the other end.

3) Many margins are very thin and often very faint.

4) Certain margins vary in width along the brick edge.

5) The size and depth of sunken margins are not consistent between bricks found together in the same structure.

Some of these features are shown on a selection of bricks from London illustrated in Figure 2. It is extremely difficult to reconcile many of the features of sunken margins with brick production using reinforced moulds. It is hard to see how a sunken margin could be present along one part of the brick edge and not another if leather or metal bands were present in the inside top of the mould, nor is it clear how certain sides could lack such marks.

The question therefore arises as to how such marks could have been produced. The simplest explanation is that the brick was made in the normal way in an open mould with no internal beading. When the mould was lifted from the brick the edges of the clay may have been forced upwards due to the slight friction between the sanded mould and the sides of the clay forming the brick. Once the mould had been removed from the brick these upturned edges could easily have been pushed down by using the bottom of the moulding frame (Fig. 3). Two adjacent upper edges of the brick could have been depressed by pressing the mould down once. The process could easily have been repeated a second time if the remaining two edges needed pressing down. By using the base of the sanded mould the whole process of producing sunken margins would have taken a skilled brickmaker only a fraction of a second. This would also explain why moulding sand is sometimes found in the area of the sunken margin, the sand having been detached from the bottom of the sanded moulding frame.

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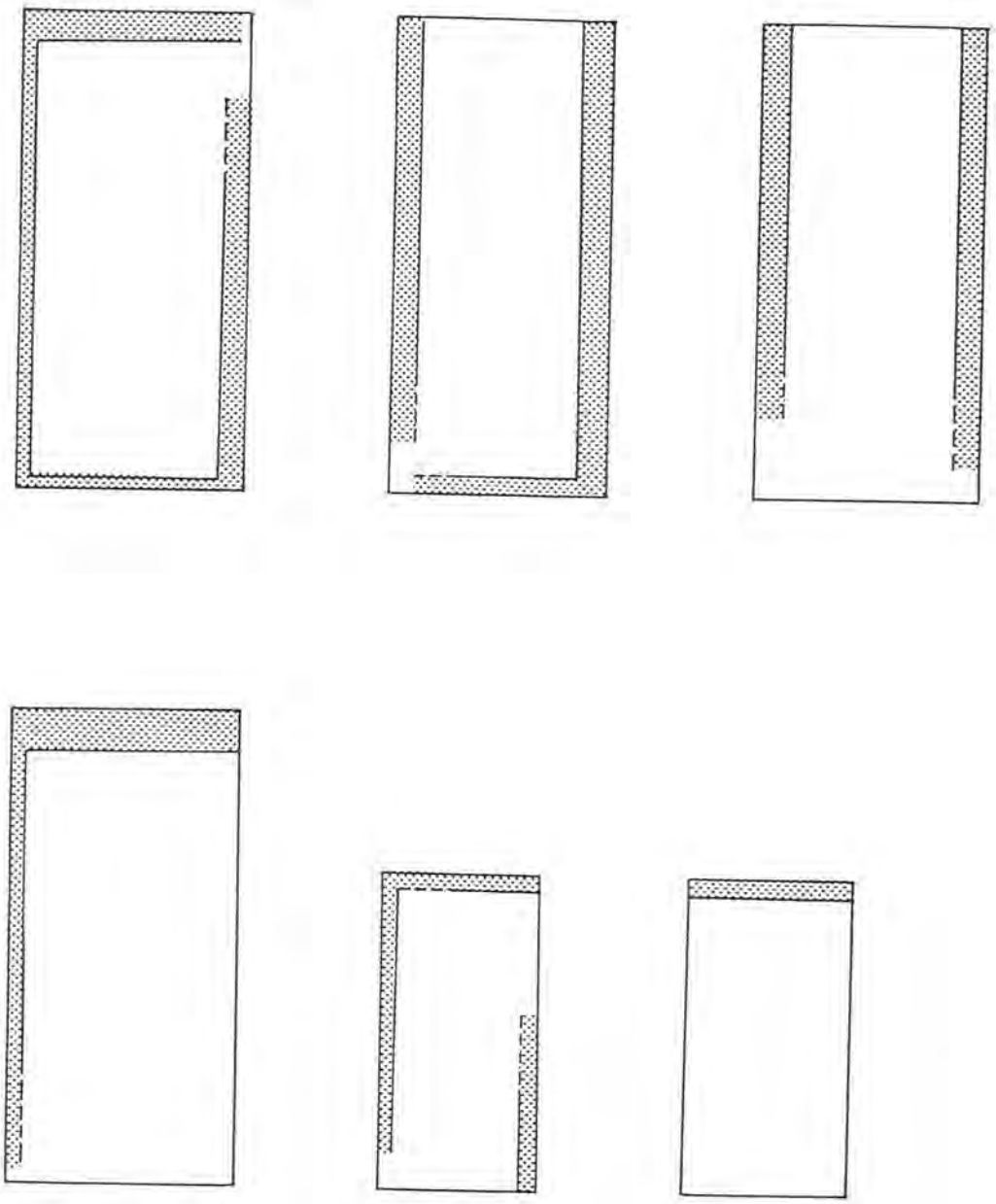


Fig. 2: A selection of sunken margins (shown shaded) found on London bricks

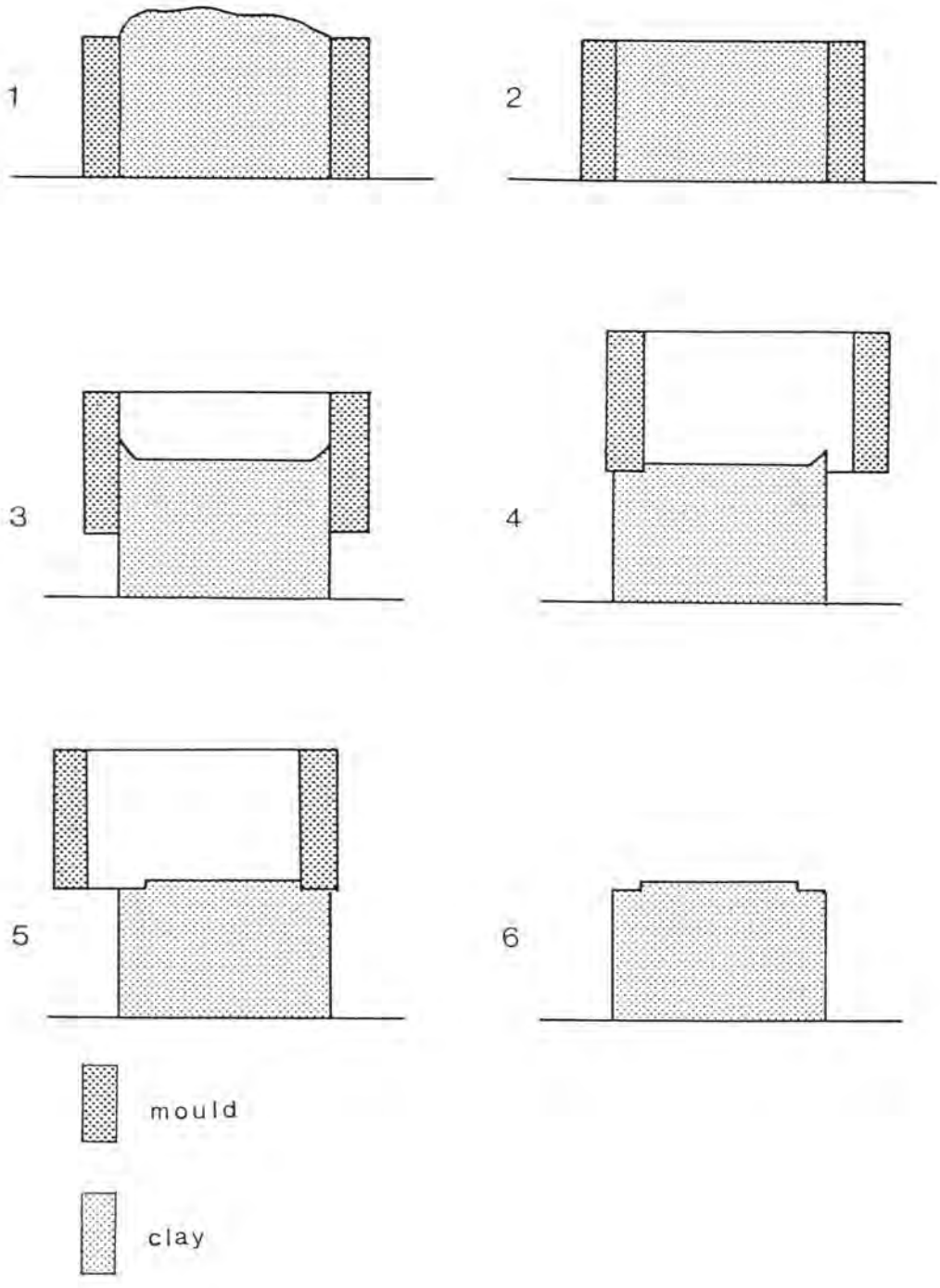


Fig. 3: The method of making sunken margins using the base of the moulding frame

Further evidence that such a method was used can be found on Roman brick. Sunken margins are fairly rare on most Roman bricks found in London, but definite examples do occur. One Roman London brick has two sunken margins one of which shows both an internal and an external side (Fig. 4). This is of particular interest as it reveals the thickness of the mould used to make the brick (21mm). What appears to be the impression of wood grain is preserved in the base of the sunken margin, indicating that the mould was made of wood.

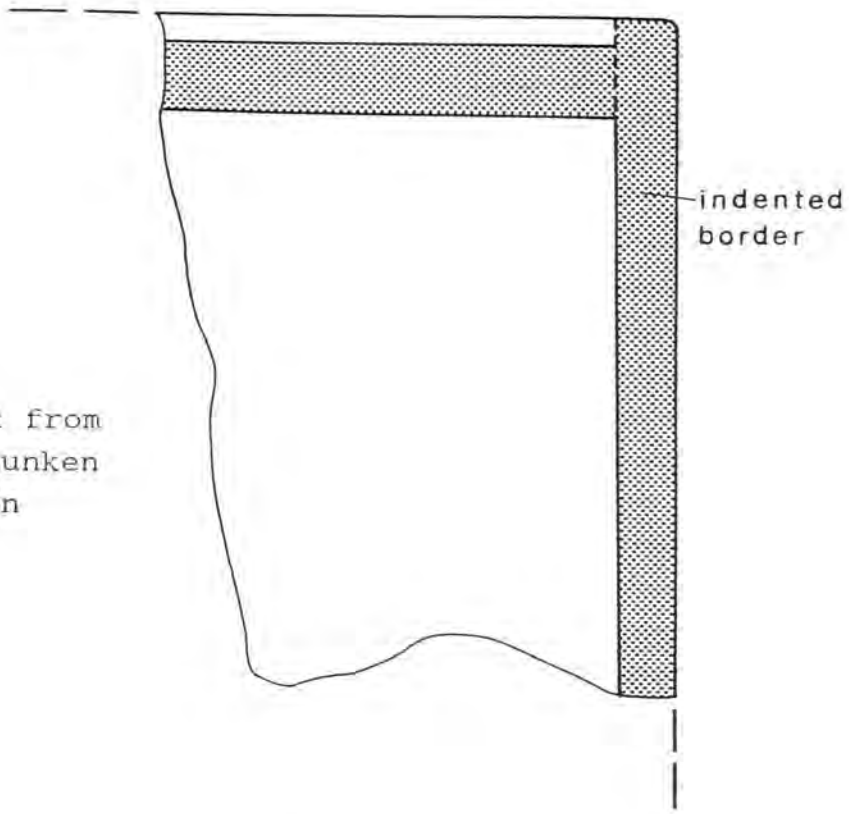


Fig. 4: A Roman brick from London with sunken margins (shown shaded)

The method outlined above seems to offer the most straightforward and the simplest explanation for the sunken margins found on bricks used in the capital. The same explanation may not, however, be correct for bricks made in other parts of the country. Only by close examination of the sunken margins themselves can suggestions as to their origin be properly discussed.

References

1. R.J. and P.E. Firman, 'Bricks with Sunken Margins', BBS Information, 31, November, 3-5.

2. M.G. Reeder, 'Bricks with Sunken Margins', BBS Information, 32, February 1984, 12-13.

REVIEW ARTICLE:
TERRACOTTA & THE TRANSFORMATION OF THE CITY

David H. Kennett

> It is the most plastic of materials in its raw state, suffering itself to be shaped, with marvellous readiness, into every conceivable variety of form and movement, yet, when once fired, these forms and delicacies become everlasting; these movements and rythms of the ornamentation preserve with the persistence every poetic and airy nothing that the creative imagination has imparted to it.

An anonymous author, but suspected to be Louis Henri Sullivan, wrote this of terracotta, a material again in fashion. Books about the material and its uses, past and present, on both sides of the Atlantic Ocean have come to notice. Full details are given at the end of this review article.

In his subtitle to The Terracotta Revival, Michael Stratton makes it clear that terracotta is an urban building material; this review article will concentrate on the transformation of the city. Irrespective of specific designation, "city" is here used to mean a major population centre, see Table 1.

As a building material used in the countryside, terracotta was popular only in the mid nineteenth century, a period when use was tentative in the urban context. Early use was confined to official buildings, which were designed by engineers: Francis Fowke at the South Kensington Museum and Henry Scott at the Royal Albert Hall. It was not until Alfred Waterhouse, architect already of Manchester Town Hall, used buff terracotta as the exterior walling material of the Natural History Museum, South Kensington, that terracotta became "respectable" for progressive architects to use.

The high watermark of the popularity of terracotta in England and north-east Wales dates to the forty years before the Great War: The Natural History Museum belongs to 1873 to 1881; Reading Town Hall in red terracotta to 1872 to 1875; and in 1878, Alfred Waterhouse completed the Holburn headquarters of the Prudential Assurance Company. He went on to design a further seventeen offices for them, in which

> Apart from a few exceptions where buff terracotta or stone was used, a bold red colour, possibly with an orange or purple tinge, was adopted from one end of the country to the other. To the managers of the Prudential this strident uniformity betokened dependability and permenance.

In each of these the details are reworked, the forms subtly different: it was a matter of reputation for the architect.

But many would have chosen to buy off the peg ornaments from J.C. Edwards of Ruabon or Hathern Station Terracotta in Leicestershire. There is a lot of Hathern products in Great Yarmouth: houses on Palgrave Road, of 1905, as illustrated by Stefan Muthesius in The English Terraced House, the entrance lodges to the workhouse also built in 1905, and on the schools of the 1930s. An area needing exploration is how the products were transported to distant sites. In New York, terracotta for the Woolworth Building was delivered by the local style of haywain. The Atlantic Terra Cotta Company were also experienced in packing a rail car.

TABLE 1

CITY POPULATIONS, 1891 - 1911

	1891	1901	1911	note
Birmingham	478113	522204	840202	b.c.
Bolton	146487	168213	180851	
Great Yarmouth	49334	51316	55905	
Leeds	367505	428968	454155	b.c.
Manchester	505368	543872	714385	b.c.
Norwich	100970	111733	121490	
Reading	60054	72217	87693	
Salford	198139	220957	231357	
Wigan	55013	60764	89152	
York	67841	77914	82282	

Note: b.c. - boundary change after 1911; figure relates to area of city in 1921
Sources: Census, 1901 - summary table (Table XIV); Census, 1921, Preliminary Report, Table II

In his chapter on 'Late Victorian Terracotta: Eclecticism and Originality', Stratton notes the promotion of the material by landlords in London, specifically in Mayfair, Kensington and Chelsea. Similar promotion could be argued from Fitzroy Doll's work for the Bedford Estate in Bloomsbury or the use of the material on the Howard de Walden estate, west of Portland Street.

As Stratton portrays the Imperial Hotel on Russell Square, London, is but a memory. It ranks with the slightly earlier Midland Hotel, Manchester, as a major example of how terracotta can much enhance a steel-framed structure. Charles Trubshaw, architect to the Midland Railway, had previously used terracotta as a decorative frieze on London Road Station, Leicester, in 1892, and the Midland Railway Institute, Derby, in 1894, and more extensively on the company's hotel at Bradford in 1885.

Other Edwardian uses of terracotta picked out by Stratton are the reformed public house particularly in Birmingham, the era's theatres, especially those designed by Frank Matcham, and the London Underground stations designed by Leslie Green. He could have chosen to illustrate the unified facade of the Strand Corner House, an establishment of J. Lyons, who also used terracotta to front both the Strand Palace Hotel and the Regent Palace Hotel. At a more opulent level is the Savoy Hotel, which could like so many of New York's buildings be taken for granite.

The cinema and the seaside belong in Stratton's discussion to the inter-war years but as text and photographs emphasise use of terracotta here begins before the Great War. Members who visited York in late April will have seen the Electric Cinema, Possgate, of 1911 by William Whincup. In the western suburbs of Hull is the Tower Cinema, Anlaby Road, by Howard Perceval Binks. The light-coloured terracotta facade is complete with a ceramic lady holding film and camera as she sits like Humpty-Dumpty on the wall.

Further examples of the early purpose-built cinema with terracotta decoration are noted in the editorial to this issue of BBS Information (pp.2-4 above). In his discussion of the seaside, Stratton illustrates part of Great Yarmouth front with the Empire Cinema of 1911, in buff terracotta with buff-coloured brick as the main facing material, and the red terracotta garden ornaments - complete with the borough's coat of arms. His caption omits notice of the red terracotta to the arcades of 1902 and 1904 adjacent to the cinema and the orange terracotta facade to the Goodes Hotel, now called Caesar's Palace, on the extreme edge of the photograph. There is actually a great deal of terracotta in Great Yarmouth

J.W. Cockrill, architect in private practice and borough surveyor, had an interest in terracotta: his patents include one for using it as facing material for electricity sub-stations, as for example at the south end of a car park adjacent to Howard Street.

The seaside is something of a special case: in 1911, Great Yarmouth was two-thirds the population of any other city noted in table 1. Blackpool was 60746 people in 1911 and very much a newcomer; there had been barely 14000 there in 1881. But in the following thirty years, and especially after Maxwell and Tuke of Manchester had created the terracotta encrusted shell of the Tower in 1891-94, many new buildings of terracotta were erected for the delight of the holidaymakers, although perhaps they pass them by. At Morecombe, the other Manchester firm with expertise in entertainment buildings, Mangnull and Littlewood, extended the People's Palace of 1878 into the Winter Gardens, or Victoria Pavilion as it is also known, of 1896 with a glorious orange terracotta facade. It is now in the process of reconstruction and redevelopment into an exhibition, concert, conference and general leisure facility: a fitting use for a grand old lady.

One of the buildings on the front at Blackpool is the light grey terracotta of the Central Arcade, which is not mentioned in Margaret MacKeith's survey of Shopping Arcades 1817-1939. These are an established building type of the late Victorian era of which one may note the Leeds ones with terracotta decoration by the local firm, Burmantofts, designed with the theatre by Frank Matcham. In 1975, MacKeith found twenty-nine of the 1890s and twenty-four built between 1900 and 1914. Eleven of these have terracotta facades. Particularly good examples are Makinson's Arcade, Wigan, of 1898 by R. Ablett, and the Royal Arcade, Norwich, by George Skipper, of 1899. Skipper's own offices, in London Street, Norwich, have terracotta panels of the architect at work.

Industrial Lancashire figures considerably in Table 1: four out of the ten cities. These are of vary different complexions. Wigan is tightknit and intimate. Bispham Hall Colliery Company, established c.1901 and flourishing 1906 to 1933, is not the only explanation for the terracotta. The former technical college now the Town Hall, Library Street, by Briggs and Wolstenholme of 1901 and the adjacent library by Waterhouse, dated 1878, are all in red terracotta. Only The Playhouse, King Street, of 1916 with a white faience front seems to use the local product.

Bolton is unjustly neglected by Stratton; yet at least one of the local brickmakers James Ormrod and Son in 1889, also manufactured terracotta and Great Lever is the site of the first of Edward Sharpe's pot churches. Bolton as a city bristles with terracotta buildings. Bradshawgate was rebuilt between 1900 and 1914; the museum usually displays the colourwash drawings of the west side done before and after by Thomas Smith, a local architect, which are reproduced by Mark Girouard in The English Town. The splendid buildings of the northern half of the rebuilding survive to remind us of the strength of the material we are discussing. Elsewhere in the town centre there are the tower of Victoria Hall, Knowsley Street, the Empress Hall on Mealhouse Lane, and Aspinall Buildings, Deansgate, while to the south-east are the Wesleyan Chapel on Bradford Street and the Pupil Teacher Centre overlooking the urban motorway. The two last were designed by John Bradshaw Gass who was also responsible for the Leysian Mission, City Road, Islington. The front of this was created out of unglazed Bolton-made terracotta, shipped to London by special train.

The best of the Bolton buildings is the pink fire station, now sadly empty on Marsden Moor. There are many of these built after 1898. That in Salford, now a photographic gallery, is in red brick with buff terracotta trim. That in Manchester has a cladding of buff terracotta by Burmantofts; the interior courtyard is red brick. No use has been found for this magnificent creation by Woodhouse and Willoughby, unlike that other terracotta magnificence, the old YMCA building on Peter Street by Woodhouse, Corbett and Dean which is the end of the decade in its date. Manchester Fire Station took from 1901 to 1906 to build.

Manchester is Lancashire's prime city for terracotta. This reviewer is at work on a paper on 'Edwardian Manchester: Brick and Terracotta in the Mercantile City' for a future issue of BBS Information. And in Salford there is the reminder of architectural talent available over the Irwell in the shape of Woodhouse and Willoughby's School Board Offices on Chapel Street dating to 1895.

One final evocation for Manchester: an interior, the Refuge Assurance Building, now an hotel. Iron-framed but in the banking hall, now a public space - but do ask first -, it is terracotta-clad like an American interior.

Cities are discovered by walking and this Ms Tunick encourages us to do in New York. First there is Greenwich Village; second is Murray Hill to Gramercy Park; third is the Times Square Area. The last has recommendation for coffeea and pastrie: at a half-way point; the first two recommendation at the end. The St Denis Hotel of 1853 had but no longer has its terracotta window surrounds. The walking is selective. Lower Manhattan, south of walk 1, rates thirteen entries in Skyscraper Style Art Deco New York and twelve in Ms Tunick's 1986 listing. Walk 3 does not quite reach the Panhellenic Tower of 1927 by John Howells and the 1986 list has sixty-seven buildings north of this. This walk does include the McGraw-Hill Building, 330 West 42nd Street, of 1930 by Raymond Hood.

Howells and Hood collaborated on the design which won the Chicago Tribune Tower competition in 1922: Louis Henri Sullivan's last published work was to comment on the designs submitted for the newspaper tower. Chicago was the city transformed by terracotta. Although the fire of 1871 was a stimulus to find a fire-resistant walling material, just as it was a stimulus - in promoting the total rebuilding of the central business district - to discover a means of raising the height beyond five storeys, witness the 1850s rebuilding of Manchester, England, in brick, it was not until the late 1880s that architects like Sullivan and John Welborn Root and Martin Roche and structural engineers like Denkmar Adler, the associates of Daniel Burnham, and William Holabird found in structural steel for the framing and terracotta for the facades the ideal combination of materials to create the first skyscraper age.

That they did beautifully, in buildings we admire for their grace:

> Rising thus - cream-white, maidenlike and slender, luxuriant in life and joyous as the dawn of wistful spring, this poem of the modern, will ever daily hail the sun on high and the plodder below with its ceaseless song of hope, of joy, of the noble labour of men's hands, of the vast dignity and power of man's soul - a song of true democracy and its goal.

The words, probably by Louis Sullivan, describe the Bayard Building, 65 Bleecker Street, New York, which opens Ms Tunick's first walk. What we need now is a sponsor for a guide to walks in that most English of cities, Manchester, to emulate Ms Tunick's achievement for New York.

The books discussed in this review article are:

Michael Stratton, The Terracotta Revival Building Innovation and the Image of the Industrial City in Britain and North America,
London: Victor Gollancz in association with Peter Crawley, 1993
256 pp., 38 colour, 199 black and white illustrations, 20 diagrams
Cloth-bound ISBN 0 575 05433 6
price £30-00

Susan Tunick, Terra Cotta Don't Take It For Granite
New York:: Friends of Terra Cotta Press, 1995
ii + 62 pp., 31 black and white illustrations, 3 maps
Spiral bound ISBN 0 9636061 2 3
price £7-00

Susan Tunick and Walter Geer, Architectural Terra Cotta,
being SITES 18; New York: Lumen Inc., 1986
84 pp., 45 black and white illustrations
Cloth-bound ISSN 0747 9409
price £8-95

Sharon Darling, Architectural Terra Cotta in Chicago,
New York: Assopiastrelle, 1992
16 pp., 26 colour illustrations
A4 booklet, stapple-bound no ISBN
price £4-50

All these items are available from Buckland Books at 3 Browns Rise, Buckland Common, Tring Hertfordshire HP23 6NJ; which is the book business of British Brick Society member Chris Blanchett.

NEWS FROM BURSLEDON

Steady progress has been made on site since the visit of the British Brick Society in 1992. Open Days have been held three or four times a year, each year since 1993. These are usually given a theme: Bricks and Tiles, Timber and Thatch, Stonework are some examples; there are regular demonstrations of brick and tile making (courtesy of Michelmarsh Brickworks, Romsey), bricklaying, plasterwork, narrow-guage railway, steamroller, and small stationary engines. A cafeteria and toilet block have been added to the buildings.

Machinery continues to be rescued from closed works: kibbling rolls, a pan mill, pugmills, and extruders await restoration. Restoration of the original extruder of 1885 continues slowley, with some help from the original makers, Bennett & Sayer of Derby. The steam engine has been in working order since 1993. A modern oil-fired boiler will be installed in the boiler house and an appeal for funds is to be launched in April 1996. The old boilers are 'knackered'. It is not intended to restore the steam-heated drying floor system.

In 1995, though the writer's liason, a horse-driven brickmaking machine was recovered from the site of Hants Hill Brickworks, Holt, Wimborne, Dorset. It was made to Hall's patent (as illustrated on the cover of BBS Information 63) by P. Bawden, London, 1898, about whom any further information would be welcome. He may have been an engineer/ironfounder. The machine has a casing of cast iron plates bolted together. It made 5 bricks at a time. It has now been dismantled, cleaned, and a trial re-assembly is underway. It is hoped to have it installed for the Brickworks centenary in 1997. This year (1996) is the 150th anniversary of Hall's patent. The output of such machines was said to be 10000 bricks a day but this depended on the speed of the horse. The single Scotch kiln at Bursledon held only 20000 bricks. The Dutch machines by Aberson and de Boer, work on the same basic principle, using multiple moulds. Johannes Aberson started making Hall's machines at Olst, the Netherlands, in 1847. Harts Hill Brickworks was established in 1938, worked through the war on government contracts using German prisoners of war as labour, and closed in 1952. The niece of the last brickmaker still owns the site. Also retrieved were a horse-driven vertical pugmill and a hand-powered extruder or 'stupid' for land drains. The museum already has one stupid in working order.

Recently donated to Bursledon was the final portion of the brick collection of Martin Hammond. Collections of chimney pots and land drains formerly at Park Farm Museum, Milton Abbas, Dorset, have been acquired.

The 'Friends of Bursledon Brickworks' was formed in September 1995 as the volunteer support group and there have been working parties on the third Sunday of each month throughout the winter. Cataloguing of the large collection of special brick moulds, ex Redland, North Holmwood Works, Dorking, Surrey, and elsewhere, has begun. There are 500 bricquettes ready for firing in a minature Scotch kiln. One chamber of the Hoffman kiln has been cleaned out and opened for the public.

MARTIN HAMMOND

Brick in View

The late Summer of 1995 and early Spring of 1996 saw a number of varied activities involving bricks. Those for which reports were to hand on 20 April 1997 are included herein.

Details of the Autumn Meeting of the British Brick Society and preliminary details of the 1997 activities of the society are given together with other events of interest.

BRICKMAKING AT SNIBSTON

On 8 August 1995, Snibston Discovery Park, Coalville, Leics., was teaming with budding brickmakers from Leicestershire and beyond.

Over thirty children and their interested parents rolled up their sleeves and got stuck in (literally!) to learning traditional brickmaking skills.

Local brick company, Ibstock Building Products, helped Stuart Warburton (Keeper of Science and Industry) to bring these skills alive. At the brickmaking bench in the Extractive Industries Gallery, children made their own 'special' bricks in the traditional way, using the tools usually there on display. The bricks were fired and returned to them by the brick company, later on.

The afternoon was made complete for the brick enthusiasts with information sheets, to take away, on the skills, words and tools of the traditional craft. The 'hands on' session also included making rubbings from some unusual bricks from the museum's collection and trying to build walls from Lego bricks using different brick bonds. These were devised by Jane Reynolds, Education Officer, to enhance the workshop.

Stuart Warburton said, "This event provided a real 'hands on' insight into the history of the brickmaking industry. It proved so popular that we plan to run another one next summer."

Please contact the Marketing Department, Snibston Discovery Park, Ashby Road, Coalville, or telephone 01530 510851 for a special events leaflet.

JANE REYNOLDS

SHAWS OF DARWEN

For me, the day began in a manner akin to the opening of 'Four Weddings and a Funeral' with eleven faxes and one berger in the first four minutes. It ended with the cream of Manchester - terracotta variety, not Boddingtons! In between were fitted the not so dark satanic mills that are Shaws Terracotta Works, special entertainments (hunt the brick in the contractor's skips), tea in the exotic Holiday Inn, Manchester, and a walkabout with David Kennett to view some of Shaws finest products in situ in the metropolis of the north. The less said about the journeys to and from the manufactory the better.

With the Natural History Museum, the original blocks were fired in kilns fuelled by coal. Today the energy source is gas and the new pieces required clay recipe variation and experimentation with silica-based glazes to ensure matching with the brilliance of the high lead content glazes of earlier times.

As with the Hackney Empire Theatre restoration often requires measured drawings of existing structures, library/academic research, photographing remaining buildings and even archaeological 'digs' to unearth original components for the makers to work from. Colour matching for glazes, clay mix specifications/approval and a drawing of each block with its own identifying stamp number (allowing for shrinkage) has to be prepared prior to manufacture; any of these can influence programme and manufacture times, costs and difficulties, although drawings are now produced by CAD as well as traditional means.

All three divisions - Fireclay, Glazed Bricks, Terracotta/Faience - manufacture from the same materials in a similar way. Manufacture takes the following stages:

1 - Modelling of the block or piece in plaster.
2 - Shellac model to scale, including allowance for shrinkage of the drying clay.
3 - Mould making in plaster.
4 - Throwing of the clay (mix includes 40% grog for wet strength and shrinkage reduction) into the mould.
5 - Stripping the mould and hand fettling to shape and finish.
6 - 1 to 2 weeks drying of blocks.
7 - 4 to 5 day firing cycle in the kiln at 1180°C.
8 - Laying out after firing to check for size and twist.
9 - Packing and delivery.

Hollow blocks are filled with 1:8 mix, cement:sand, one day before fixing on site, where they are laid with 5 mm joints in class (iii) (1:1:6) or class (ii) (1:½:4½) mortar (proportions are cement: lime: sand).

The maximum finished size for a terracotta block is recommended as 600 by 600 by 300 mm but individual decorative pieces can be made up to 1500 mm high by 900 mm by 900 mm overall.

The vibrancy of Victorian and early-twentieth-century colours is being sought by experimentation following the restrictions on traditional lead glazes by the Health and Safety Executive and the European Union .

The Duke of Westminister's Parrot House, Cheshire; the Customs House at Ramsgate, Kent; Templeton Carpet Factory, Glasgow; the Victoria Palace, London; the Savoy Theatre, London; Redhill Shopping Centre, Redhill, Surrey; the French Bank in London; and Fenwicks Store, Newcastle were all illustrated as examples of the makers' skill in restoration or new build terracotta and faience.

After a buffet lunch, the group went on a tour of the works. David Wilson and Mike Walsh showed us the drawing office. The design unit is autonomous and is a business within a business, funded by income for design detailing work which it subcontracts from Shaws.

The preparation and manufacture follows very closely the ways of stiff clay extrusion methods in brickmaking with the exception perhaps that the clay is more finely milled and rolled before water is added.

The laboratory where dyes, clay mix formulae and additives are subject to R & D and quality control was reminiscent of schooldays' science labs but somewhat dustier and less formal. Containers of coloured compounds and powders looked decidedly like jars of poster paints as they sat next to Winchesters full of mundane things like distilled water and assorted named acids.

After 'Le Voyage', twenty-two members and guests met at Shaws Terracotta Works, Darwen, Lancs., on 23 September 1995 at about the appointed time. The grey veil of a Lancashire sky was lifted after coffee by David Wilson from Shaws, later joined by the Technical Director, Mike Walsh, who together gave us a sustained presentation of the history of the company, the method of manufacture and the wide range of examples of new and restoration work.

Shaws Glazed Brick Company was formed in 1897 by Arthur Gerald Shaw with his manager, John Hall, at Whitebank as an adjunct to the Canister Fireclay Works and the family-owned colliery. Glazed bricks and tiles were originally made from clay which was a bye-product of coal mining. This was transported from the pits at Belthorn and Waterside by traction engine, then by overhead wire-slung buckets and finally by horse and cart. Spare capacity in the works encouraged research and devlopment into terracotta and in 1905 the company won its first contract, for Altringham Station, south of Manchester. This was followed from 1909 by a succession of facades in terracotta for theatres to the designs of Bertie Crewe.

At the outbreak of the First World War, the company switched from construction materials to electrical insulators and resistence wares for government contracts. After hostilities ceased a new Bottom Works was opened up in 1921 for fireclay sanitary ware and by 1924 production facilities covered fifteen of the twenty-six acres of the site. The same year saw their largest terracotta order for the Winter Gardens, Blackpool, and work expanded throughout the 1920s and 1930s with major contracts for Lyons Corner Houses, Prudential Assurance Company offices, Co-operative Stores, Odeon Cinemas, Ibex House, Minories, and the first turbine hall of Battersea Power Station.

The Second World War saw a repeat of the production switechs wrought by World War I but these did ensure the survival of the works and the availability of skilled staff for peace time manufacture of terracotta.

The economic aftermath of 1945 saw handmade terracotta (unglazed) and faience (glazed) squeezed out of mainstream building because it was now so costly. The company responded by developing innovative, frost proof, lightweight tiles for interiors, external use and cladding applications. In 1960 Shaws amalgamated with Hathernware of Loghborough but after its market share slipped and the remedial, extruded supertile failed, the company went into receivership. Shaws was split off and purchased by the Concrete Masonry Group which owned Hereford Tile. Ownership of both changed in 1988. In 1995, Shaws was sold to Shires who needed additional manufacturing facilities for their vitreous sanitary ware. The company's position in the terracotta/faience and glazed brick businesses has been re-affirmed; marketing is through Ibstock.Shires is in the process of investing £3 million in Shaws with almost seven acres of the site being now used for manufacture. The company is comprised of three divisions:

1 - Fireclay, which produces 500 units/week of kitchen fashion fittings (Belfast type sinks for 'unfitted' kitchens) fireclay sanitary ware and tiles for refurbishments of swimming pools.
2 - Glazed Bricks, which manufactures floor tiles, wall tiles and glazed bricks (at £1500 and upwards per 1000 to you and me).
3 - Terracotta and Faience, which is a growing 'new build' material and has a large conservation/restoration market

With the development of a renewed interest in terracotta beginning in the early 1980s, particularly in the restoration of historic buildings, the company has again developed its production facilities for terracotta and faience. There have been new prestigious contracts: the circular lily feature at the Birmingham School of Art, Margaret Street, Birmingham; the eastern gallery at the Natural History Museum, South Kensington, London; the preplacement of damaged terracotta at the Royal Albert Hall, London; Cliveden House, Bucks.; the County Arcade, Leeds; and St George's House, Manchester (formerly the YMCA building).

The tunnel kiln proved a star turn and being smaller than those of most brickworks generated the same enthusiasm seen in groups of adults taking over their outraged offspring's 00 guage railway.

The most poignant site was the main store, littered with the fossils of ninety years of terracotta making. However, sadness was replaced by delight at the vision of a wild array of terracotta blocks and special shapes drying ready for firing. Reality was restored by the serried ranks of fireclay sinks awaiting their turn at the hands of the firebox but was suspended momentarily again by the surreal individual gift-wrapping of these expensive terracotta blocks and bricks nestling in their own boxes, - something straight out of 'Willy Wonka and the Chocolate Factory' + Roald Dahl eat your heart out!

Emerging into a sunny afternoon, the group was entertained by an outbreak of brick collectors' mania in and around a convenient skip before leaving Mike Walsh and following David Wilson to the Midland Hotel, Manchester, now extravagently renamed the 'Holiday Inn, Crowne Plaza' where we took afternnon tea. Negotiations thereat were enlived by an attempt to gain access to a first floor balcony which was visible through the glazed courtyard roof to take photographs of the 1898 glazed brickwork. Sadly the request was refused by a nervous management who were suffering from depression caused by the "Health and Safety" and "the Builder's are still in" syndromes.

After a refreshing break, we bad farewell to David Wilson, thanking him for all his efforts during the day, including providing the buffet lunch and the afternoon tea.

The surviving members of the group took to some of the streets of Manchester led by David Kennett, who readily agreed to pursue terracotta ancient and modern with the enthusiasts having cameras at the ready in a modern day parody of Blake's Jerusalem.

After the Midland Hotel, the party concentrated its interest on Oxford Street and Whitworth Street, the latter a canyon reminiscent of contemporary Chicago: the street dates to 1899, the buildings to the decade following. David Kennett tells me that he is preparing a full survey of the use of terracotta in 1890s and Edwardian Manchester for a future issue of BBS Information.

Highlights of our walk included the various surviving warehouses designed by Harry S. Fairhurst and others and the different phases of UMIST, the original Manchester Municipal Technical College by Spalding and Cross, the extension designed in 1927 but not completed until 1957 by R.M. McNaught of Bradshaw Gass and Hope of Bolton, and the later brick residences. The 1960s slabs of concrete, steel and glass, much in evidence in this part of Manchester's Left Bank, drew far less approval. Completing the walk we saw the 1906 Fire Station by Willoughby, Woodhouse and Langham of Manchester, using terracotta by Burmantofts of Leeds. The same manufacturers also provided the panels about the fine arts - music, architecture, painting and sculpture - on the Midland Hotel.

It was a long day, but well worth it. Our thanks are due to Chris Blanchett who suggested the visit to Shaws of Darwen and did the organising, to David Wilson for his expert guidance at Shaws, and to David Kennett for having his arm twisted to lead the walkabout in Manchester.

MICHAEL TROUGHTON

FUTURE EVENTS

One meeting of the British Brick Society remains to be held in 1996:

Saturday 21 September 1996	Autumn Meeting Eton College extended guided tour with tea to follow cost £10-00 details with this mailing.

Plans are already in hand for the 1997 programme:

Saturday 12 April 1997	Northern Spring Meeting Liverpool
Saturday 17 May 1997	Spring Meeting Birmingham
Saturday 14 June 1997	Annual General Meeting Avoncroft Museum of Building Bromsgrove, Worcestershire
Saturday in September (date to be announced)	Autumn Meeting Hatfield,Hertfordshire including Hatfield House

Full details in future issues of BBS Information.

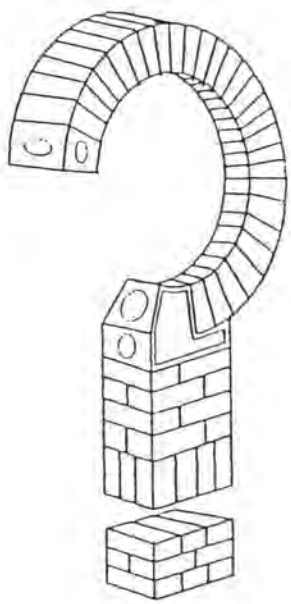
The British Brick Society is always looking for ideas for future meetings. Suggestions please to either Michael Hammett or David H. Kennett.

Also of interest to members:

Saturday 16 November 1996 from 2.00 p.m. to 5.00 p.m.	Yorkshire Geological Society joint meeting with East Midlands Geological Society 'Mudrocks: from seafloor to brickwall' Main Lecture Theatre, Geology Department, University of Leicester. contact for further details: Paul Wignall Ph.D., Dept. Earth Sciences, University of Leeds. Tel. 0113-233-5247

Members are requested to send other meetings of interest for publicising.

BRICK QUERIES COLUMN



From time to time, the British Brick Society receives requests for information about bricks, brick buildings and other matters to do with bricks. Some of these raise questions for which no obvious answer or source of information is readily available.

These and answers, or replies, are printed in issues of BBS Information as space is available. Single queries are kept so that at least a page can be presented in any one issue of the newsletter.

DHK

YORKSHIRE BRICK BUILDINGS

I thank our members Giovanna Homan and David Neave for information about the Old Manor House, Burton Agnes. The cladding of the c.1180 stone hall of Roger de Stutville in brick has a datestone of 1712 on the east wall.

Ann Los has sent a useful article on Paull Holme Tower, which it is hoped will appear in the next issue of BBS Information.

DAVID H. KENNETT

BRICKMAKERS' MEMORIALS

In St Peter's church, St Albans, Hertfordshire, the original inscription of the brass of Roger Pemberton, died 1627 aged 72, was palimpsest. The reverse was an inscription to John Ball, brickmaker, died 1515, who left 10s yearly for an obit for himself, his wife Elizabeth, and his parents, John and Crystyan.

Does anyone know anything more about John Ball?

Does anyone know of any other pre-Reformation memorials to brickmakers?

The query arises by chance from preparing a list of churches to visit in connection with current research into marbles used as matricies for brasses.

Roger Pemberton founded the six almshouses, opposite to the church, which are of brick and were seen by society's members at the Spring Meeting, 1995.

Dr R.J. FIRMAN

Department of Archaeology
University of Nottingham
University Park, Nottingham, NG7 2RD

Brickmaking Gazetteers

BBS Information 67 (March 1996) contained notice that the society had been sent a copy of Gazetteer of Buckinghamshire Brickyards by Andrew Pike for review.

It is anticipated that a 'Review Article: Brickmaking Gazetteers' will be included in BBS Information 69 (October 1996).

To make this as full as possible, the undersigned would welcome notice of gazetteers of brickyards, brickmaking sites, brick kilns covering a county or an area. He has on his shelves the gazetters for Bedfordshire, Buckinghamshire (both editions), Scotland, Somerset, and Sussex for larger administrative areas, and for Acton and Ascot-Bracknell-Wokingham for smaller areas.

The compiler of the review article is also aware of maps implying a gazetteer which have been published for Lincolnshire, Oxfordshire, and Suffolk, although full bibilographical references to the first- and third-named counties are not yet to hand.

To make the review article as full as possible, he would welcome information concerning other published county maps of brickmaking sites, other county or large area gazetteers, particularly in the latter case more ephemeral publications, and unpublished work on a gazetteer in progress.

DAVID H. KENNETT