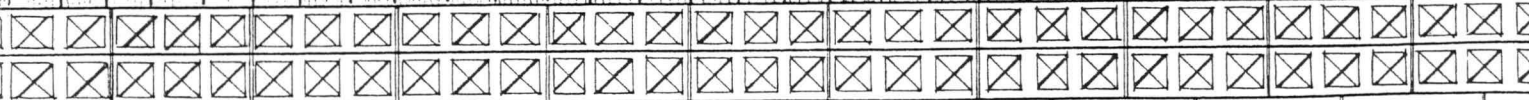


BRITISH
BRICK
SOCIETY

INFORMATION

No 32

Feb '84



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* Members of the Brick Section of the B.A.A. are affiliated to the British Brick Society.

EDITORIAL

In my previous editorial I mentioned that Laurence Harley was one of the two people who, in about 1969, invited me to join a group under the name of the British Brick Society. It is therefore particularly sad to have to record the death of Laurence Harley, after a long illness, on Saturday 5 November 1983. I still recall my first meeting with Laurence, on Ipswich station, and the warmth of personality which impressed me so much then and later. I recall too the wit which he displayed as he, Geoffrey Hines, and myself walked around part of Ipswich clutching bricks in our hands! Always generous with his time and knowledge, he readily accepted an invitation to chair a regional meeting which I helped to organise at Bedford some ten years ago, and the success of that occasion was in no small part due to his fine ability as chairman. He it was who encouraged me to look more closely at the individual bricks of those brick buildings in which I was interested, and many others too must be grateful for Laurence Harley's help and encouragement. It is fitting that this issue of Information should begin with a tribute to Laurence Harley, Past President of the British Brick Society, from one who knew him far better than I.

May I repeat my request, from the previous issue, for material for Information? Articles, notes, queries, and replies to queries are all needed. The deadline must be one month ahead of publication date: that is, for issue 33 (May 1984) the deadline is the last day of March 1984; for issue 34 (November 1984) the last day of September 1984. I look forward to receiving 'copy' for these, and future, issues of Information.

TERENCE PAUL SMITH

32 INFORMATION 32

TO CELEBRATE THE MEMORY OF

LAURENCE SHEPHEARD HARLEY

All who saw our Founder-President in March 1982 at the Annual General Meeting at Layer Marney Tower knew that he was even then far from well. It had been gracious of him to attend, and he endured with fortitude the long illness which soon followed. He was 82 years of age when he died, on 5 November 1983.

Terence Smith, our Editor, says almost all when he writes of Laurence's 'warmth and generosity of knowledge - also his wit'. Who else, bearing a brick through a street, should express apprehension lest a policeman appear and get the wrong notion!

It was on 16 March 1971 that Laurence Harley first put on paper his interest in a 'Brick Society', although he had talked of it for some years before then. Characteristically, he posed the crucial question at the outset: this was 'whether it should be a new part of an existing society or a separate organisation', adding, 'Is the specialisation too great for such a separate organisation to survive?' It was due to his diplomacy - he had served awhile in H.M. Diplomatic Service - enthusiasm and command of detail that, from its inception, the Society operated simultaneously in both settings. No-one else could have negotiated the making of a Brick Section to the British Archaeological Association along with the inauguration of the British Brick Society to which the Brick Section members belonged. The publication of his paper on a brick typology¹ put substance into this partnership.

Educated at Dame Alice Owen's School, Laurence graduated from Imperial College, University of London in 1921 with a B.Sc. Engineering, proceeding to Mullard where he worked as engineer/physicist until, in 1938, he joined the Air Ministry to become one of the team at Bawdsey Manor that gave us Radar - and a major impulse towards air supremacy. His Fellowship of the Institute of Electrical Engineers came, en route. His Civil Service career culminated in leading the Central Radio Bureau of the Cabinet Office and, as mentioned, he worked for the Diplomatic Service. Like the late Lord Rutherford, Laurence possessed a scientific virtue which was a mixture of insight, an ability to 'see round the corner', and the gift for devising amazingly 'simple' applications as when, confronted by an emergency icing problem in radar antennae in Alaska, he sent a coded signal: 'Rub yellow household soap on 'em.' It worked!

Consequently, archaeology, for Laurence, was less a hobby than yet another 'application'. The most dramatic meeting of the 'Two Harleys' was, surely, when the sixteenth-century brass of Katherine Howard in Stoke-by-Nayland church² was stolen and found later in a ditch, badly warped. How to straighten a sixteenth-century brass without damage? Having analysed a sample of the metal and made his calculations, Laurence took the brass to the Engineering Laboratories at Cambridge, had it heated to a predetermined temperature, and then brought the Laboratories' 500-ton hydraulic-press to bear upon it at minimum speed. That worked too.

It had been a monograph on clay-pipes categorised by the internal diameters of their stems which brought him his Fellowship of the Society of Antiquaries.

These qualities meant everything to our Society in its early days. For many of us, none of these achievements count for more than do our memories of his friendship. Terence Smith recalls with gratitude the help he had, from the Chair, at one of our first Regional Symposia. We all have our own memories. This writer's include a painstaking recording of a variety of nineteenth-century frog-marks at a rescue-site in a down-town street and a sharing of information

such as many would hug to their chest. Always he gave not only this generosity of 'knowledge' but also of his time and, for those who were privileged to visit Street House, the ready hospitality and that of his wife, Shela, to whom every member will extend sympathy for the loss of a companionship which had begun when both were in their teens.

Notes

1. J.S.Harley, 'A Typology of Brick: with Numerical Coding of Brick Characteristics', Journal of the British Archaeological Association, 3rd series, 38, 1974, 63-87.
2. Lady Howard died in 1465, but this brass was not made until 1535.

BRICK PRICES AND THE COST OF LIVING: 1700-1828

Terence Paul Smith

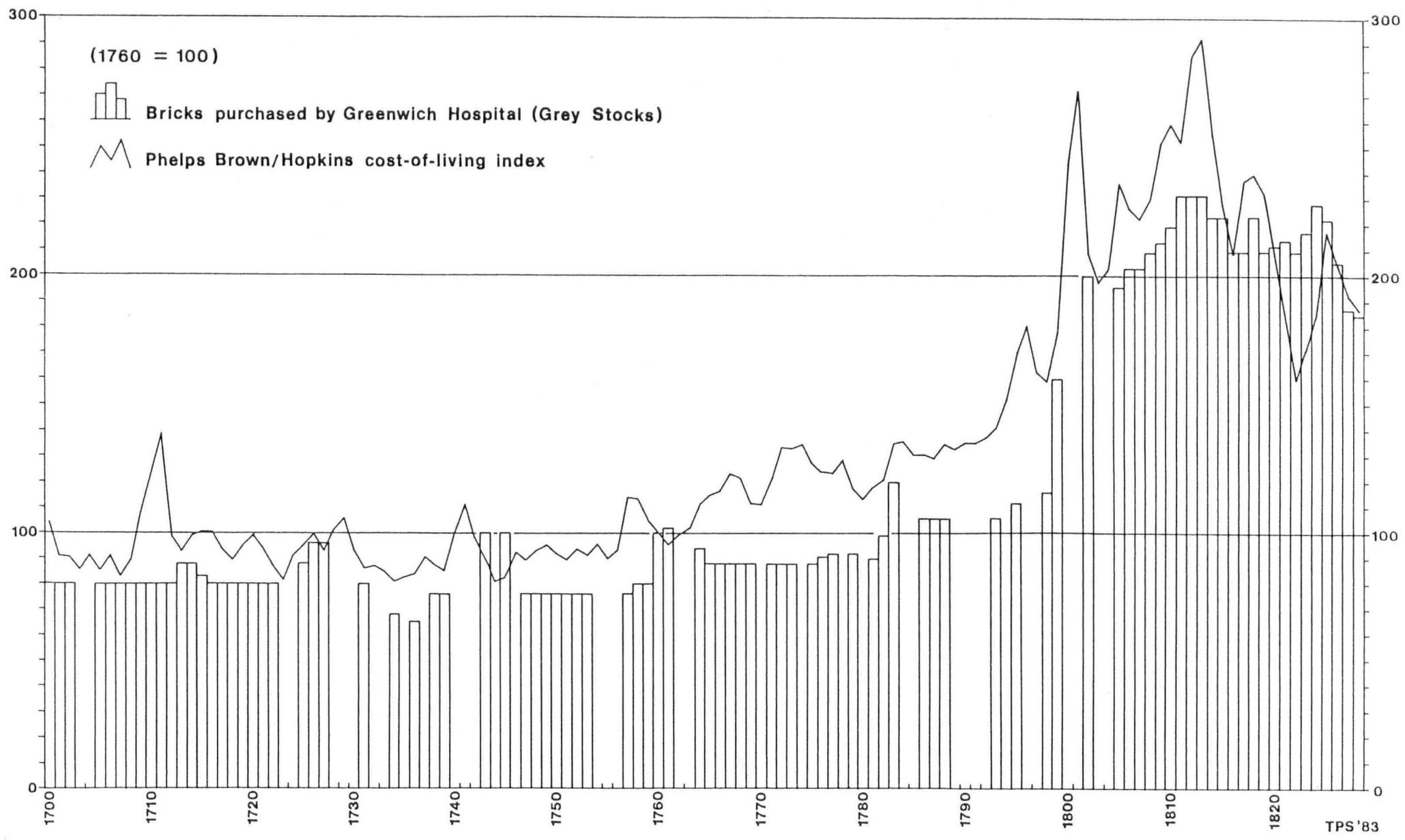
The accompanying graph compares one set of brick prices with changes in the cost of living for the period 1700-1828. Unlike a previous graph,¹ this uses indexical figures (1760 = 100), so that comparison with the well-known Phelps Brown/Hopkins cost-of-living index is facilitated.² The prices used are those of grey stocks purchased by Greenwich Hospital, which form a fairly complete series for the period covered.³

For quite long periods prices were remarkably stable, despite fluctuations in the cost of living: this is notable in the years 1700-22, 1746-53, and 1765-81. Fluctuations in brick prices within these periods are small. Probably, this reflects the fact that these prices were fixed by long-running contracts, and smaller-scale purchasers probably felt the effects of the cost of living rather more acutely. Rises often follow after a short time-lag - as indeed we should expect. Thus, for example, the rise in cost of living of 1708-11 was followed by a small rise in brick prices in 1713-14, whilst the cost-of-living increase of 1740-42 was followed by a more dramatic rise in brick prices in 1743-5. What is more interesting, and significant, is the rise in brick prices from the 1780s. It is clear that this was part of the general price-rise, attributable to the Napoleonic Wars; and that, therefore, the sharp rise in brick prices can no longer be assumed to be an effect of the Brick Tax, first imposed in 1784. Indeed, the suppliers to Greenwich Hospital even managed to reduce prices in 1786-8 from what they had been in 1783 - one year before the Tax! Thereafter, rises in brick prices are again related to the general trends, not to subsequent increases in the Tax. Clearly, there were ways in which brickyards could 'absorb' the Tax without passing it onto the customers.⁴

Notes and References

1. T.P.Smith, 'Refacing with Brick-Tiles', Vernacular Architecture, 10, 1979, 33-6; this ref. to fig.1, p.35.
2. E.H.Phelps Brown and S.V.Hopkins, 'Seven Centuries of the Prices of Consumables, Compared with Builders' Wage Rates', Economica, 23, 1956, 296-314.
3. W.Beveridge et al., Prices and Wages in England from the Twelfth to the Nineteenth Century, vol.1, London, 1965, p.298.
4. E.g. by increasing efficiency at the yard, by laying off workers, or even by accepting slightly lower profits; cf. Smith, op.cit., 33.

Brick Prices and the cost of living 1700-1828



TAXES AND BRICKS: WEALTHY MEN AND THEIR BUILDINGS IN EARLY TUDOR NORFOLK

David H. Kennett

In 1523 the impecunious government of King Henry VIII sought to raise a new tax on the whole of the population of England,¹ based on the traditional medieval system of taxation at a 'tenth' for the towns and at a 'fifteenth' for all other places. Unlike the earlier system, Henry VIII's tax was to apply to all men, irrespective of economic standing. Thus, labourers paid a tax of 4d on their wages of £1 per annum. Those better able to do so paid at a much higher rate, and the most prosperous paid more than once. Before the general levying of the tax in 1524 there was what is generally known as the Anticipation. As the commission to Sir Roger Townshend, Knight, and Thomas Strange, Esquire, for Norfolk puts it, they were 'authorised ... particularly to receive all and singular sums of money by way of anticipation of all subjects within the county of Norfolk having £40 in goods or lands or above.'² After paying both the Anticipation and the general levy, those best able to pay were amerced twice again, although the Suffolk returns for these later taxes make it clear that much less was raised and that many fewer paid at the third and fourth times of asking. Many indeed paid more in the Anticipation than they did in the general subsidy.³

A number of subsidy rolls arising from the 1524 taxation have been printed by local record societies.⁴ In so far as use has been made of them they have been seen as 'a directory of the upper, middle and lower classes, and near enough to the earliest parish registers to serve as some basis for genealogical tree-planting.'⁵ More recently the use of these documents in population studies has been on a wider compass, embracing areas such as social structure; the last-named has been general rather than specific.⁶ As far as the author is aware, there has been no previous attempt to correlate any of these documents with surviving buildings.

The present brief paper seeks to present a list, given in Appendix I, of those who paid the Anticipation in Norfolk on 2 November 1523 and to correlate this with the buildings known to have been erected by the payers or their immediate forebears. Those whose wealth was assessed at £60 or more are listed in full in Appendix I. The merchants of Lynn Episcopi, now King's Lynn, are an exception to this. The four most wealthy are included in Appendix I; the others are omitted: no attempt has been made to locate buildings erected by them.

The printed record of the Anticipation in Norfolk is not quite complete. The final paragraph of the roll records 'all those other hundreds and towns within the county of which bills were not delivered to' Sir Roger Townshend and Thomas Strange. These were: Launditch Hundred, South Greenhoe Hundred, Wayland Hundred, Grimshoe Hundred, and the town of Thetford.⁷ No return is included for Norwich. As a county in its own right, Norwich had its own commissioners for the subsidy.

To a certain extent these are not serious omissions and in one case the lack of a document for 1523 can be remedied by the printed transcript of a rather later subsidy. In 1944 the Norfolk Record Society published the assessors' certificates for the Norfolk Hundreds of Depwade, South Greenhoe, Henstead, Mitford, and Shropham arising from the lay subsidy of 1581.⁸ One wealthy payer, Sir Edward Bedingfield, in Oxborough, can be inserted from this into the general scheme. Sir Edward

was a descendant of the Bedingfield who would have been recorded in 1523; for this reason the forename is left blank in Appendix I. No attempt has been made to correlate the payment of £200 in 1581 with the payment of an amount, whether greater or smaller, in 1523. Wealth on this scale implies, nevertheless, a liability to a similar level of taxation at both dates. For what it may indicate, Edward Knyvett in 1523 was assessed at £180; his descendant, Sir Thomas Knyvett, in 1581 was considered to be worth £40. Similarly, John Shelton in 1523 paid on lands valued at £200; Thomas Shelton in 1581 had no more than £22 as his patrimony. If these comparisons suggest any correlation, it is that perhaps the position of the Bedingfield family in 1523 should be revised upwards and their assessed wealth is perhaps nearer to £1,000 than to £200. With this proviso, the listing in Appendix I suggests a comparative indication of wealth for early Tudor Norfolk. Excluding merchants in Lynn, the twenty most wealthy men deserve a more detailed examination.⁹

The list is headed by Henry Fermour, gentleman, of East Barsham. His wealth was built on the ownership of large flocks of sheep. He held twenty-five grounds which supported more than 17,000 sheep. On the profits arising from their fleeces he built East Barsham Manor House in the 1520s and earlier. The house is a single range with a detached gatehouse, both in red brick and both adorned with the royal arms, a rare distinction for any building. Those carved in brick and set within the panel above the porch to the house have as supporters a griffin and a greyhound, the style in use before 1527; the gatehouse has a griffin and a lion as supporters, the later adoption. The decoration of both house and gatehouse is rich: panels of carved brick, angle-buttresses of brick, brick finials, and ranks of brick chimneys. An indication of the social standing of the owner is given by sole pilgrimage of King Henry VIII to the shrine at Little Walsingham. On the night before he walked barefoot to the shrine, the king was entertained by Sir Henry Fermour at East Barsham. This was not Sir Henry's only house. He also built a courtyard house at Thorpland Hall, near Fakenham, of which one range survives. Built of white brick, it too has polygonal angle-shafts with finials and ranks of carved brick chimneys.

One of the sources of wealth whereon the Townshend estate at East Raynham and elsewhere was enacted was sheep. In the 1540s a portion of the flock was accounted to be 4,000 sheep. Unlike the Fermours, the Townshends had been a landed family for some generations by 1523. They are first recorded as owning land in East Raynham in the late fourteenth century. Prior to the building of Raynham Hall in 1622, the family lived in a large brick house on a site north-west of the present house. Parts of this courtyard house survive beside the River Wensum; parts have been remodelled as stables and barns, and the gatehouse has been converted into a large estate cottage. The building lacks a full study but personal fieldwork suggests that the red brick complex was begun in the second half of the fifteenth century.

It is uncertain, from the document under consideration, whether John Heydon of Stody or Henry Heydon of Thwaite near Aylsham should be connected with either Baconsthorpe Castle, near Holt, or Heydon Hall, Saxlingham, also near Holt. Both buildings are now ruinous. Little remains of the second. At Baconsthorpe Castle, brick is the load-bearing material but is faced with knapped flint.

Of the Paston family's house at their eponymous village nothing now remains. In 1523 they were, of course, the owners of and lived in Sir John Fastolf's Caister Castle, built of red brick in the period 1432-5. They did retain a house at Paston, and family members were buried in the nearby Broomholm Priory. Probably, like the surviving great barn of 1581, the house at Paston was built of flint rather than brick.

No place in Blofield Hundred is given for Leonard Spencer. Of his building activities, in any, nothing is known. Sir Robert Clere at Ormesby St Margaret died in 1529; the church there contains a large brass commemorating him and his wife. Their house is unknown. It was presumably superseded by one of several major Georgian houses in the village, none of which is known to incorporate an earlier structure. At Moulton St Mary the small kneeling figure commemorating Thomasine Palmer, died 1544, is the only local connexion known for Henry Palmer, recorded in the Anticipation of 1523. Even this tenuous link is missing for men such as John Steele of an unknown village in North Greenhoe Hundred (an area which includes Wells-next-the-Sea, Little Walsingham, and Fakenham), John Pepys of South Creak, John Stede of Warham, and John King of Morston. Even with William Cobbys of Sandringham it is speculation that he was the owner of a predecessor of the present Sandringham House.

Much less uncertainty concerns the four remaining gentlemen to be considered. John Shelton of Shelton was the son of the builder of St Mary's Church, Shelton, wholly of red brick apart from the stone dressings and the west tower; the latter is of flint and is derived from a fourteenth-century and earlier structure. The church has an internal arcade of six bays without structural division between nave and chancel, although the wooden rood screen (surviving only in the dado) separates off the whole east end, creating the effect of an aisled chancel. As Sir Nikolaus Pevsner observes, the church represents the latest thinking in liturgical arrangement at the end of the fifteenth century. Sir Ralph Shelton, the church builder, died in 1487, and ordered the completion of the church in his will. It was half-heartedly done: the clerestory of nine lights has fittings for a hammer-beam roof but none was provided, and the upper room of the porch remains a vacant space with the springers of the vault to carry its floors uncompleted. Sir Ralph Shelton also built the now demolished Shelton Hall, a courtyard house of red brick. A sixteenth-century drawing of the house shows an elaborate gatehouse of two storeys with an attic flanked by what appear to be polygonal turrets whose decorative scheme is arranged in four tiers. The curtain-wall of the house has plain polygonal turrets.¹⁰ As with Sir Henry Fermour at East Barsham and the Bedingfields at Oxburgh Hall, the Shelton family had strong court connexions. Sir John Shelton married an Anne Boleyn, of the Blickling family, the aunt of Henry VIII's second queen. Lady Shelton was first governor to Princess Mary and second guardian to Princess Elizabeth.

Built by a member of the Shelton family was Great Snoring Rectory. Sir Ralph Shelton, who may have built this large red brick house in 1525, does not appear in the document under discussion unless he is the Ralph Shelton recorded at Broome, in the Waveney Valley, paying on an assessment of £40. The house has brick polygonal turrets, a terracotta frieze between the first and second stages, another above the second stage in the gable ends, and ranks of rich chimneys.

Notice has already been given of the Bedingfield family recorded at Oxborough. Their house, Oxburgh Hall, is one of the great masterworks of fifteenth-century brick architecture. Licence to crenellate was granted to Sir Edmund Bedingfield on 3 July 1482. The house was sufficiently advanced for King Henry VII and Queen Elizabeth to visit it in 1487; a later Bedingfield had custody of Queen Katherine of Aragon after the divorce, and his son, the Sir Henry Bedingfield of the 1581 taxation record, was Governor of the Tower of London under Mary Tudor, one of his rewards for supporting her claim to the throne in 1553. Elizabeth I visited Oxburgh Hall in 1578. Court connexions in the reign of Henry VIII need further delineation. The second wife of the builder was Grace Marney, daughter of Henry Lord Marney, builder of

Layer Marney Tower in Essex, who preceded Wolsey as chief advisor to Henry VIII. Incidentally, the first wife of Sir Edmund Bedingfield was Anne Shelton, daughter of Sir Ralph Shelton, builder of Shelton Hall and Shelton Church.

The chief architectural feature surviving from the original building at Oxburgh Hall is the gatehouse of three storeys flanked by polygonal turrets divided into seven tiers. Although much restored by Pugin, this courtyard house in red brick retains its original north, east, and west ranges; demolished are a south-west tower and the south range with the great hall and the great kitchen.

The Bedingfield Chapel beside the chancel of St John the Evangelist's Church at Oxborough was constructed after 1514. It contains two fine terracotta tombs attributed to Sir Edmund Bedingfield and his wife Grace. They are of the same style as but superior to those of Henry Lord Marney and his son in Layer Marney Church. The father died in 1523, the son in 1525; Sir Edmund Bedingfield was responsible for the completion of their funeral monuments.

Much less remains of the houses connected with Humphrey Kervile at Wiggenhall St Mary or with Walter Hobart at Hales Hall. St Mary's Hall at Wiggenhall is a mid-Victorian house which includes the façade with polygonal turrets of the gatehouse, originally built around 1500 for the Kervile family. The house has not been studied. Of Hales Hall, merely a barn and a subsidiary gatehouse range (now a farmhouse) of an outer court remain. The courtyard house set within its own moat has been demolished except for the base of an octagonal corner-turret. The house was built for Henry VII's attorney general, Sir James Hobart. He also built Loddon Church, of brick with knapped flint facings.

Like St Mary's Hall, Wiggenhall, the quadrangular house known as Kimberley Old Hall has not been studied in depth. It is of brick, of an ill-defined date in the fifteenth century, and was built for the Woodhouse family, owners of the manor from 1384 to 1957.

A much less substantial and far less richly decorated house than those discussed is Barnham Broom Hall, built by a member of the Chamberlain family in the early sixteenth century, perhaps the Edward Chamberlain assessed at £90. It consists of a single range of red brick with diapered blue brick in a recurring diamond pattern.

Belonging to men of less elevated status are two other early brick houses in Norfolk. There is a fifteenth-century polygonal brick tower surviving from and attached to an Elizabethan 'E-plan' house known as Fincham Hall. John Fincham's wealth was assessed at 70 marks (£46 13s 4d) in the 1523 Anticipation. Goods rather than lands formed the basis of the assessment of William Skipwith. His moveable possessions were valued at the minimum level for the Anticipation of £40. Snore Hall, Fordham was built by a member of the Skipwith family in the fifteenth century. Apart from some blank arcading and an oriel window, the surviving work is not richly ornamented. In both Snore Hall and Fincham Hall decoration is minimal; neither is a large house.

Few of the known early brick houses of Norfolk have not been mentioned in this brief paper. These include three which were standing in 1523 but whose owners were either not taxed in Norfolk or whose entry in the document is incomplete. The farmhouse known as Kenninghall Place is a minor range from a large mansion built by the third Duke of Norfolk in the early sixteenth century. The house was of several courtyards. Thomas Howard was assessed neither in Norfolk nor in Suffolk in 1523: he had property in other counties too. East Harling Manor was a major brick house demolished in 1805. Over its porch was the medallion of the builder, Thomas Lovell, which is now in Westminster Abbey, executed for him by Pietro Torrigiano. Lovell was the executor of Lady Margaret Beaufort, mother of King Henry VII, specifically charged with

the erection of her tomb. A Sir Thomas Lovell appears in the 1523 document, but under Clackhouse Hundred, and with neither a specific place nor an assessment being mentioned. The courtier died in 1524. Middleton Tower in 1523 was the property of the de Vere family, who would be assessed under Essex: they were the owners of Castle Hedingham. The house was built by Thomas, seventh Lord Scales, whose daughter was the sister-in-law of King Edward IV.

This brief paper has been designed to correlate wealth (as expressed in liability to tax) with surviving buildings. Almost without exception the houses mentioned have been built for men of considerable means and often these men lived in a milieu which can only be described as a court culture.¹¹

APPENDIX I: THE ANTICIPATION OF 1523 IN NORFOLK

(Sums given in marks have been converted to pounds: 1 mark = 13s 4d = £0.33.)

<u>Sum</u> <u>£</u>	<u>Name</u>	<u>Place</u>	<u>Buildings</u>
666 $\frac{2}{3}$	Henry Fermour	East Barsham	{East Barsham Manor {Thorpland Hall
600	Sir Roger Townshend	East Raynham	Raynham Old Hall
600	Thomas Guybon	Lynn Episcopi	-
400	John Heydon	Stody	-
300	William Paston	Paston	-
227 $\frac{2}{3}$	Leonard Spencer	Blofield Hundred (no place given)	-
200	John Shelton	Shelton	{Shelton Hall {Shelton Church {Great Snoring Rectory
200	— Bedingfield	Oxborough	{Oxburgh Hall {Chapel in Oxborough Church
200	Humphrey Kervile	Wiggenhall	St Mary's Hall, Wiggen- hall
200	Thomas Miller	Lynn Episcopi	-
200	William Castell	Lynn Episcopi	-
200	Thomas Leighton	Lynn Episcopi	-
180	Edward Knyvett	Wymondham	-
180	Walter Hobart	Loddon	{Hales Hall {Loddon Church
180	Robert Clere	Ormesby	-
160	Henry Palmer	Moulton St Mary	-
160	John Steele	North Greenhoe Hundred	-
160	John Pepys	South Creake	-
160	William Cobbys	Sandringham	-
160 ^a	John Berney	Reedham	-
160 ^a	John Stede	Warham	-

<u>Sum</u> <u>£</u>	<u>Name</u>	<u>Place</u>	<u>Buildings</u>
140	John King	Morston	-
140	Thomas Woodhouse	Kimberley	Kimberley Old Hall
140 ^a	Henry Heydon	Thwaite	-
133 ² / ₃	Thomas Flyte	Cokesford (in Tittlehsall parish)	-
120	John Jermy	Taverham Hundred (no place given)	-
120	John Doke	Runham	-
120 ^a	William Pennyngton	Roudham	-
120	Edward Bedingfield	Great Bircham	-
120	Robert Seagrave	Tilney	-
100	Miles Hobart	Blofield Hundred (no place given)	-
100	William Corbett	Morston	-
100	William Keswike	Walsingham	-
100	John Gott	Walsingham	-
100	Robert Wolvey	East Raynham	-
100	John Calybut	Castle Acre	-
100	Robert Brown	Walsingham	-
90	Edward Chamberlain	Barnham Broom	Barnham Broom Hall
80	Thomas Robins	Cromer	-
80	Donna Lobell	Hingham	-
80	John Cusshyn	Hingham	-
80	John Brampton	Brampton	-
80	Stephen Bolt	Sco Ruston	-
80	Simon Skottow	Aylsham	-
80	Henry Hunston	Walpole	-
80	John Gressenow	Attleborough	-
80 ^a	John Grenway	Wiveton	-
80	John Dey	Wiveton	-
70 ^a	John Nash	Swainsthorpe	-
70	John Cawston	Mautby	-
66 ² / ₃	Thomas Burgeys	Sheringham	-
66 ² / ₃	Thomas Astley	Melton Constable	-
66 ² / ₃	William Greve	Stiffkey	-
66 ² / ₃	Thomas Reynes	Heveningham	-
66 ² / ₃	Henry Riches	Swanington	-
66 ² / ₃	John Lynghoke	Terrington	-
66 ² / ₃	Ela Elwyn, widow	Wiggenhall	-

<u>Sum</u> <u>£</u>	<u>Name</u>	<u>Place</u>	<u>Buildings</u>
66 $\frac{2}{3}$	Thomas Dereham	Crimpleham	-
60	Richard Calthorpe	Overstrand	-
60	William Ugges	Pockthorpe	-
60	Robert Playford	Brinton	-
60	John Westow	Walsingham	-
60	Richard Bolter	South Creake	-
60	Andrew Hogard	Oxnead	-
60	John Crosse	Crostwight	-
60	Robert Heylesdon	North Walsham	-
60	William Lever	North Walsham	-
60	Thomas Colvyle	West Flegg Hundred (no place given)	-
60	William Robins	South Lynn	-
60	John Reppys	West Walton	-
60	Richard Gawsell	Watlington	-
60	Robert Hereward	Booton	-

a indicates paid on goods, not lands.

Notes and References

1. For background to the tax see J.Sheail, 'The Distribution of Taxable Population and Wealth in England during the Early Sixteenth Century', Trans.Inst.Brit.Geogr., publication no.55, 1971; summaries W.G.Hoskins, The Age of Plunder, the England of Henry VIII, 1500-1547, 1976, pp.1-52 with bibliography there cited. The introductions to editions of the tax cited in notes also provide valuable considerations of the levying of the subsidy.
2. W.Rye, ed., 'Norfolk Subsidy Roll, 15 Henry VIII', Norfolk Antiquarian Miscellany, 2, 1883, 399-410; the quotation, with the original spelling, is at ibid., 399.
3. S.H.A.Hervey, ed., Suffolk in 1524, being the Return for a Subsidy Granted in 1523, Suffolk Green Books, 10, 1910, prints the Act of Subsidy, pp.390-95; payments for a third year (viz. 1526), pp.396-402; and the Anticipation, pp.402-28. It is hoped to examine this record in relation to Suffolk buildings in due course.
4. Apart from Hervey, 1910, for Suffolk, other printed rolls of the 1524 subsidy are: A.C.Chibnall and A.Vere Woodman, Subsidy Roll for the County of Bucks, 1524, Bucks.Rec.Soc., 1950; J.Cornwall, ed., Lay Subsidy Roll, 1524-5, Sussex Rec.Soc., 56, 1956. The latter would repay study in relation to brick buildings.
5. M.W.Beresford, 'The Lay Subsidies', Amateur Historian, 4/3, 1959, cited in J.West, Village Records, 1962, reprinted 1982, p.44.
6. Recent work is summarised in Hoskins, 1976.
7. Rye, 1883, 410.

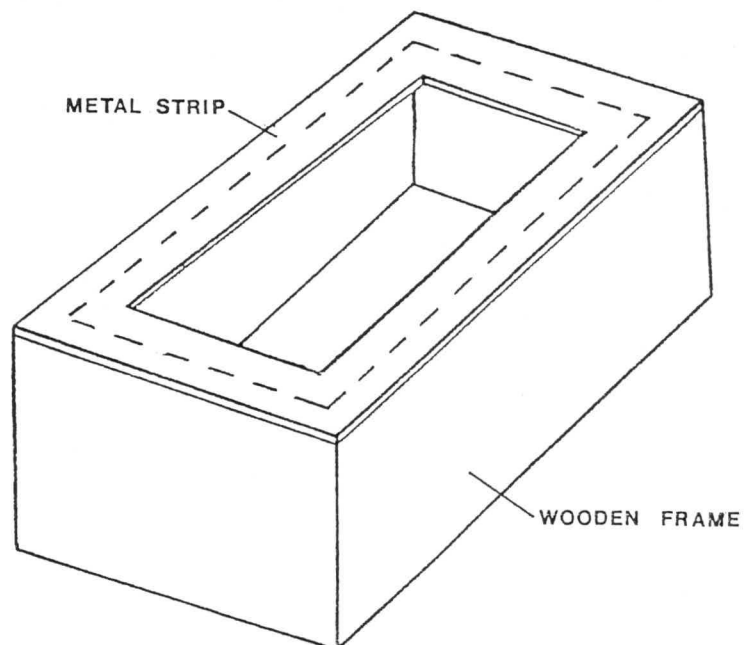
8. E.D.Stone, ed., 'The Lay Subsidy of 1581', Norfolk Rec.Soc., 17, 1944, 96-127.
9. Apart from personal observation, information on the buildings has been gathered from many sources. There are convenient summary accounts in N.Pevsner, The Buildings of England: North-East Norfolk and Norwich, 1952, and N.Pevsner, The Buildings of England: North-West and South Norfolk, 1962; more recent account with splendid illustrations in M.Sayer, 'Norfolk', in H.Montgomery-Massingberd, ed., Burke's and Savill's Guide to Country Houses, Volume III, East Anglia, 1981, pp.81-210. J.Wight, Brick Building in England from the Middle Ages to 1550, 1972, pp.318-52, with selected illustrations, has much personal background to the builders of the houses discussed. Individual houses are not specifically noted in further notes.
10. Conveniently D.Yaxley, Portrait of Norfolk, 1977, unnumbered plate between pp.160, 161.
11. Paper written November 1983; it represents work done at various dates between early 1975 and then.

BRICKS WITH SUNKEN MARGINS

M. G. Reeder

R.J. and P.E.Firman's cautionary words on blanket classification of bricks is most welcome.¹ To class all bricks, of whatever date, having straw marks as 'in situ frame-made' would be to create yet another inaccurate rule. Every brick or group of bricks needs to be studied very closely and related to the area, materials available, and the technology available for production at the estimated date. As with most subjects, the closer one looks the wider becomes the field of study necessary in order to answer all the questions raised.

Many excellent stock moulded bricks have surely been made throughout the ages. In Britain, from the Romans through to today, where suitable clay occurred, or for special persons it could be obtained, stock bricks were made and used. For the rest, most pre-seventeenth-century bricks must have been made at, or close to, the building site, using material dug adjacent to the brickmaking site, using no machinery other than simple carts or barrows for very short distance transport. Therefore, the quality of bricks would vary from the



inadequate to the very good.

Of the early bricks that I have found most have come from brick-making sites and are unused.² A few have come from rubble infills and others are to be seen as bonding in church flint walling. I doubt if many complete walls were built of these rough bricks: they were used as wall-ties in flint walls, as brick bases for timber walls, and as chimneys. Few of these bricks have survived. The inferior ones crumbled long ago. The rest served as hardcore, being too coarse and troublesome for re-use.

Incidentally, having seen sunken-margin bricks, I assumed the frame reinforcement to be metal (see sketch on previous page). Where did the idea of leather originate?

Notes and References

1. R.J. and P.E.Firman, 'Bricks with Sunken Margins', BBS Information, 31, November 1983, 3-5.
2. M.G.Reeder, 'An Early Brickmaking Site', BBS Information, 19, November 1979; M.G.Reeder, 'More Bricks from the Marshes', BBS Information, 22, November 1980.

K-MARKED BRICKS

M.G. Reeder

With reference to Query 4 in Information 31,¹ I have in my collection many K-marked bricks with numbers from 1 to 8. Some of these are red and some yellow; the numbers do not seem to denote the colour or any other feature of the bricks. I had assumed that these bricks came from the Somerleyton brickworks whilst it was in the control of the Knights family from 1875 to 1893.

Audrey and Arnold Butler, when researching the history of the Somerleyton brickworks, could find no documentary evidence of Knights having changed the marks on their bricks from 'L' in 1875, when after nearly fifteen years as manager for Lucas he became the proprietor. However, as these bricks kept turning up all around this area, and seemed to be of the right date, together we searched the Somerleyton brickworks site and found several K-bricks.











We are now reasonably convinced that these bricks were made between 1875 and 1893 by Knights of Somerleyton.²

The accompanying chart gives details of bricks found.³

References



1. T.P.Smith, Query 4, BBS Information, 31, November 1983, 26.
2. A. and A.Butler, Somerleyton Brickfields, 2nd ed., 1980; 'Somerleyton Brick Book', BBS Information, 23, January 1981.
3. (The Burgh Castle bricks have been included by the editor: details are less complete than Mr Reeder's. TPS).

K-MARKED BRICKS (KNIGHTS)

Ref.no. M.G.R.	Size inches mm. Length/Breadth/ Thickness	Colour	Frog size { inches mm. L / B / Depth Section	Frog mark and shape	Weight	Texture
9	$9\frac{7}{16} \times 4\frac{5}{8} \times 2\frac{1}{2}$ 240 x 118 x 63	Salmon	None: just impressed mark	K1	7-10	Dense hard
10	$9\frac{3}{8} \times 4\frac{9}{16} \times 2\frac{5}{8}$ 238 x 116 x 67	Indian Red	$4\frac{1}{8} \times 2\frac{13}{16} \times \frac{7}{16}$ 105 x 72 x 11 	1K	5-14	Coarse flaking
11	$9\frac{3}{8} \times 4\frac{9}{16} \times 2\frac{5}{8}$ 238 x 116 x 67	Indian Red	$4\frac{1}{8} \times 2\frac{13}{16} \times \frac{7}{16}$ 105 x 72 x 11 	2K inverted 2	5-14	Coarse flaking
12	? $4\frac{3}{8} \times 2\frac{3}{4}$ 111 x 70	Off White	$6\frac{7}{8} \times 2\frac{3}{4} \times \frac{5}{16}$ 175 x 70 x 7 	K4	not complete	Dense hard
13	$9\frac{3}{16} \times 4\frac{3}{8} \times 2\frac{5}{8}$ 234 x 111 x 67	Orange Red	$7\frac{5}{16} \times 2\frac{3}{4} \times \frac{5}{16}$ 185 x 70 x 7 	K6 large clear marks	6-14	Dense hard
14	$9\frac{3}{16} \times 4\frac{3}{8} \times 2\frac{5}{8}$ 234 x 111 x 67	Orange Red	$6\frac{7}{8} \times 2\frac{3}{4} \times \frac{1}{4}$ 175 x 70 x 6 	K7 small vague marks	7-2	Dense hard
15	$9\frac{3}{16} \times 4\frac{3}{8} \times 2\frac{5}{8}$ 234 x 111 x 67	Orange Red	$5\frac{1}{2} \times 2\frac{11}{16} \times \frac{5}{16}$ 140 x 68 x 8 	K7 small clear marks	7-1	Dense hard
19	? $4\frac{7}{16} \times 2\frac{7}{16}$ 113 x 62	Indian Red	? $3 \times \frac{5}{16}$ 75 x 8 	Y8 leg of 'K' missing	not complete	Coarse sandy
43	$9\frac{1}{4} \times 4\frac{3}{8} \times 2\frac{1}{8}$ 235 x 111 x 54	Off White	$6\frac{1}{2} \times 2\frac{5}{8} \times \frac{5}{8}$ 165 x 67 x 15 	K3	4-10	Dense sandy
44	$9\frac{1}{4} \times 4\frac{3}{8} \times 2\frac{5}{8}$ 235 x 111 x 67	Salmon	$6\frac{1}{2} \times 2\frac{5}{8} \times \frac{3}{16}$ 165 x 67 x 5 	K6	7-1	Dense hard
45	$9\frac{1}{4} \times 4\frac{3}{8} \times 2\frac{3}{4}$ 235 x 111 x 70	Salmon	$6 \times 2 \times \frac{5}{16}$ 153 x 51 x 8 	K7	7-0	Dense hard

K-MARKED BRICKS (KNIGHTS) (Continued)

Ref.no. M.G.R.	Inclusions	Surface marks	Where found
9	Stone up to approx. 1 x 1½"	Parallel stacking one LT & Strike off LB	Gunton, Lowestoft: rubbish tip
10	Large number stones up to ¾" diameter	Strike off LB	Decoy Farm, Flixton
11	Large number stones up to ¾" diameter	Strike off LB	Decoy Farm, Flixton
12	Very few small stones	Strike off LB	Decoy Farm, Flixton
13	Many small stones	Strike off LB	Decoy Farm, Flixton
14	None	Strike off LB	Decoy Farm, Flixton
15	None	Strike off LB	Decoy Farm, Flixton
19	Small white shell fragments	Strike off LB	Decoy Farm, Flixton
43	Stones up to 1" diameter	None	Behind Herringfleet Church
44	None	Parallel stacking one LT	Decoy Farm, Flixton
45	None	None	Decoy Farm, Flixton

Size inches mm.	Colour	Frog size { inches mm.	Section	Frog mark and shape	Where found
9¼ x 4½ x 2½ 235 x 114 x 63	Red	4⅜ x 2⅝ x ½ 111 x 67 x 13		K1	Castle Villa, Burgh Castle (TPS)
9¼ x 4½ x 2½ 235 x 114 x 63	Red	4⅜ x 2⅝ x ½ 111 x 67 x 13		K2	Castle Villa, Burgh Castle (TPS)

WHITEHEAD'S THREE-PROCESS MACHINES

Adrian Corder-Birch has sent in the following article from The Implement and Machinery Review for 1 April 1908; the full title is 'Whitehead's Three-Process Brick Making Machines', and the article is published anonymously. It is worth reprinting in full, though without the original illustrations, for those who are interested in the development of brick-making machinery. We are grateful to Adrian Corder-Birch for supplying this item.

(Page 1458) 'The reliability and usefulness of buildings made of brick have found permanent expression in the English language by the phrase "as safe as houses," and by the further expression, "a regular brick," denoting as this last does, a "jolly good fellow." At the Universities they also have a phrase, "to read like a brick," meaning to read hard. This is a bit of University slang of a somewhat punning character, and is said to have originated as follows:- A brick is deep red, so a deep-read man is a brick. To read like a brick is to read in order to become deep-read! Apart altogether from the humours of etymology, there can be no doubt that some kinds of clay, so plastic and yielding when in the ground, make a remarkably durable and substantial building material after pugmills and presses have been set to work upon it. Alfred the Great proved himself a wise monarch when he encouraged the manufacture of bricks in England about the year 886 A.D.,¹ although they are said to have been used in England by the Romans as early as A.D.44. Queen Elizabeth also took a great deal of interest in house building, and among other edicts she decreed a very sensible regulation in 1580, to the effect that one family only should live in one house. With regard to brick-making clays, these of course are numerous, but machinery is nowadays available which will give good results from materials which formerly were considered very unpromising.

'Brick makers who wish to ensure rapid and reliable work in an economical manner would do well to consult Messrs. John Whitehead & Co., Ltd., Albert Works, Preston, whose No.6 Combined Three-process Brick-making Machine ... we now illustrate [ref. to fig.1 in original]. The machine is capable of producing from 10,000 to 20,000 bricks per day, and takes 8 h.p. to drive it.

'This plant is intended, firstly, for crushing and grinding the clay, secondly for pugging, and thirdly for moulding the clay into bricks; whilst hauling gear can be added at any time, thus making the machine into a four-process apparatus. Serviceable, strong, and compact, the machine is self-contained on a strong cast-iron bed, and is / of modern construction throughout, thus reducing the need for repairs to a minimum. The crushing rollers are made on Messrs. Whitehead's improved principle, from a specially toughened mixture of the hardest irons; they cannot work loose upon the shafts, and are provided with adjustable scrapers and with automatic friction belts. Lined with best step metal the bearings of the rollers have a rapid adjusting arrangement, by means of which the rollers can almost immediately be set to any required distance apart, the operation occupying only a few seconds. Moreover, an effective arrangement is furnished for protecting the rollers from dirt.

'Messrs. Whitehead's improved thrust bearing is provided for taking the back pressure of the pugmill shaft, which is a forging of great strength, carrying the pugging knives and the clay propeller. All other shafts in the machine are of steel, finished bright throughout, and run in long bearings lined with steps of tough brass. The wheel gearing is strong and carefully proportioned.

'By simply changing the linings of the sies to suit the desired

pattern, it is also possible to produce in this machine bricks with ornamental moulds, bullnose, bevelled, and other shapes, and also paving tiles, whilst the press likewise makes pipes up to 6 in. diameter. A special table is required for pipes; whilst for bricks the makers supply the improved side delivery table.... [ref. to illustration in original].

[Also illustrated is the No.B2 Machine] 'which is capable of producing 5,000 bricks per day. The weight of this is 2¼ tons, and 6 n.h.p. is required to drive it.

'The machines referred to should be found very useful in cases where it is desired to complete the whole process from the raw clay to the finished brick or tile at once without the intervention of separate pieces of machinery. They appear to be well and soundly made in every part, and to be capable of effecting considerable economies.'

(The stroke (/) indicates the change from p.1458 to p.1459.)

Note

1. (This reference to Alfred the Great is entirely new to me. Where does it come from? If it is correct it would be of great interest in connexion with the whole issue of the Anglo-Saxon manufacture of bricks. Any suggestions? TPS).

New and Old Books from Shire. John Prothero - a BBS member - seems entitled to the pleasure with which he announces, in a note along with his Autumn list (1983), that he has 'held his prices for another year'.

For BBS members who have not yet obtained it, this means that Martin Hammond's Shire Album Bricks and Brickmaking still stands at 95p, as does John McCann's Clay and Cob Buildings. The useful book on Elementary Surveying for Industrial Archaeologists by Bodley and Hall is £1-95.

Regular free copies of these Shire catalogues may be had upon application to: Shire Publications Ltd, Cromwell House, Church Street, Princes Risborough, Aylesbury, Bucks. HP17 9AJ.

(Geoffrey Hines)

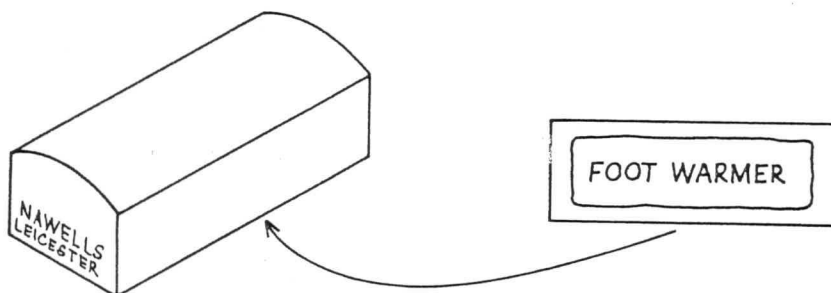
Bricks to Brum on the BCN. Philip Daniell, Secretary of the British Waterways Board and a member of BBS, has sent in a copy of Waterways News, 135, November 1983, which contains an article on p.3 about bricks delivered by Midland Canal Transport to Birmingham, where they will be used for the restoration of the stables at an old canal wharf in the city centre. Five loads of approximately 27,000 bricks have been delivered, in three ex-Grand Union boats, from Ibstock's Aldridge plant. The journey time was two days, with a few problems on the way. The stable, at Sheepcote Street Depot, has a unique horse-shoe shape, and was originally built, in 1940, for the London and North Western Railway as a mineral and coal wharf. It housed 49 horses in seven sets of stalls. It is being converted by Birmingham City Council as part of a major renovation for the whole depot. It is planned as a tourist spot, and may perhaps feature a canal museum. The bricks were delivered by water because of difficulty of access.

(TPS)

From: Geoffrey Hines. A westernmost frog? In 1981 there was a major reconstruction of the wall which supports the western side of Rhoscolyn Bay on Holy Island in the County of Anglesey (Môn to Welsh members), in North Wales - now a part of Gwynneth. The old wall was of brick and concrete and some of the old bricks litter the foreshore, one being intact. The approximate imperial size is 9 by 4½ by 2¾ inches (227 by 110 by 72 mm. precisely) and it weighs exactly 8 lb. dry. Smooth, just scratchable and light red, it has a 5-mm.-deep frog on one face and a shallow 2-mm.-deep frog on the other. In the deeper frog is stamped: SEIONT and below this: CAERNARVON. The shallow frog shows two round indentations 15-mm. diameter which may be the base of two handling sticks mortised into what would have been the 'top' of the mould - the frog-stamp being the 'bottom' or stock. Am I right? Later I hope to trace 'Seiont Caernarvon', the Roman name for which was Segontium. Any information in advance of next summer would be welcome. Replies to: Geoffrey Hines, 51 Marlborough Road, Ipswich, Suffolk, IP4 5BA.

From: Adrian Corder-Birch. I am in the process of compiling a book for publication and would appreciate any information, documents, photographs, accounts, maps, etc. about brick, tile, pottery, and drain-pipe works in the following towns and villages in North Essex (some of which are on the Essex/Suffolk border): Alphamstone, Ballingdon, Bocking, Bulmer, Bures Hamlet, Castle Hedingham, Sible Hedingham, Colne Engaine, Earls Colne, Wakes Colne, Gestingthorpe, Gosfield, Great Yeldham, Halstead, Haverhill Hamlet, High Garrett, Rayne Hatch, Stambourne, Stisted, Stoke-by-Clare, Steeple Bumpstead. Any documents or photographs etc. which are loaned to me I shall willingly have copied and I shall return the originals as quickly as possible. Replies to: Adrian Corder-Birch, F.Inst.L.Ex., 'Berriewood', Church Green, Little Yeldham, Halstead, Essex, CO9 4LB.

From: E.Marsh. A brick foot warmer. In Information 31, November 1983, 15, M.D.P.Hammond wrote of moth bricks. Here is another strange use of brick - as a foot warmer. It is a red brick with a domed top; there is a clear glaze except on the base. 'FOOT WARMER' is stamped in the shallow flat frog in the base, and on the end is stamped 'NAWELLS LEICESTER'. Any information on this would be gratefully received. Replies to: E.Marsh, 14 Eastern Close, Dogsthorpe, Peterborough, PE1 4PP.



(...and a warm bed! Mr Marsh's note reminds me that when my mother was a child, in a quite large working-class household in Luton, Beds. it was normal practice

QUERIES



in the winter to warm the bed by heating a brick in the oven, wrapping it in a cloth, and putting it in the bed - a sort of poor person's warming-pan! These of course were not special bricks, but any bricks which could be 'found'. Was this also a normal practice elsewhere?
T.P.Smith)

4 From: E.Marsh. At present I am making a record of any brickworks or single-kiln yards of England which I can find. I realise that this will be a great task and would be grateful for any information on this subject. Any information would not be used other than for a record for the BBS, if such a request were made.

Another project which I think would be of help to members of BBS in years to come is a record of brick markings. So many members have collections in which there must be many of interest, and I should like to see a central register of the BBS on this subject. This I could undertake to do, now that I am retired and have the time to spare. (The same conditions as above would apply to any information received.) I myself have a collection of over 200 from the Peterborough area; so there must be many hundreds. Information required would be: 1. Size of brick; 2. Type - e.g. facing, smooth, rough, colour, etc.; 3. Shape of frog, if any; 4. Marks in frog or elsewhere on the brick; 5. Maker, if known. Replies to: E.Marsh, 14 Eastern Close, Dogsthorpe, Peterborough, PE1 4PP.

Members' queries on any topic related to bricks, brickmaking, or brick building are welcome for this section. They should be short and should be accompanied by the member's name and full postal address. Longer queries may, of course, be included as articles within Information. Replies to queries may be addressed either direct to the address given or, where suitable, in the form of articles or notes to Information. In the case of the latter, answers should give a full reference, including page reference, to the original query: e.g. 'In Information, 29, February 1983, 11-12, Mr M.D.P.Hammond asks for details of some Scottish bricks...'.
TPS

MEDIEVAL BRICK MOULDS

Terence Paul Smith

In their discussion of bricks with sunken margins R.J. and P.E. Firman give evidence, from the physical appearance of some medieval bricks, that they were bench-moulded rather than frame-made in situ.¹ They also cite Jane Wight's interpretation of the well-known, because often reproduced, Utrecht Nederlandsche Bijbel illustration of c.1425;² it is difficult to disagree with Wight's interpretation,³ although the illustration is not absolutely clear on the point: but a bench is certainly in use, and apparently for moulding the bricks. But a better illustration, also Dutch, comes from half a century later; again it is a Bible illustration, dated c.1470, and now in the Austrian National Library at Vienna.⁴ In this case the moulding bench, placed in the open air, occupies the foreground. Just as in later hand-brickmaking, the moulder

has a dollop of clay on his bench; he is using a 'strike', in the form of a flat board with a handle, to remove excess clay, and the mould itself is remarkably recent in appearance: the two long sides project beyond the ends, just as in later moulds. A further mould is shown, being emptied onto the hackstead or drying-ground by an assistant. The bricks are laid flat and individually. They differ from modern English bricks by being less deep, and the mould of course is correspondingly shallow; Dutch bricks generally have kept this shape to the present day.

A permanent (brick or stone?) structure with a wooden pentice along at least one side is probably a kiln - a sort of early 'Scotch' type with a large arch for loading and unloading at the end and smaller arched fire-holes along the side, beneath the pentice. There is archaeological evidence for kilns of this type in the Netherlands during the Middle Ages.⁵

Two other men, behind the moulder, are carrying special backpacks or panniers, perhaps filled with clay for the moulder.

Incidentally, the brickyard is placed outside the town walls, as was usual in medieval times, on account, presumably, of the unpleasant and even dangerous fumes given off during firing.⁶

The advantage of this illustration over the earlier one from Utrecht is that there is no need of interpretation: the moulds are clearly depicted, and it is certain, therefore, that bench-moulded bricks were being made in the Netherlands by c.1470 at latest. Moreover, the tools and methods familiar from nineteenth- and twentieth-century drawings and photographs were already in use by the late fifteenth century. It is hard to think that the Dutch situation was not paralleled in England at the time, especially in view of the connexions between English and continental brickwork at the time.

Notes and References

1. R.J. and P.E.Firman, 'Bricks with Sunken Margins', BBS Information, 31, November 1983, 3-5, in response to M.G.Reeder, 'The Size of a Brick', BBS Information, 29, February 1983, 1-3; see also M.G. Reeder, 'Bricks with Sunken Margins', supra, 12-13. Evidence is more fully presented in R.J. and P.E.Firman, 'A Geological Approach to the Study of Medieval Bricks', Mercian Geologist, 2, 3, 1967, 299-318.
2. B.M.Add.MS 38122 f.78^V; reproduced in N.Lloyd, A History of English Brickwork..., London, 1925, re-issued Woodbridge, Suffolk, 1983, p.390; L.F.Salzman, Building in England down to 1540: a Documentary History, 2nd ed., Oxford, 1967, pl.12a; J.A.Wight, Brick Building in England from the Middle Ages to 1550, London, 1972, pl.1; J.H. Harvey, Mediaeval Craftsmen, London, 1975, pl.40, where it is dated to c.1400; J.Woodforde, Bricks to Build a House, London, 1976, p.58.
3. Wight, op.cit., p.42.
4. Austrian National Library, Vienna, Cod.2771 f.49^V; reproduced in P.E. van Reijen, Middeleeuwse Kastelen in Nederland, Haarlem, 1979, p.148.
5. H.Halbertsma, 'Een middeleeuwse steenoven bij Deersum, Friesland', Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek, 12-13, 1962-3, 326-35; L.M.J. de Keyser, 'Middeleeuwse steenoven in 't Goy', Spiegel Historiae, 8, 1973, 45-50. The fourteenth-century tile kiln at Boston, England was somewhat similar: P.Mayes, 'A Medieval Tile Kiln at Boston, Lincolnshire', Journal of the British Archaeological Association, 3rd series, 28, 1965, 86-106.
6. Cf., e.g., John Leland: 'Most part of the brik that the waulles and houses of Kinston [sc. Hull] wer buildid was made without the south side of the toun...': L.T.Smith, The Itinerary of John Leland in or about the Years 1535-1543, 5 vols., London, 1909, re-issued London, 1964, vol.1, p.50.