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BRITISH BRICK SOCIETY

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British Brick Society web site:

http://britishbricksoc.co.uk

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Dragon of unknown provenance, for sale in Cox's Architectural Salvage Yard, Moreton-in-Marsh, Gloucestershire, before 2009

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When I was a schoolboy in the 1950s and early 1960s and even Moon landings lay in the future, the idea of a human colony on Mars was the stuff of science fiction: Dan Dare in the *Eagle* comic and on Radio Luxembourg and 'Journey into Space' on the BBC Light Programme. But an uncredited article, 'A New Era', *Science Illustrated,* **5,** 1, January/February 2012, pp.26-33, insists that 'the dream of colonizing Mars remains strong, and as space operations gradually become less expensive [*sic*], the emergence of a real colony is not impossible' (p.31). The article outlines problems and possible solutions, including 'terraforming', that is 'changing the temperature and atmosphere of a planet ... to enable humans to live unconstrained on its surface' (p.32). (On terraforming Mars see also Anon., 'Transforming a Planet: Someplace like Home' in C. Johns, ed., *Exploring Space: Journeys to the Edge of the Universe,* Washington DC: National Geographic Society, 2012, pp.106-9.)

But what has this to do with the British Brick Society? Well, at pp.26-7 of the *Science Illustrated* article is an illustration of a gloved hand holding a red brick and, at p.30, another showing a very terrestrial-looking brick wall being built on the Red Planet. Is *that* science fiction? The article suggests not. The costs of transporting building materials from Earth would be prohibitive but perhaps, we are told, not necessary: 'In the 1980s, scientists realized that it would ... be quite easy to manufacture bricks on Mars'. Unfortunately, we are not told *which* 'scientists', nor how many of them. Just *two* are enough to justify the plural, as with the advertisers' 'Dentists recommend'; and, of course, there are 'scientists' — *some* with only a first degree from an undistinguished university and/or with itchy palms and/or with a specific agenda — who deny the harmful effects of tobacco, dispute climate change, and even claim that dinosaurs co-existed with humans when the universe was created a mere 6,000 years ago!

An engineer, Bruce Mackenzie of the Mars Homestead Project (a private institution which asks for donations on the internet), is cited as claiming that 'the best material for building the first city on Mars is brick, which can be made by simply taking some surface dust, adding water, and then squeezing, drying and baking it. It is also possible to produce mortar and cement, so the first buildings on Mars could very well be neat redbrick houses' (p.32). The illustrations in the National Geographic Society publication, incidentally, show geodesic domes and hi-tech-style towers, but no *brick* buildings, which seems more plausible — though perhaps in the future even *they* may be long superseded: one may recall those inter-war futurist illustrations of Modernist skyscrapers surrounded by propeller-powered biplanes!

The *Science Illustrated* article makes intriguing reading. How plausible it is — or how cranky — I am not qualified to judge, although this article in a 'popular' magazine (which, be it remembered, is not *New Scientist* or *Scientific American,* let alone *Nature* or its US equivalent *Science*) does seem to make light of the difficulties of terraforming an inhospitable planet, which has neither air nor fertile soil and has a mean surface temperature of -65°C (-85°F). Admittedly, *one* former perceived difficulty has been shown to be unfounded. A paper in *Science,* published on 26 September 2013 and reported in *The Guardian* the following day, records that NASA's Curiosity rover has revealed that a cubic foot of Martian soil has (in places at least) some two pints of liquid water. Though 'bound to other minerals' and thus 'not freely accessible', it is, the *Science* paper's principal author insists, 'easy to get at'. For all that, the project of terraforming will not be an easy one. It is worth pondering Prof. Michio Kaku's assessment of the possibilities and difficulties in *Physics of the Future* (London: Allen Lane, 2011), pp.269-73.

Potential problems were also highlighted in an unsigned article, 'Going to Mars', *The Week,* **934,** 24 August 2013, p.13. The surface dust proposed for brickmaking 'contains highly chlorinated salts ... that can cause respiratory problems and thyroid damage' — and, one may add, lung and other cancers. Then there are the physical problems caused by prolonged periods of weightlessness experienced by astronauts venturing well short of Mars and the psychological traumas of the six men who took part in a mere 520-day Mars mission simulation in Russia in 2011-12. These, and some other difficulties, were considered towards the end of 'The Horizon Guide to Mars', BBC4 television, 3 October 2013, and in 'Horizon: Man on Mars', BBC2 television, 10 February 2014, summarized in

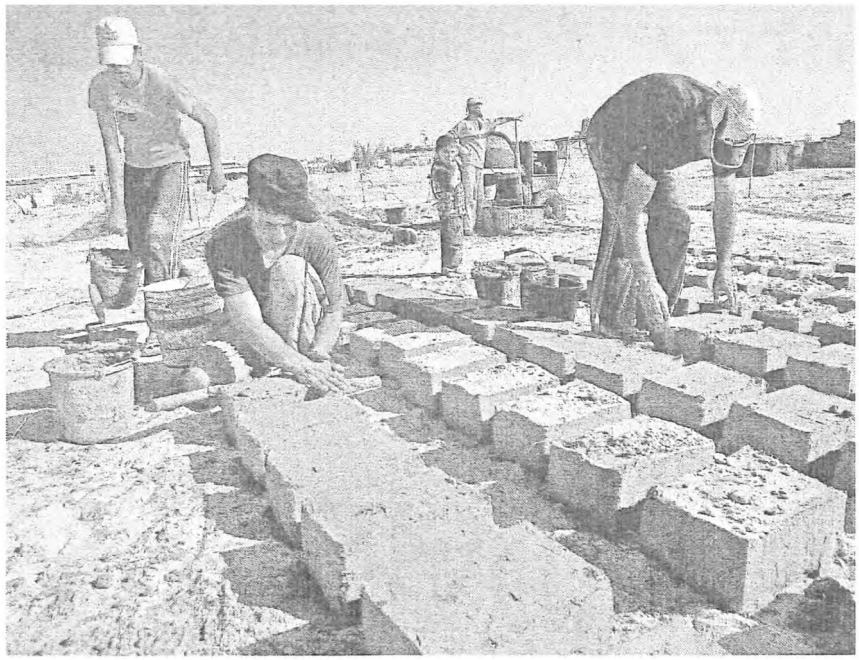

Fig.1 Sun-dried bricks being made in Gaza in 2013.

The Guardian the following day. A fuller consideration of the problems — technical, economic, physical, and psychological — is H. Lewis 'Death on Mars', *New Statesman,* 21-27 February 2014, pp.18-23; yet others — notably the development of skin cancer due to the lack of a 'magnetosphere' to shield from solar and cosmic radiation — are outlined in a panel engagingly titled 'Mars Ain't the Kind of Place to Raise Your Kids' within S. Anderson, 'Mars Needs Brokers', *Newsweek,* 16 May 2014, p.39. For a personal account of the physical problems see C. Hadfield, *An Astronaut's Guide to Life on Earth,* London etc.: Macmillan, 2013, pp.207-8; on Radio 4's 'Start the Week' 28 October 2013, Chris Hadfield insisted that it is currently impossible for humans to travel to Mars. Also, as *The Week* article notes, 'there's a chance, however slim, that Mars harbours potentially virulent microbes'. And, one may add, how will benign terrestrial microbes behave when carried to the very different Martian environment? The Red Planet may not be a *rosy* planet. And there may be more to fear than little green men with ray guns!

Nor is it explained how the bricks could be fired, coal and wood being unavailable. Solar energy seems unlikely on a planet with a mean distance from the Sun of 141.6 million miles (227.9 million km) as opposed to Earth's 92.9 million miles (149.5 million km), whilst that same distance will also debar one practice found on some parts of Earth — the making of *sun-dried* bricks (fig.1), a method dating back at least 10,000 years (J. Woodforde, *Bricks to Build a House,* London: Routledge and Kegan Paul, 1976, pp.19-28, 32-3, 303-4). There are various possibilities: nuclear power (preferably *fusion* rather than the hazardous *fission*); use of hydrogen from the planet's ice and/or liquid water (which would also release valuable oxygen); or exploitation of its methane — if it exists in viable amounts: Curiosity 'has failed to detect any significant quantity', in contrast with previous investigations, but has possibly 'looked in the wrong place at the wrong time': Anon., 'Curiosity Serves Up a Martian Mystery', *Astronomy Now,* November 2013, p.9. And there may be other possibilities. But we ought to be *told.* So too we should be informed about the production of mortar and/or cement: presumably it would exploit the planet's gypsum — calcium sulphate dehydrate (see, e.g., B. Cox and A. Cohen, *Wonders of the Solar System,* London: HarperCollins, 2010, p.223).

It is all very speculative. There is, indeed, a whole industry (some would say 'science') of *futurology,* extrapolating from the present to the future, as some once did when assuming that flying machines could be created only by using flapping wings. As this example shows, the exercise is precarious. For cautions regarding such prognostications it is worth contemplating A.C. Grayling,

Ideas that Matter: a Personal Guide for the 21st Century, London: Weidenfeld and Nicolson, 2009, pp.159-60 and Kaku, 2011, pp.7-8, 12-16 — though the bulk of the latter's text is not lacking in confident, and to my mind often hellish, predictions. ('Difficult do you call it, Sir?' Dr Samuel Johnson once thundered: 'I wish it were impossible.')

And could bricks really be 'simply' made from Mars dust — that *perilous* dust — and water? If so, it lies far ahead, by which time our descendants may have learned — perhaps by studying spiders' webs or by developing carbon nanotubes — to produce light-weight, high-strength materials capable of being carried to Mars; or, possibly, to exploit the silica, so abundant beneath that red dust, to make materials currently unimaginable, as polythene and teflon once were — or, for that matter, as iron was in the Neolithic: in which case, bricks will not be needed at all, unless, perhaps, nostalgia for home should lead future colonists, after their drawn-out journeys, to hanker after a 'beautiful house made of rosy brick, [and if conditions permit,] with geraniums in the windows and doves on the roof', in the words of the delightful children's story involving space travel by Antoine de Saint-Exupéry, *The Little Prince* (*Le Petit Prince,* trans. K. Woods), reissued London: Egmont, 2012, p.16.

A more promising approach to future brickmaking, terrestrial or Martian, was mentioned in *The Times' Eureka* magazine, **32,** May 2012, p.21. John Forth and Salah Zoorab of Leeds University have developed a method of making bricks by combining recovered aggregates such as furnace ash or incinerated sewage with vegetable oil, and with no water required. If humans (and animals?) do, in the future, inhabit Mars, sewage will obviously be available for use in brickmaking, suggesting a familiar, if indelicate, expression which *The Chambers Dictionary,* 11th edition, 2008, defines as 'to be very anxious or frightened'. Presumably, too, vegetables will be grown (if that toxic dust is able to be modified) and their oil therefore to hand. The mixture, we are told, requires heating only to 175°C (347°F), as opposed to 1000°C (1832°F) or more for clay bricks. Forth and Zoorab have now formed a company, Eucos, and mass production of Eucobricks and brick slips for cladding (Eucoslips) is envisaged — here on Earth, of course.

But will the nature of the Red Planet make all this impossible anyway — what we may call a *Mars Bar*? Some are *confident,* to the extent that the Dutch group MarsOne plans, as reported in *The Independent* on 10 September 2013, to send four volunteers on a necessarily *one-way* journey to the planet in 2028, where, according to an 'artist's rendition' (AFP/GETTY IMAGES), they will live for the rest of their lives in individual capsules, a bit like a secular version of a Carthusian monastery. One MarsOne volunteer, a German named Stephen Gunther, was interviewed on Radio 4's 'PM' programme on 3 December 2013, and sounded remarkably sanguine — a confidence worthy of the fourteenth-century anchoress Julian of Norwich: 'all shalle be wele, and alle shalle be wele, and alle maner of thynge shalle be wele'. More realistically perhaps, a report in *The Guardian* on 10 December 2013 mentioned a possible joint (one-way?) Chinese-US-UK manned mission to Mars 30 years hence, that is in the early 2040s. Either way, it will be a small beginning. Full colonisation, if it happens at all, will do so only in the long run — and as John Maynard Keynes once mordantly observed, '*In the long run* we are all dead', which grave circumstance will at least spare my blushes should my doubts prove unfounded, as perhaps they may be: after all, as the George and Ira Gershwin song has it: 'They all laughed at Wilbur and his brother / When they said that man could fly'. (*Cf.* Bob Newhart's entertaining monologue 'Merchandising the Wright Brothers', available on *'Something like this ...': the Bob Newhart Anthology,* CD, Warner Bros, 2001, disc 1 track 3.) So perhaps there will be no *Mars Bar.* But at least a billion and more years hence there will still be a *Milky Way*!

The *New Statesman* article was given me by André Beeson. The *Eureka* and *Guardian* articles were provided by David Kennett, and I should like to thank him both for that and for his invitation to contribute this Guest Editorial. As on a previous occasion, the actual editorial slog has been David's own.

TERENCE PAUL SMITH
Luton, May 2014

Obituary:
Lyndon Cave DipArch, MPhil, FSA

Fig.1 A drawing by G. Poole, made *circa* 1830, of the west front of Middleton Hall, Warwickshire. The eight bays on the left were built by Francis Willoughby, the first Baron Middleton, who inherited the estate in 1688 and was raised to the peerage in 1712. The three wider bays on the right were added at the end of the eighteenth century. Lyndon Cave was amongst those who ensured the survival of this multi-period house.

Lyndon Fraser Cave-Browne-Cave, who died on 12 May 2014 aged 90, was one of the longest-standing members of the British Brick Society, joining soon after the society's formation in 1973. Born in Cheltenham, Lyndon was the second son of Courtney Priestley Edwards Cave-Browne-Cave, and his wife, Helen Freda, *née* Cable. From a family with deep associations with Warwickshire, in 1954 Lyndon settled in Leamington Spa, where he was an architect in private practice, having trained at the School of Architecture of the University of Liverpool. For sixty years, Lyndon lived in one of the town's very fine Regency houses. His professional work largely centred on the restoration, preservation, and protection of all types of buildings and the saving of old buildings from premature demolition.

Lyndon was heavily involved in national and local preservation societies, including one which secured the successful restoration of Middleton Hall, the north Warwickshire home of two seventeenth-century naturalists, Francis Willoughby and John Ray. Reconstructed in their time is a timber-framed wing surviving with its fourteenth-century roof from a much earlier house although the most noted aspect of this multi-period site is now a substantial, eight-bay, early-eighteenth-century brick house.

Lyndon wrote three books, all of which were well received: *Warwickshire Villages,* London: Robert Hale, 1978; *The Smaller English House: Its History and Development,* London: Robert Hale, 1981; and *Royal Leamington Spa:Its History and Development,* Chichester: Phillimore &Co Ltd, 1988. Chapter eight of *The Smaller English House* admirably surveys 'The Spread of Brick' (pages 102-116) and chapter nine 'More About Bricks, Tiles and Chimneys' (pages 117-129). Like the other materials considered — earth, thatch, timber-framing, stone, and flint, cobble and pebble — the chapter on brick has a useful map of the 'Main districts where traditional brick houses and cottages

still predominate' (fig.16 on page 111), and that on tiles a map of 'Districts where pantiles and plain tiles were traditionally used' (fig.18 on page 123). These two chapters are a good introduction to the society's material.

His books on Warwickshire and Leamington Spa likewise are valuable. The latter was of considerable value to the writer when preparing notes about the town for the recent British Brick Society visit.

Lyndon spent his latter years accumulating material for a major work on brickmaking in Warwickshire with a gazetteer of brickyard sites. The writer is well aware that he was close to finishing his research and that he wished to use his final years in completing the manuscript on his well-used and trustworthy Amstrad. It is hoped that his researches will be published.

DAVID H. KENNETT

We also regret to report the recent deaths of two other long-standing members of the British Brick Society: Peter Earwaker, who in recent years lived in France, and John Helsdon of Bath.

For many years, Peter Earwaker who died in late 2013 had been the British Brick Society's only member in France, where he had moved to over twenty years before. He contributed 'A Brickmaking Family in Southern England and Canada' to *British Brick Society Information,* **116,** April 2011, and often corresponded with other society members.

A man of many parts, John Helsdon had been a member of the British Brick Society for over twenty years and had built up a large brick collection: in the register of members' interests he listed 'brickmarks' as his especial concern. Aged 84 at his death on 9 June 2014, he was an active member of Rushhill United Reformed Church in Bath, the city where he had lived since 1943. His other activities included giving talks on transport matters and on the folk traditions of the British Isles. Until quite recently he was an active Morris dancer.

DHK

Appointment of a Deputy Lieutenant of Essex

It was announced towards the end of 2013 that Mr Adrian Corder-Birch of Halstead has been appointed as a Deputy Lieutenant of Essex. The appointment was made by the The Lord Petre, Her Majesty's Lord Lieutenant of Essex, following leave given by H.M. the Queen.

Adrian has been a member of the British brick Society snce 1978 and its Honorary Auditor since 1989. He is the author of two books on brickmaking in north-west Essex: *Our Ancestors Were Brickmakers And Potters:A History of the Corder and related families in the clayworking industries,* Halstead: Corder-Birch, 2010, and *Bricks, Buildings and Transport: A History of Mark Gentry, the Headingham red brick industry, buildings, road and rail transport,* Halstead: Corder-Birch, 2013. He is a life member of the British Archaeological Association and of its Brick Section. He is also a member of the Association for Industrial Archaeology and Vice-Chairman of the newly-formed Essex Industrial Archaeology Group. His other interests include genealogy and local history. He is a Past President of Essex Archaeological and Historical Congress and currently Chairman of the Editorial Board of *Essex Journal.*

Following 36 years in the legal profession he is now clerk to two Parish Councils and an almshouse charity on Essex.

ADRIAN CORDER-BIRCH

Drayton Lodge: a Fifteenth-Century Hunting Lodge near Norwich

Terence Paul Smith

INTRODUCTION

The decayed ruins of Drayton Lodge (fig. 1) stand in the grounds of a nurses' hostel immediately south-west of the main Norwich to Fakenham road (the A1067), some 4 miles (6.4 km) north-west of the city centre and within the parish of Drayton (NGR: TG/187132). The building is set on a hilltop overlooking the valley of the River Wensum to the south-west. Until about the end of the eighteenth century the area was open heathland,[1] but in more recent times trees have encroached, even within the building itself, whilst the area is becoming increasingly built-up.

The building was studied in the mid-nineteenth century by Henry Harrod,[2] whose published plan has been brought up-to-date and, to some extent, rectified (fig. 2). Harrod was at pains to combat the then prevalent idea that the building 'was a thing of [but] yesterday — a modern antique'. This view that the building is an eighteenth-century folly still had be countered by H.D. Barnes as late as 1946.[3] Sir Nikolaus Pevsner in 1962 came closer to the truth when he described it as 'Probably a plaisance of the C16 connected with a house of the Pastons at Drayton',[4] a statement partly repeated in the longer entry in the revised edition by of the relevant volume of the *Buildings of England* series:

> A ruinous oblong structure of pinky yellow brick with four round corner towers, reduced to one storey. The brick is in English bond, with various later patchings. In the S[outh] wall is a four-centred arch under three internally splayed slits. Remains of a fireplace inside. Probably a plaisance of the early C15 connected with a house of the Pastons at Drayton, or with Sir John Fastolph. Fastolph held the manor of Drayton and it is interesting to note the similarities between the bricks here and at Caister Castle. Some seem to be from the same kiln.[5]

In her study of pre-Reformation English brickwork, Jane Wight accepted without question Harrod's and Barnes' contention that it is the fifteenth-century lodge built at Drayton by Sir John Fastolf and referred to in the Paston letters.[6]

Hunting lodges of medieval date do not survive in great numbers and this building is worthy of greater attention than it has so far received, the more so since it is an early example of brick used as a material in its own right. It is in an apparently dangerous state although it is worth observing that it survived the hurricane of October 1987 — which was intense throughout Norfolk and Suffolk[7] — unscathed. It is scheduled as an Ancient Monument with all that (or as little as) that means for its future preservation.

DESCRIPTION

The building is rectangular in plan, 22 ft 6 in (6.9 m) east-west by 16 ft 3 in (5.0 m) north-south internally, with a three-quarter round turret at each angle (fig. 2).[8] The principal walls are 2 ft 8 in (0.8 m) thick except that to the west side which is 3 ft 9 in (1.1 m) thick; the turret walls vary in thickness between 1 ft 3 in (0.4 m) and 1 ft 8 in (0.5 m). The internal diameters of the turrets differ and the north-west turret is somewhat smaller than the other three both internally and externally. In the late 1980s, the main walls stood to a height of some 20 ft (6 m), representing two storeys; three of the turrets then stood, in part at least, to about the same height, but the north-east turret now stands only to the level of the first floor.

The building is badly mutilated. The south-west and north-east turrets have large breaches in them, as do the two fireplaces; most apertures have their details missing; and the internal brickwork is badly damaged. Since Harrod drew his plan in the mid-nineteenth century, the internal angle shutting off the north-west (garderobe) turret at ground-floor level has either fallen or been knocked away, and a brick pier has been added to support the structure north of the ground-floor fireplace in the west

wall.

The structure is of orange/pink bricks which, however, take on a yellowish hue when seen from a distance, especially from the north. This effect, which is probably due to the thick joints in yellow mortar, has led some previous writers to describe the bricks as yellow gaults.[9] The bricks measure 10-10¼ × 4¾ × 2¼ inches (254-260 × 120 × 57 mm) and four courses measure 11¾ in (298 mm). The bricks are laid in a very consistent English Bond, and the walls are of solid brickwork without flint or other stone cores;[10] broken bricks are, however, included internally, as normal in medieval brickwork. Where openings and other features survive they are all of brickwork and there appear to have been no stone dressings used throughout the structure. A few flints and a few red bricks are used here and there in the walls. There are no traces of diaper patterning to the brickwork. The base of the walls is, at most points, patched in smaller dark red bricks, measuring 9-9¼ × 4-4¼ × 1¾ inches (229-235 × 102-108 × 44 mm), laid in a fairly irregular English Garden Wall Bond with four courses measuring 9¼ in (235 mm). The 'squared flints chequerwise' referred to by A.B. Whittingham[11] are in fact knapped flints fairly randomly included in the dark red brickwork, certainly not making up a chequer pattern. The inserted pier supporting the primary work north of the ground-floor fireplace is of red machine-made bricks measuring 8½ × 4¼ × 2½ in (216 × 108 × 63 mm) laid in English Bond with knapped flints used in place of closers or to take up the few irregularities; four courses measure 12¼ in (311 mm).

The only original entrance is a four-centred archway of brick east of centre in the south wall. The arch-head has a number of its bricks cut to shape to form rough voussoirs. The jambs are badly damaged, but midway in the west jamb is an 8-inch (200-mm) square hole for the draw-bar for the former door; this hole penetrates to the window embrasure further westwards, enabling the draw-bar to be withdrawn into the embrasure. The window itself is 2 ft 9 in (0.8 m) wide on the exterior but is widely splayed to 4 ft (1.2 m) internally. Its head is damaged. About midway in the wall's length, and just below first-floor level, is an 11-inch (28-cm) square hole, matched by another exactly opposite in the north wall, and presumably connected with a timber partition dividing the ground-floor space into two approximately equal portions.

Some joist holes for the first floor remain, although the brickwork is too seriously damaged to preserve many traces of these. At first-floor level are three windows of brick. The central one is badly damaged; the other two are narrow and of a single light with deeply splayed reveals internally. The heads are formed vault-fashion from stretchers and are also markedly splayed.

The west wall is almost entirely taken up by the remains of a large fireplace, which is fully 8 ft (2.4 m) wide. It was originally arched in brick although only the springers remain. The back has been knocked through, and a relatively recent reinforcing-bar now supports the brickwork of the flue above. The flue narrows markedly and there is no fireplace at first-floor level at this end. The flue, whose internal wall is no longer extant, preserves much of its plaster and shows some soot-marks. At first-floor level, to the north of the flue, is a small window with square jambs. Its head is of stretchers in the form of a vault, but much flatter than those of the south wall. Externally there is a straight-arch of bricks on edge; jambs and sill are of squinchons (bricks with one angle cut off at approximately 45°).

The north wall has one window at ground-floor level, east of centre. it is 1 ft (0.4 m) wide on the exterior, splayed to 3 ft (0.9 m) internally. The jambs are of squinchons. There is a shallow segmental arch-head and a splayed vault of stretchers. To the west of this a further hole is probably the result of damage rather than the remains of another window. As mentioned, about midway and just below first-floor level there is a square hole corresponding to that on the south wall. At first-floor level are the remains of one largish window towards the west end. It has jambs of squinchons, a shallow segmental head, and splayed reveals.

The east wall has a breach at ground-floor level; there was certainly room for a window, but if Harrod's plan, which shows the breach much narrower, is accurate then there was not a window here. At first-floor level are the remains of a fireplace, smaller than that at ground-floor level in the opposite wall. The back has been completely knocked through. The flue narrows sharply and still retains much of its plaster. Its arch has collapsed, and there are slightly projecting portions of brickwork at the level of its spingings, suggesting some form of brick hood over the fireplace.

The south-east turret was entered by a simple doorway at ground-floor level. Here there is one splayed window of brick facing eastwards. Joist holes survive for the first floor, where the turret was

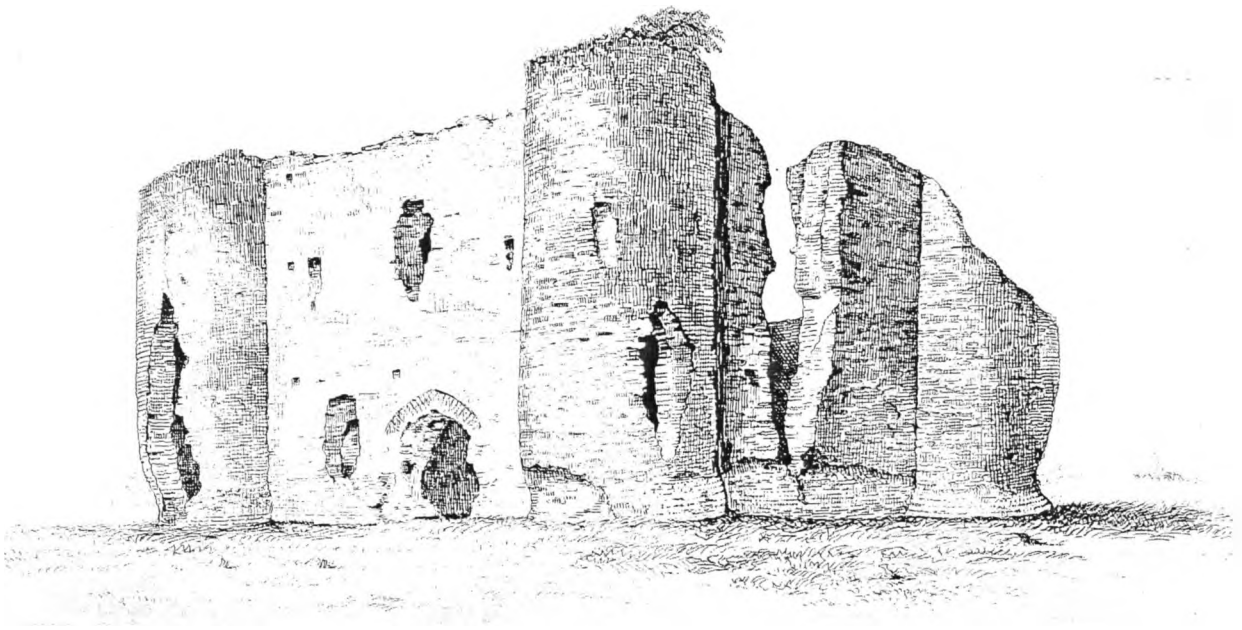

Fig. 1 Drayton Lodge, Norfolk, in 1848, showing, from left to right, the south-west (staircase) turret, the south wall, with entrance, the south-east turret, the east wall, and the north-east turret.

entered by a slightly more elaborate doorway, its chamfered jambs formed of squinchons. At this level there are three splayed windows of brick. At the top of this level is a shallow domical vault formed from concentric rings of headers — that is bricks set on-end. The arch heads of the doorways at both levels are not extant.

The south-west turret was entered at ground-floor level by a simple doorway with rebated jambs and an arch whose spingings still remain. At first-floor level there is a further entry and, apparently, a small vestibule. At ground floor level the north-west portion is occupied by a solid block of brickwork. Harrod referred to 'the spingings of arches' in this turret, 'evidently of a depressed [?segmental] form',[12] although only that of the ground floor entry is now apparent.

The north-west turret is now open to the main space at ground-floor level but formerly it was not so. Harrod's plan shows the right-angle that was formerly here, cutting off the turret. Clearly this was a garderobe turret. The joist holes for the first floor remain, as do the housings for the wooden seat at this level. At first-floor level there are two-splayed windows or vents of brick. Against the north jamb of the first-floor doorway are two holes presumably once holding the hinge-pintles of the door. A rebate on the inner half of the western jamb indicates that the door opened into the main space, *not* into the turret, where indeed, there would not have been room for it. A half-brick-width partition wall ran across the turret to a point just below first-floor level; this has fallen but its scars are visible. Behind this was the chute of the upper garderobe. There is no apparent opening at the foot of the garderobe.

The north-east turret also had a simple entrance — its arch-head now fallen — at ground-floor level. One side of a window survives, its construction similar to those in the south-east turret. The inner half of the turret was covered by a shallow segmental vault of parallel stretchers (with a few headers included), which is now partly fallen; the outer half is covered by a half-domical vault of headers which abuts the vertical section of the brickwork which terminates the shallow inner vault. Above this there is a considerable thickness of brickwork, although the first-floor walling of the turret is missing.

INTERPRETATION

The building was clearly of towerhouse form, although on a much smaller scale than the majestic towerhouse at Tattershall, Lincs., (*c.*1432 *et seq.*),[13] which is a near contemporary. Although only two storeys survive (in part), the garderobe turret provides firm evidence for a third storey: the partition across the turret separated off a second chute designed to be used from second-floor level.

All levels would have been reached by a staircase, which Harrod supposed to be in the south-west turret.[14] This is almost certainly correct. The lump of brickwork at the foot of the turret presumably supported the lowest portion of the stair; or perhaps the stair at this level was actually constructed of brick. Either way, a clockwise rise is indicated. The apparent vestibule at first-floor level would have formed a landing for the stair. But there is no indication of either a brick or stone staircase, and it must be conjectured that the staircase was of wood. These is no handhold, but such as not an invariable accompaniment of newel-staircases in fifteenth-century brick buildings.

Of the floors served by this staircase, that on the ground floor probably served in part as the kitchen, as in the earlier, though similarly planned, if larger, towerhouse at Nunney Castle, Somerset (*c.* 1373 *sqq.*),[15] Certainly the fireplace at this level is of large size, involving an extra thickness to the west wall in which it is set. At this level the building was presumably divided by a timber-framed partition partly housed in the square holes in the north and south walls. The western (kitchen) chamber was lighted by a quite large window in the south wall; the eastern chamber was lighted by a much smaller window in the north wall. In was into this latter chamber that the entrance opened. The draw-bar seems to have been operated from the southern window recess, and it would thus have been convenient to have the partition doorway at the southern end. This would also be more convenient for providing access to the stair in the south-west turret; and indeed it is likely that there was a further partition, running east-west and forming a passage from the main entrance. The eastern chamber probably formed the buttery and pantry (possibly with a further partition east-west) adjacent to the kitchen. Water would have been difficult to obtain on this hilltop site, and it possible that one of the western turrets contained a well. Perhaps this was in the south-east turret, with the heavily vaulted north-east turret being used as a 'cellar' or 'cool room' for the storage of dairy produce and the like.

The first floor was certainly more domestic than the ground floor and was probably the principal chamber or 'hall': there is the convenience of a garderobe, whilst the fireplace was on a less utilitarian scale and was apparently provided with a brick hood or over-mantle. It was also much better lighted, with three windows on the southern side and (prudently!) one on the northern side. The garderobe could be shut off by a door hung from the northern jamb and opening into the main space. The south-east turret at this level possesses several marks of distinction: its jambs were given, albeit in simple fashion, special treatment by the use of squinchons; it contains no fewer than three windows; and it is topped by a carefully constructed domical vault. It is possible that this turret-chamber served as a small oratory, like that (on a larger scale) in the south-west turret of Nunney.[16] The heavy vaulting of the north-east turret is puzzling, unless its sole purpose was to provide insulation for a 'cool room' at ground-floor level. One possibility is that there was a further staircase in the turret at this level — a more private staircase, perhaps, than that leading up from the kitchen. There is no positive evidence to show whether at this level there was a single chamber or two (or more) chambers divided by timber-framed partitions, although the presence of only one fireplace, as well as the quite small size of this principal chamber, make the former possibility more likely.

Since nothing remains of it, it is difficult, of course, to be clear about the nature of the second floor. Certainly there was a garderobe, sharing the north-west turret with the first-floor garderobe. There was no fireplace in either end wall, although it possible that there was one in one of the side walls. If the first floor formed the principal, or 'hall', chamber, then it is possible that this upper floor served as a bed chamber or a set of bedchambers with timber partitions. In view of the wall-thicknesses it is unlikely that there was a further storey above the third floor.

Barnes suggested a flat roof.[17] This is unlikely. At the very least a shallow pitched roof would have been provided, and it is even possible that the end walls were carried up as full gables, as at Nunney Castle and some of its continental analogues.[18] The turrets may or may not have been finished with conical roofs.

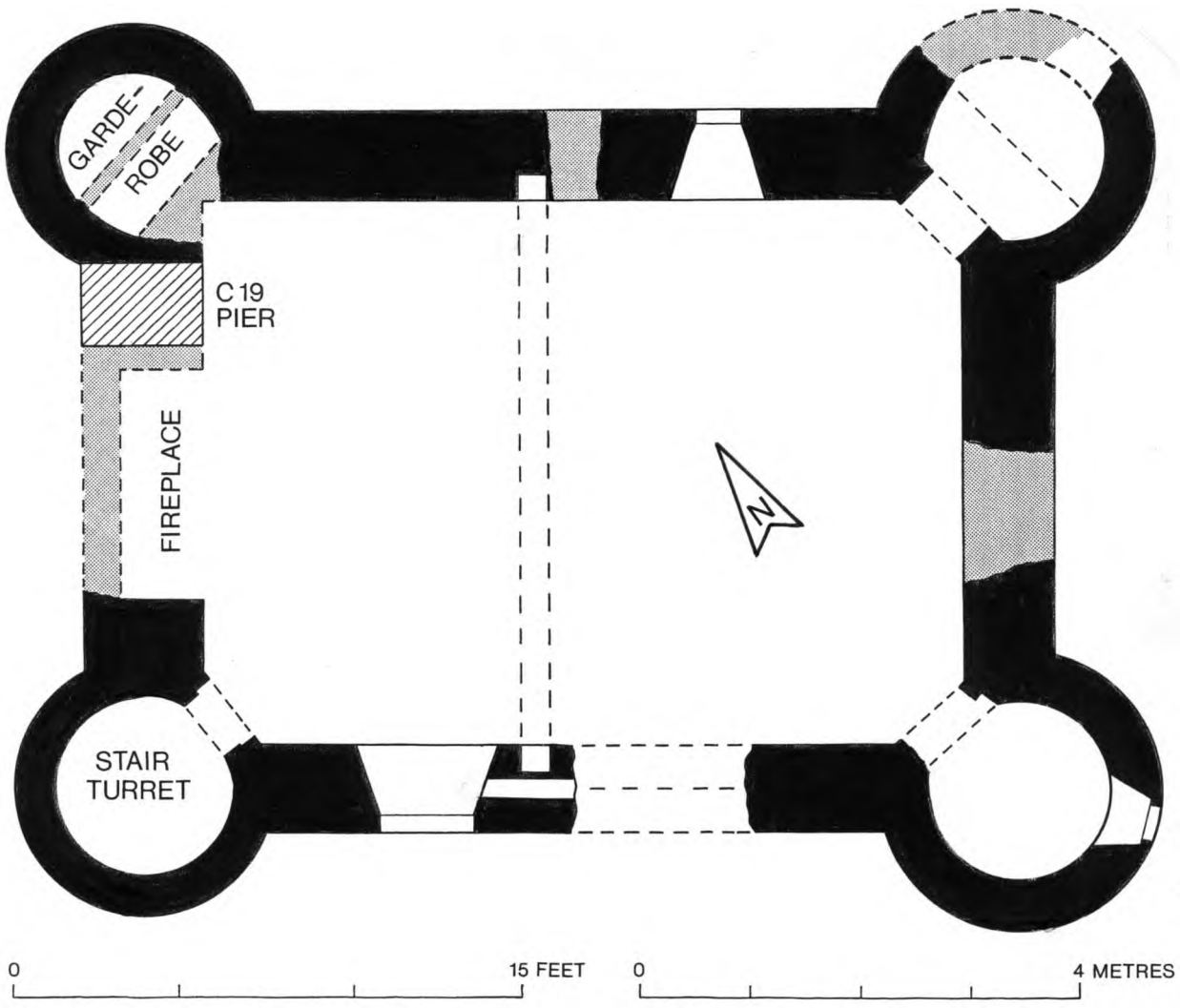

Fig.2 Plan of Drayton Lodge, Norfolk.

Internally, there is enough plaster still adhering to the brickwork to indicate that all walls, including those within the turrets, were plastered.

The absence of an aperture at ground level in the garderobe turret, like that at Someries Castle, Beds., (*c.* 1448 *sqq.*)[19] is slightly perplexing, but probably there was one below ground level in a specially constructed, and perhaps brick-lined, pit, as at Fastolf's Caister Castle[20] and at Kirby Muxloe Castle, Leics. (1480-84, unfinished).[21] Limited archaeological excavation could probably settle this point.

DATING AND HISTORICAL CONSIDERATIONS

It now seems scarcely credible that both in Henry Harrod's time and, a century later, when H.D. Barnes was discussing the building, it could be seriously maintained that Drayton Lodge was an eighteenth-century folly. Both writers — with Barnes calling on the expertise of A.B. Whittingham and W. Douglas Simpson — argued against this supposition.[22] It is not necessary to rehearse their arguments here, though it is perhaps worth adding one consideration not raised by them. Because of the more complete state of the north-west angle in his day, Harrod did not notice that the turret here contains a double-chute garderobe. Neither Barnes nor Whittingham noted the fact, although it was certainly visible in the 1940s, as one of Barnes' photographs shows,[23] and so the information was not passed on to Simpson (who did not see the building for himself). The garderobe is of distinctly

medieval type and is hardly what would have been included in an eighteenth-century folly! In any case, the building is quite clearly of late medieval date, as Simpson in particular emphasised.

Barnes was rather dismissive of Harrod's comparison with Caister Castle, although accepting that Drayton Lodge was Fastolf's work.[24] There are obvious differences between Caister and Drayton; nevertheless, there *is* a likeness between the circular turrets rising sheer, with no offsets, at Drayton and the great west tower at Caister. The bricks, though different in size, are not so different in colour. And at both buildings there is an absence of diaper patterns and the English Bond is well and consistently done.[25]

It is known from documentary sources that Fastolf built a lodge on his property at Drayton at about the same time that he was building his manorhouse, and a further lodge, at his adjoining manor of Hellesdon as well as his castle at West Caister. The manor of Caister had been gifted to Fastolf by his mother as early as October 1404, but it was not until the beginning of 1433, specifically on the Feast of the Epiphany (6 January), that he began the building of the brick castle there.[26] Seven months earlier, specifically on 12 June 1432, he acquired the manors of Hellesdon and Drayton.[27] Building at Hellesdon went hand-in-hand with that at Caister, and both were supplied with bricks from the same source.[28] In a document written in 1466 by Fastolf's former secretary, William Worcestre, the house and 'lodge' at Hellesdon are linked with a 'lodge' at Drayton, the total cost of all three buildings being given:

> Et edifficacio manerii de Haylysdon cum clausura bosci et warenne ac edifficacione duarum domorum vocatarum *les logges* apud Haylysdon et Drayton.
>
> v^{c}xlviij^{li} xiij^{s} iiij^{d}
>
> [And the building of the manor of Hellesdon with a wooded close and a warren, together with the building of two houses called 'the lodges' at Hellesdon and Drayton
>
> £548 13*s.* 4*d.*][29]

The buildings at both places 'were probably completed by 1437 as Sir John Fastolf directed that the accounts of Hellesdon and Drayton should be searched from that year'.[30]

In view of the late medieval character of the building and of its brickwork, the existing Drayton Lodge may safely be identified with the building known to have been erected at Drayton by Sir John Fastolf contemporaneously with his projects at Caister and Hellesdon in the 1430s.

Thus it would have been the 'Drayton Lodge' that was involved, along with the house and lodge at Hellesdon, in a bitter dispute as to lordship between John de la Pole, Duke of Suffolk, and the Paston family.[31] This dispute culminated in 1465 in an armed attack on Hellesdon by Suffolk's men. On Thursday 17 October Margaret Paston wrote to her husband John that the

> logge and the remenaunte of your place [at Hellesdon] was betyn down on Tuesday and Wednesday,' and she added that 'the Duke [of Suffolk] rode on Wednysday to Drayton and so for[th] to Cossey [Costessy, immediately south over the River Wensum and one of Suffolk's manors] whille the logge at Heylesdon was in the betyng down.[32]

Harrod made a brave attempt to identify this 'logge' with the extant ruins which are the subject of this paper.[33] Earlier in 1465, on 10 May, Drayton Lodge had indeed been garrisoned with sixty men against attack: 'On Thursday al day there were kept in Drayton logge in to lx. persons ...'.[34] Yet this had come to nothing. The letter quoted makes it quite clear that, of the two lodges mentioned by William Worcestre, one at Hellesdon and one at Drayton, it was the former that was 'in the betyng down'. Indeed, it was whilst this was happening that Suffolk 'rode ... to Drayton'.

Four years later, in June 1469, King Edward IV was in the area and, according to a letter written by John Paston the Younger,

> rod[e] thorow Heylesdon Waren towads Walsyngham, and Thomas Wyngfeld promysed me that he wold fynd the menys that my lord of Glowsestyr [*viz* Richard, Duke of Gloucester, the future King Richard III] and hym sylf bothe shold shew the Kyng the loge that was breke

down, and also that they wold tell hym of the brekyng down of the plase.[35]

Commenting on this passage, Harrod writes:

> If it be asked how I can connect the Lodge referred to in the above extracts with Drayton Lodge, I would reply that the road past the ruin was the *Old Walsingham Way*; and from the city [of Norwich] to Drayton, even as late as the last [*viz* the eighteenth] century, the land on each side of the road was one continuous open heath and warren; that no other trace of a ruin is to be found elsewhere on this line of road; that the Pastons' *Place* at Hellesdon was in the valley at the foot of the hill on which the ruins stand, and could not be *seen* from this road, but would have been in full view of the King on the Lower or Hellesdon road, had he chosen to take that circuitous and unfrequented route; and on *that* road no "*Lodge*" was to be seen except this; and that the most serious damages are on the North-eastern tower and North wall, and therefore the points most clearly seen from the Walsingham road.[36]

The topographical argument, which seems to have persuaded both Gairdner and Barnes,[37] is quite satisfactory. Even (granted what we do not actually *know*) that the party travelled by the more usual route (the present A1067), there is no reason why they should not have detoured slightly to view the 'lodge', since showing the lodge to the royal party was precisely what Wingfield had 'promysed ... he wold fynd the menys' to do; Harrod apparently takes the word 'shew' to mean 'point out whilst passing' but there is no warrant for this over-rigorous reading. More important, we simply do not know whether or not the *Hellesdon* lodge was visible from the main road. That the *house* at Hellesdon was in the valley is irrelevant: the lodge would have been some way from it, perhaps indeed on the hill (the present Rabbit's Hill) above the house and close to the road — in a position, that is, similar to that of Drayton Lodge. In the absence of knowledge of the site of Hellesdon Lodge, Harrod's observation about where the damage is most clearly visible on Drayton Lodge, though correct so far as it goes (just!), is simply beside the point. Indeed the whole argument might be considered beside the point, since, as noted above, the relevant letter makes it quite clear that it was the lodge at *Hellesdon* that was attacked and damaged.

The manor, and hence the lodge, at Drayton was certainly involved in the dispute, and it is quite plausible to suppose that the lodge itself was attacked and damaged. It has, after all, lost the whole of its top storey and the breaches and other damage may be more than would be expected from natural collapse. But the references in the extant Paston Letters do not confirm such an attack and it is possible that the damage is due to partial demolition at some stage.

Whatever the truth of this matter, it is known that 'at some comparatively recent period [prior to 1849], it was patched up and made the residence of a warrener'.[38] This was probably in the eighteenth century and it is to this time that the dark red brick patching (with some flints) of the plinth belongs, rather than to the primary medieval build as Whittingham conjectured.[39] It is clear from the south-west turret that the foot of the walls had deteriorated worst of all, and it is at this level exclusively that the red brick walling occurs. It is clearly later patching to make good this fault in the structure. The employment of English Garden Wall Bond also supports a later date.

The red brick pier supporting the north wall of the western fireplace post-dates Harrod's account and manifestly belongs to the later nineteenth century.[40]

THE BUILDING IN ITS CONTEXT

The building is clearly a towerhouse of purely domestic type with no military intention whatsoever: the ground-floor entrance is wholly undefended; there are ground-floor windows (not mere loops); there is no moat or other outer defences; and the walls (especially in the turrets and at the backs of the fireplaces) are quite thin. W.D. Simpson commented that 'Tattershall probably set the fashion' for these towerhouses.[41] It is true that Tattershall seems to have had direct influence on a small group of Lincolnshire towerhouses[42] and, slightly later, on the Lincoln episcopal palace at Buckden, Hunts. (1472-1480s).[43] But there is little likeness between Tattershall and Drayton Lodge, even allowing for the meagre scale of the latter compared with the grandeur of the former: Tattershall has part-

octagonal, not circular, turrets and — more important — was never conceived as a self-contained unit but had a large hall attached. Even the use of brick is different, for Tattershall mostly employs stone dressings, as well as having stone staircases, and it is liberally provided with diaper patterns, none of which features are present at Drayton Lodge.

Despite the difference of material (stone rather than brick) and despite the larger size and definite military intent, it is Nunney Castle, of half a century or so earlier, that provides the closer likeness to Drayton Lodge: at Nunney there are curtain walls with prominent drum-towers at all four angles, and, moreover, the whole is conceived as a completely self-contained unit, with kitchen, hall, and other chambers being arranged vertically in a single scheme. It is possible to see Drayton Lodge as a scaled down and fully domesticated version of the same concept. On the other hand, Nunney itself has continental analogues (not necessarily prototypes), for example at Anjony and Vincennes in France,[44] and in view of Fastolf's long service in France during the Hundred Years War it is equally possible that his ideas were picked up there.

The location of Drayton Lodge in a large area of former hunting ground, including Hellesdon Warren, gives point to Simpson's suggestion that the building served as a hunting lodge and that its 'relation to the "Place" at Hellesdon is precisely paralleled by the "Tower on the Moor" adjoining [*sic:* it is actually some 4 miles (6.4 km) north of] Lord Cromwell's Castle at Tattershall.'[45] The Tower-on-the-Moor was a square structure of brick with a part-octagonal stair-turret (which alone survives) at one angle, comparable with the smaller towerhouses at Boston and Spalding in the same county.[46] Sometimes hunting lodges might be timber-framed structures, like that surviving at Chingford, Essex, and dating from the reign of Henry VIII.[47] In other cases they might be of stone and other towerhouse form, like that of two storeys which still exists in Thetford Warren, Norfolk, built in the mid-fifteenth century.[48] In other instances, brick was used, as at the Tower-on-the-Moor or at that mentioned by John Leland in the sixteenth century at Leconfield, Yorks.E.R.: 'Ther is a fair tour of brike for a logge yn the park.'[49] They might be humble buildings lived in by the parker or ranger but 'others were built for the owner of the park or forest when he went hunting, and had more pretensions.'[50] Drayton Lodge pretty clearly falls into the latter category, for which, it has been observed, a

> tower format was a sensible one for houses which were normally used for short periods and by a reduced household, so there is no need for large numbers of lodgings, and the roof or upper room could be useful for watching the movement of game.[51]

On its hilltop site, Drayton Lodge would be admirably suited to such a purpose. At the same time, its domestic offices and, probably, its small oratory would provide the necessary amenities for a relatively short stay, and this would be ideally suited as a 'sweeping house', providing accommodation for the lord and a diminished household during 'secret house', as it was called in the sixteenth century and usually taking place at the annual audit. At Leconfield the brick lodge already referred to was used in just such a way.[52] In all such cases, however, the function as hunting lodge was doubtless primary.

Drayton Lodge was manifestly not a military structure of any kind, and the most likely interpretation is indeed that offered by H.D. Barnes more than sixty year ago, namely that it was a hunting lodge erected in brick during the 1430s by Sir John Fastolf, builder of Caister Castle and of the nearby manor house and lodge at Hellesdon.

ACKNOWLEDGEMENTS

I thank David Kennett for on-site discussion, for inviting me to examine the building, and for additional notes and references. He and I are grateful to the Warden of the Nurses' Home at Drayton for allowing us access to the building, which stands within their grounds, in order to study it in detail.

NOTES AND REFERENCES

1. H. Harrod, 'The Ruined Lodge at Drayton', *Norfolk Archaeology,* **2,** 1849, pp.363-8, ref. at p.364; *cf* J. Campbell, *Historic Towns: Norwich,* London: Scolar Press with Historic Towns Trust 1975, pp.1-2, where it is noted that in the past the area probably carried much timber.

2. Harrod, 1849, pp.363-8.

3. H.B. Barnes, 'Drayton Lodge', *Norfolk Archaeology,* **29,** 1946, pp.228-237.

4. N. Pevsner, *The Buildings of England: North-East Norfolk and Norwich,* Harmondsworth: Penguin Books, 1962, p.122;

5. N. Pevsner and B. Wilson, *The Buildings of England: Norfolk 1: Norwich and North-East,* London: Penguin Books, 1997, p.448.

6. J.A. Wight, *Brick Building in England from the Middle Ages to 1550,* London: John Baker, 1972, p.323.

7. David Kennett has reminded me that he lost much of the glass from a greenhouse that night and that his 25-year-old, still fruiting apple tree was completely uprooted; he was then living in a village outside Great Yarmouth. Trees in many of the small woods and copses of both counties were uprooted, especially shallow-rooted ones on sandy soils.

8. For ease of description it will be supposed that north is at the top of fig. 2. This is the building's long side seen as one approaches the building from the main road (the A1067).

9. Harrod, 1949, pp. 364, 365 described the bricks as 'yellowish'; Barnes, 1946, p.235 as 'of gault'; Wight, 1972, p.323 speaks of 'yellowish gault bricks'; Pevsner, 1962, p.122 saw them as 'pinky grey'; Wilson in Pevsner and Wilson, 1997, p.448 records 'pinky yellow' as the colour.

10. Some walls at Caister Castle have stone cores; personal observation 1987; for another example of brick facing a flint core see B.S. Ayres, R. Smith and M. Tillyard, with a contribution by T.P. Smith, 'The Cow Tower, Norwich: a Detailed Sirvey and Partial Reconsideration',*Medieval Archaeology,* **32,** 1988, pp.184-207.

11. In a report included in Barnes, 1946, p.236.

12. Harrod, 1849, p. 365.

13. M.W. Thompson, *Tattershall Castle*, London: National Trust (guidebook), 1974; N. Pevsner and J. Harris, revised N. Antram, *The Buildings of England: Lincolnshire,* London: Penguin Books, 1989, pp.745-9 with pls.64-66; W.D. Simpson, *The Building Accounts of Tattershall Castle, 1434-1472,* [being *Lincoln Rec. Soc.,* **55**], reprinted Woodbridge: The Boydell Press, 2010, 'Introduction: Lord Cromwell's Castle', *ibid.,* pp.xi-xxix. For the castle's wider context see M.W. Thompson, 'The Architectural Significance of the Building Works of Ralph, Lord Cromwell (1394-1456)' in A.P. Detsicas, ed., *Collectanea Historica Essays in memory of Stuart Rigold,* Maidstone: Kent Archaeological Society, 1981, pp.155-162.

14. Harrod, 1849.

15. N. Pevsner, *The Buildings of England: North Somerset and Bristol,* Harmondsworth: Penguin Books, 1958, pp.238-9, with pl.49a; see also D.J. Cathcart King, *The Castle in England and Wales An Interpretative History,* London and New York: Routledge, 1988, pl.8.

16. Pevsner, 1958, p.239.

17. Barnes, 1946, p.235.

18. Pevsner, 1958, p.239.

19. T.P. Smith, 'Someries Castle', *Bedfordshire Archaeol. J.,* **3,** 1966, pp.35-51, ref. at p.37.

20. H.D. Barnes and W.D. Simpson, 'Caister Castle', *Antiq. J.,* **32,** 1952a, pp.35-51, ref. at p.41.

21. Anon., [? A.H. Thompson], 'Kirby Muxloe', *T. Leices. Archaeol. Soc.,* **11.** 1913-20, pp.109-164; in same

volume as A.H. Thompson, 'The Building Accounts of Kirby Muxloe Castle , 1480-1484', *ibid.*, pp.193-345.

22. Harrod, 1849, pp365-8; Barnes, 1946, pp.235-7.

23. Barnes, 1946, pl.III opp. p.232.

24. Barnes, 1946, p.234; Harrod, 1849, p.365.

25 Barnes and Simpson, 1952a, pp.40-1 describes the Caister bricks as 'pink or pale yellow for the most part' and give dimensions as ' about '8½ in. by 4¼ in. by 2 in. [216 by 108 by 51 mm], though some attain a length of as much as 9½ in. [241 mm].' The sizes are actually much more varied and many are 2¼ in. [57 mm] thick, which is indeed the measurement given in N. Lloyd, *A History of English Brickwork ...*, London: H.G. Montgomery, 1925, re-issued Woodbridge: The Antique Collectors' Club, 1983, p.86 (Table). R.J. and P.E. Firman, 'A Geological Approach to the Study of Medieval Bricks', *Mercian Geologist,* **2, no. 3,** 1967, p.367, fig. 1 note both red and yellow bricks at Caister; *ibid.,* 307, Table 1 provides a chemical analysis of sample bricks, including 'Yellow', 'Red', and 'Overburnt brick'.

26. Barnes and Simpson, 1952a, pp.35-6; also H.D. Barnes and W.D. Simpson, 'Buildings Accounts of Caister Castle, 1432-1435', *Norfolk Archaeol.,* **30,** 1952b, pp.178-188; regrettably, the authors misdate the start of the accounts which begin on the Feast of the Epiphany (6 January) 11 Henry VI; regnal year 11 Henry VI begins on 1 Sept 1432 and ends on 31 Aug 1433 as was first pointed out by A, Hawkyard, 'Sir John Fastolf's "Gret Mansion by me late edified": Caister Castle, Norfolk' in L. Clark (ed.), *The Fifteenth Century V: Of Mice and Men, Image, Belief and Regulation in Late Medieval England,* Woodbridge: Boydell & Brewer, 2005, pp.39-67, ref. at p.41 n.19.

27. Barnes, 1946, p.228.

28. Barnes and Simpson, 1952b, pp.183 and 184 note bricks supplied to Hellesdon in 1434 and 1435 respectively; see also 'Editorial', this issue of *BBS Information,. supra,* p.00.

29. Barnes, 1946, p.228, quoting Magdalen College, Oxford, Fastolf Papers 87/4; my translation.

30. Barnes, 1946, p.228.

31. The story is told Barnes, 1946, p.228-233; it is not necessary to retell it here, though specific incidents will be noted as necessary to the argument. The dispute and its background may be followed in H.S. Bennett, *The Pastons and their England,* Cambridge: Cambridge University Press, 2nd ed., 1932, pbk.1968, pp.14-18, 63-8; more recent consideration is to be found H. Castor, *Blood & Roses,* London: Faber & Faber, 2004, pp. 148, 162 and 169.

32. J. Gairdner, ed., *The Paston Letters,* London, 1904 edition, 6 vols., re-issued in one microprint edition (with original pagination), Gloucester: Alan Sutton, 1983, vol. 4, p.205 (Letter 616). N. Davis, *Paston Letters and Papers of the Fifteenth Century,* Oxford: Oxford University Press, 2 vols. 1971-6, letter 196, cited in modern English, Castor, 2004, p.169.

33. Harrod, 1849, p.366-7.

34. Gairdner, 1904/1983, vol.4, p.139 (Letter 581)..

35. Gairdner, 1904/1983. vol. 5 pp.31-2 (Letter 716).

36. Harrod, 1849, p.367; Harrod did not know of William Worcestre's statement that Hellesdon too had a lodge, though it seems clear from the Paston Letters alone that there were two separate lodges.

37. Gairdner 1904.1983, vol. 1 p.222 (Introduction); Barnes, 1946, p.233.

38. Harrod, 1849, p.368.

39. Report by A.B. Whittingham in Barnes, 1946, p.236.

40. It appears in the photograph, Barnes, 1946, pl. III, opp. p.232.

41. W.D. Simpson in Barnes, 1946, pp.236-7.

42. *Cf.* T.P. Smith, 'Hussey Tower, Boston: a Late Medieval Tower-House of Brick', *Lincs. Hist. and Archaeol.,*

14, 1979, pp.31-37; the towerhouse at Hunsdon, Herts - lost apart from some of its cellars - built by Sir William Oldhall in the mid-fifteenth century may have been equally influential; it was certainly no less magnificent. Something is known of it from William Worcestre's description of 1478: J. Harvey, ed., *William Worcestre: Itineraries,* Oxford: The Clarendon Press, 1969, p.50 (Latin), p.51 (English trans.); see also C. Partridge, ' Excavations at Hunsdon House: an Interim Report', *Hertfordshire's Past,* **17,** Autumn 1984, pp.15-24.

43. Royal Commission on Historical Monuments, *An Inventory of .... Huntingdonshire,* London: HMSO, 1926, pp.34-8 with pls. 23, 26, 28, 29. See also W.D. Simpson, 'Buckden Palace', *JBAA,* 3rd ser., **2,** 1937, pp.121-132. Another brick towerhouse attached to an episcopal palace (but now demolished to foundation level) was that at Esher, Surrey, built (*c.* 1462 *sqq.*) by William Waynflete, Bishop of Winchester: Waynflete was both a Lincolnshire man and Lord Cromwell's executor. The foundations were discovered during a brief archaeological excavation conducted there by Channel 4's Time Team in 2008.

44. *Cf.* the discussion in C. Platt, *The Castle in Medieval England and Wales,* London: Secker & Warburg, 1982, re-issued London: Chancellor Press, 1995, pp.120-22.

45. Simpson in Barnes, 1946, p.237.

46. Smith, 1979, pp.31-7; see also Curzon of Kedleston and H.A. Tipping, *Tattershall Castle: a Historical and Descriptive Survey,* London, Jonathan Cape, 1927, pp.63-4; and Simpson, 1960/2010, p.61 n.1.

47. B. Cherry, C. O'Brien, and N. Pevsner, *The Buildings of England: London 5: East,* New Haven CT and London: Yale University Press, 2005, p.719-20 with pl.10, which shows the road rather than the viewing side of the building.

48. N. Pevsner and B. Wilson, *The Buildings of England: Norfolk 2: North-West and South,* London: Penguin Books, 1999, p.721 with pl.74.

49. L.T. Smith, ed., *The Itinerary of John Leland in or about the Years 1535-1543,* London: G. Bell & Sons, 1906-10, re-issued London: Centaur Press, 1964, vol. 1, p.46. N. Pevsner and D. Neave, *The Buildings of England: Yorkshire: York and the East Riding,* London: Penguin Books, 1995, p.595 omit mention of the lodge in their description of the major mid-sixteenth-century residence of the Percy family, which itself had outer walls and towers of brick. The house was derelict by the 1570s.

50. M. Girouard, *Life in the English Country House: a Social and Architectural History,* New Haven CT and London: Yale University Press, 1978; re-issued Harmondsworth: Penguin Books, 1980, p.76.

51. Girouard, 1980, p.77.

52. Girouard, 1980, p.76.

More Dragons out of Grendel's Lair

Alan Cox

The dragon finials recorded herein, plus one 'demon', an eagle, and a dog or fox, have been seen by myself or they are ones I have come across references to or ones about which I have been told.[1] As far as I am aware none of these has previously been mentioned in the various articles which have appeared in the pages of *British Brick Society Information.*[2]

Bedfordshire: Dragon on one of the gable ends of 'Braemar', opposite the Village Hall, Gaddesden Turn, Great Billington, Leighton Buzzard.[3]

Bedfordshire: The restoration of the Swiss garden at Old Warden has reinstated the magnificent terracotta eagle made by Doulton of London for the Lord Robert Henley Ongley in the mid nineteenth century. Ongley inherited the property, in his family since the 1690s, in 1830, and transformed the garden area over the next forty years. In the 1870s, the Ongley estate including the house and the Swiss garden was sold to Joseph Shuttleworth in the 1870s.[4]

Bristol: Edward Everard's Printing Works, Broad Street, Bristol, built 1900-01, is renowned for its splendid faience façade by Doulton & Company. Most of the works was demolished in the early 1970s. Mike Jenner states that 'Only the façade, and a short fragment of the building's red terracotta wall around the corner in John Street survive, and a single terracotta dragon of an original long row of them'.[5] The overall design of the building was by Henry Williams but the façade was the work of Doulton's chief designer, William John Neatby.[6]

Cambridgeshire: Dragon on gable roof of building in Aldermans Drive, Peterborough.[7]

Chester: A colour photograph of a dragon by J.C. Edwards of Ruabon on the top of hipped roof in Chester, for which no address is given, appears in Andrew Connolly's *Life in the Victorian Brickyards of Flintshire and Denbighshire.* Illustrated with it is a drawing of a dragon of this type on a similar hipped roof from Edwards' 1903 trade catalogue, which informs us that it is no.39 and is 2 ft 9 in. (850 mm) high[8].

Cornwall: According to John Ferguson and Charles Thurlow, several dragon roof finials can be seen in the county, mentioning examples in Cromwell Road, St Austell; Treirgie Road, Redruth; and The Harbour Hotel, North Quay Hill, Newquay. The last, from my own knowledge, has a dragon on each of its five dormer-gables, overlooking the harbour. Ferguson and Thurlow add that 'It seems likely from the shape of these dragons that they were made by J.C. Edwards, Ruabon'.[9]

Dorset: Purbeck House, High Street, Swanage (now an hotel), was rebuilt for George Burt, nephew and successor of the well-known London building contractor, John Mowlem. Lynn Pearson notes that: 'In the garden, amongst an odd variety of structures salvaged from Mowlem's London demolitions, is a temple erected after 1878; this has terracotta dragon finials'.[10]

Essex: The latest edition of the Essex volume of *The Buildings of England* includes the following entry for Nursery Road, Loughton:

> 100 yards uphill to the SE is Dragons, 1882-3, by Edmund Egan. Here the local domestic style is elaborated to an outlandish degree, with decorative bargeboards, double-height bay window with upper parts jettied and separated by friezes of terracotta plaques, and dragons on the gable.[11]

Hertfordshire: The Straw House, Spicer Street, St Albans, was a small purpose-built plait warehouse, with an Italianate frontage of stucco, stone, and red brick beneath a slate roof. There is a dragon of the type with an arched back carrying the splayed out wings and a long neck terminating in a stylized head on the end gable overlooking a side passage.[12]

Isle of Man: Two dragons are known from the Isle of Man. A dragon is on one of the corners of Belfast House, Prospect Hill, Douglas. It is set just below the slightly projecting fourth floor of the building and 'used to be fitted back to the wall with a bracket'.[13] The second dragon is perched on the gable end of The Village Pharmacy, Main Street, Kirk Michael.[14] Both dragons are also highly likely to have been produced by J.C. Edwards of Ruabon, since the firm's bright red bricks and terracotta are much in evidence in the Isle of Man.

Isle of Wight: Lynn Pearson remarks that terracotta produced by the local firm of Pritchett & Company is widespread on the Isle of Wight. The firm had works near Cowes and Carisbrooke, and made bricks, tiles, pottery and terracotta around the early 1900s. 'Harry Pritchett was their architectural modeller, and his lively, often hand-crafted figures (including many dragon finials) may be seen throughout the island.[15] The website:

htttp:///freespace.virgin.net/roger.hewitt/iwias/bricks.htm

illustrates one of these dragon finials said to have been modelled by Harry Pritchett in the 1920s.

Kent: Keith Hetherington notes that the High Broons Brickworks on the edge of Tonbridge Wells

> supplied bricks for numerous houses in Tunbridge Wells and the surrounding area ... . On the gable end of the houses you could often see such things as dragons, storks, gargoyles, angels, and many other items, all made at the brickworks and fired in the kilns.[16]

London: The most recent edition of *The Buildings of England: London 1: The City of London* includes Nos 54-55 Cornhill, City of London, built in 1893 and designed by Ernest Runtz. The building is described as 'Red Doulton terracotta in an asymmetrical Loire Chateau style more familiar in Mayfair. Angle turret, mullioned and transomed wndows, gable with squatting demon.'[17]

London: Harry Measures, the Brighton architect worked for the builder and developer William Willett at Hampstead from *c.*1883 to 1891. According to Andrew Saint, 'His style was Queen Anne at its grossest and frothiest, in brick and terracotta with medleys of gables, griffin finials and so forth'.[18] Among houses by Measures for Willett in Hampstead are Nos 22, 24, and 26 Lyndhurst Gardens, and those in Eton Avenue.[19]

London: A very long-necked variety of dragon finial is to be found on Nos 64 and 66 Pinner View, Harrow.[20]

London: No.47 Maddox Street, Westminster, was built in 1892 (architect: Walter Williams) as new premises for a military and naval tailoring firm, Messrs Cooling Lawrence & Sons. It has what is reputed to be the first all-faience façade in London. Lynn Pearson describes it as 'a shiny brown Burmantofts glazed faience façade with good detailing including dragon finials'. The building is now a restaurant.[21]

London: Between 1885 and 1889 Alfred Heaver developed the St John's Estate, Battersea, South London, comprising Severus, Comyn, Aliwal, Eckstein and Boutflower Roads. The houses, totalling 225, have numerous decorative details, with flat-fronted houses having cornices occasionally edged with gryphons or dragons.[22]

London: At least four dragons have been observed at different locations in Walthamstow.[23] All are of the type with an arched back, raised wings and a long neck terminating in a stylized head.

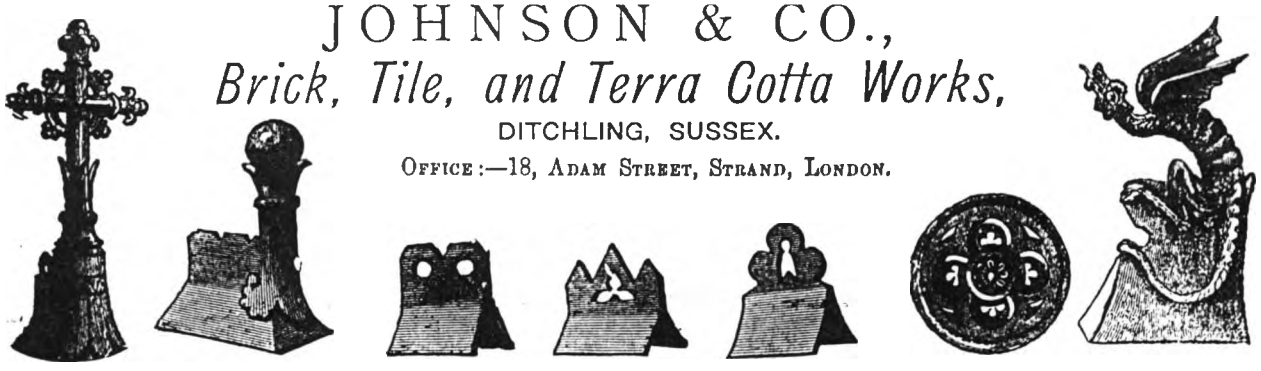

Fig.1 Advertisement for Johnson & Co Brick, Tile, and Terra Cotta Works, Ditchling, Sussex, showing dragon finial (extreme right).

Somerset: There is a terracotta dragon on top of the gable of No.12 Park Street, Minehead. Park Street is a street of shops and No.12 is the only one to have a dragon and may have been rebuilt. The date in the gable is 1887.[24]

Somerset and Bristol: It seems possible that these dragons may have been made locally by Barham Brothers of Bridgwater.[25]

Sussex: There is a dragon on one of the two gables of No.22 Bedford Avenue, Bexhill-on-Sea.[26]

Sussex: In *BBS Information,* **56,** July 1992, Betty Driver and Ron Martin mentioned that Henry Johnson took over the Ditchling works in 1873 and started making dragons and wyverns soon afterwards.[27] An advertisement for his firm appeared in *The Building News* for 14 January 1876 illustrating a dragon as one of the firm's products (fig.1).[28] At that date Johnson had a London office, 18 Adam Street, Strand, indicating that he intended to serve more than local markets. Molly Beswick states that Henry Johnson transformed the Ditchling operation into the Ditchling Terra Cotta Works, and from 1875 to 1883 ran it in conjunction with the Keymer brick and tile works, until the latter was destroyed by fire.[29] I have reason to believe that H. Johnson and Co were also running, in the 1880s, the Fareham red and, apparently, the nearby Fontley blue brickworks in the adjacent county of Hampshire.[30]

Warwickshire: In 2012, a dragon of the arched-back type with a long neck and raised wings was placed on the top of the rear gable of a new block of flats in Bakery Row, Shipston-on-Stour. This overlooks the car park on Telegraph Street.[31]

West Midlands: The King George Memorial Hall, Hockley Heath, on the extreme southern edge of the Birmingham conurbation, has a small fox or dog on the north gable, very similar to the beast on no. 18 Frenchay Road, Oxford. On the west gable over the entrance there is an upright finial resembling a pair of swans standing up with their wings closed.[32]

Wiltshire: *BBS Information,* **56,** July 1992, p.10, mentions dragons in Salisbury, in Castle Street and on Concordes Nightclub, St Mary's Avenue.[33] *Salisbury in Detail,* published in 2009, illustrates a Castle Street dragon, as well as an additional one, to be found on a gable end in Southampton Road. The latter sits on top of a crested ridge-tile, and is particularly well-modelled, with curled tail, wings aloft and head protruding over the ridge.[34]

Yorkshire: Pair of dragon finials on Nos.67-69 (odd) Davenport Avenue, Hessle, near Hull, East Yorkshire, built 1901. The architects, Runton & Barry of Hull, were active in the design of the houses

of the Davenport Estate and many of the villas and semi-detached houses have terracotta finials.[35]

Yorkshire: The *Pevsner Architectural Guide: Leeds* has the following entry for St Chad's Gardens, Nos 114-120 Otley Road, Headingley, Leeds:

> A group of 4 Dutch-gabled brick and faience villas of 1885, built to display the products of Wilcock's & Co's Burmantofts pottery, after its proprietor, James Holroyd, came to live in Headingley. The houses have corner brackets with dragons and griffins and moulded string courses, probably the work of Maurice B. Adams who had been commissioned a few years earlier to design such details for the company to promote their architectural application.[36]

Wales: Lynn Pearson mentions that in Penarth, Glamorgan, 'several houses on Marine Parade and Bridgman Road have two, three or even four red terracotta dragon finials'.[37]

Fig.2 Dragon of unknown provenance, for sale in Cox's Architectural Salvage Yard, Moreton-in-Marsh, Gloucestershire, before 2009

Unknown Provenance: A very fearsome dragon (fig.2 and cover illustration) was for sale some years ago in Cox's Architectural Salvage Yard, Moreton-in-Marsh, Gloucestershire. The dragon has an arched back with raised wings, an open mouth with a salivating tongue in a wide head, and a tail curving round the ridge on which is one of its four-toed feet. [38]

NOTES AND REFERENCES

[1] The generic entries, *e.g.* the Isle of Wight and Penarth, would repay further investigation [Ed.].

[2] A list of all contributions on dragons which have appeared in *BBS Information* has been compiled by David Kennett and has been placed on the society's website. It is available in hard copy from the Editor.

[3] Seen 13 June 2013.

[4] *The Guardian,* 30 July 2014. [It is hoped to have a fuller note on this remarkable object in a future issue of *BBS Information.* Ed.]

[5] M. Jenner, *Bristol's 100 Best Buildings,* Bristol: Redcliff Press, 2010, p.108.

[6] A. Foyle, *Pevsner Architectural Guides: Bristol,* New Haven and London: Yale University Press, 2004, pp.122-4 with colour photograph of the facade on p.123. For Neatby see A. Stuart Gray, *Edwardian Architecture A Biographical Dictionary,* London: Duckworth, 1985, pp.270-1, with black-and-white photograph of the frontage p.271.

[7] Henry Mansell Dockett, *Peterborough and its villages in detail,* Peterborough: Peterborough Civic Society, 2012, p.138 and coloured illustration 55.

[8] A. Connolly, *Life in the Brickyards of Flintshire and Denbighshire,* Llanrwst: Gwasg Carreg Gwalch, 2003, p.101.

[9] John Ferguson and Charles Thurlow, *Cornish Brick Making and Brick Buildings,* St Austell: Cornish Hillside Publications, 2005, pp.140-1.

[10] L. Pearson, *Tile Gazetteer A Guide to British Tile and Architectural Ceramics Locations,* Shepton Beauchamp: Richard Dennis, 2005, p.91.

[11] J. Bettey and N. Pevsner, *The Buildings of England: Essex,* New Haven and London: Yale University Press, 2007, p.574.

[12] K. Carmichael, D. McOmish and D. Geech, *The Hat Industry of Luton and its Buildings,* Swindon: English Heritage, 2013, p. 71 and fig.76.

[13] P. Tutt, *An Introduction to the Architecture of the Isle of Man,* Ramsey (IoM): Lily Publications Ltd, 2013, 115 (coloured photograph of the dragon) and the dragon can be made out in the colour photograph of the whole building on p.97.

[14] Tutt, 2013, colour photograph on p.109 of the whole building; this dragon is also mentioned in the caption to the close-up photograph of the Belfast House dragon on p.115.

[15] Pearson, 2005, pp.129-130.

[16] Keith Hetherington, 'High Brooms and its Brickworks', Bygone Kent, **15,** No.8, August 1994, p.443.

[17] S. Bradley and N. Pevsner, *Thr Buildings of England: London 1: The City of London,,* London: Penguin Books, 1997, p.471.

[18] Andrew Saint notes for the Victorian Society Hampstead Walk, 13 April 1980.

[19] B. Cherry and N. Pevsner, *The Buildings of England: London 4: London North-West,* London: Penguin Books, 1998, pp.238, 242.

[20] Information from John Greenacombe.

[21] Pearson, 2005, p.243. S. Bradley and N. Pevsner, *The Buildings of England: London 6: The City of Westminster,* New Haven and London: Yale University Press, 2003, pp.539-540.

[22] Colin Thom (ed.), *Survey of London Volume 50: Battersea Part 2: Houses and Housing,,* New Haven and London: Yale University Press for English Heritage, 2013, pp.333-4.

[23] Information from Terence Paul Smith, further research in progress and publication forthcoming in *BBS Information.*

[24] Information from John Greenacombe.

[25] The trade handbill of Barham Brothers, showing a large array of finials including a dragon and a serpent, is reproduced *BBS Information,* **56,** July 1992, p.5.

[26] Seen 5 September 1997.

[27] B. Driver and R.G. Martin, 'Dragons, Wyverns and Others: A List of Terracotta Beasts in Sussex', *BBS Information,* **56,** July 1992, pp.13-17.

[28] *The Building News,* 14 January 1876, advertisements, p.x.

[29] M. Beswick, *Brickmaking in Sussex A History and Gazetteer,* Midhurst: Middleton Press, 1993. pp.131 (Ditchling 2) and 205 (Keymer 15).

[30] *Kelly's Hampshire Post Office Directory, 1885*; Hampshire County Record Office: ref.Q26/3/963.

[31] Information from David Kennett. On the society's visit to Shipston-on-Stour, on 7 September 2013, members commented that the dragon was inappropriate for the building on which it had been placed.

[32] Information from David Kennett.

[33] J. Mills, 'Dragons in Salisbury', *BBS Information,* **56,** July 1992, p.10 with photograph of the Concordes Nighclub and its multiplicity of dragons; four are visible in the photograph.

[34] R. Deane, *Salisbury in Detail,* Salisbury: Salisbury Civic Society, 2009, pp.164-5, 168-9.

[35] D. and S. Neave, *Pevsner Architectural Guides: Hull,* New Haven and London: Yale University Press, 2010, p.192.

[36] S. Wrathmell, *Pevsner Architectural Guides: Leeds,* New Haven and London: Yale University Press, 2005, p.262. One of the Headingley dragons is illustrated in colour in H. van Lemmen, *Architectural Ceramics,* Princes Risborough, Shire Publications, 2002, p.27.

[37] Pearson, 2005, p.444. J. Newman, *The Buildings of Wales: Glamorgan,* London: Penguin Books, 1005, p.495 suggests 1880s and 1890s with Henry Snell as the architect. H. Long, *The Edwardian House,* Manchester: Manchester University Press, 1993, p.179, gives a building cost of £1400-£4000 for individual villas on Marine Parade.

[38] G.D. West, *Architectural Salvage: a Guide to Selecting, Buying and Using Reclaimed Building Materials,* Marlborough: The Greenwood Press Ltd, 2010, p.166 with illustrations on pp.2 and 30.

Flying over Oxford

David H. Kennett

The details of the dragons and other beats listed below are a preliminary report from a wider piece of research on the uses of terracotta in Oxford in the generation and a half before the Great War (the period from 1870 to 1914).[1] During this finials were commonly placed on the gables of the houses of the North Oxford estate of St John's College, particularly those on its two principal roads, Banbury Road and Woodstock Road. However, relatively few of these houses actually are adorned with dragons or other beasts. Research on the roof furniture of the houses on the St John's College estate is on-going together with an examination of the uses of terracotta in Oxford, but it seems appropriate to present findings to date (November 2013) in conjunction with Alan Cox's paper on pages 17-22 of this issue of *British Brick Society Information.*

Throughout much of the nineteenth century, Oxford has at least one manufacturer of terracotta artefacts, including headstones in St Sepulchre's Cemetery in Jericho. Thomas Grimsley had his workshop in St Giles Street, immediately north of St John's College, from 1837 to his death in 1875; after which his sons continued the firms. It had moved to Bicester, Oxon., by 1899; it seems not to have survived the First World War.[2]

St John's College faces St Giles Street, so it may be unsurprising that houses on the college estate are adorned with terracotta finials. At least six houses on the St John's College estate have or have had a dragon above a gable. A dragon remains on five houses and has been lost from another; another house has a small ceramic dog or fox; and a pair of houses include an upstanding swan on each front gable and a large swan on one side gable and a dragon on the other side gable.

Nos. 162/164 Banbury Road are a pair of semi-detached houses sharing a gable on the street frontage. There is an arched back dragon with a long outstretched neck at the apex of the gable. The houses were designed in 1901 by George Gardiner of Oxford, who was also the first leaseholder. In 1911, Ernest Gilbert Gay occupied no.164 and a Miss Wuschack was his neighbour.

No.153 Woodstock Road is a large detached house and has a curled dragon on its front gable facing the road. The dragon on no.155 Woodstock Road, also a large detached house, was removed during reproofing some time between October 2000 and early 2004.[3] Like its neighbour, this wingless curled dragon had a formidable scowl on its face. These dragons resemble the Ayl;esbury Museum dragon[4] but are not identical to it. Designed before 1911 by Harry Wilkinson Moore, the houses were built by Samuel Hutchins, a local builder. In 1911, Frank Cooper, whose factory on Park Road produced Oxford Marmalade, was living at no.155, and Matthew H. Peacock at no.153. Immediately north of these two houses on the west side of Woodstock Road are two almost identical houses, also deigned by H.W. Moore and built by Samuel Hutchins. These were reroofed before 1997, possibly several years earlier. No.157 was built in 1901, according to the datestone; it was the residence of Samuel Hutchins the builder from its construction until at least 1924.[5]

No.191 Woodstock Road has a fearsome beast sitting on a crested tile. The outstretched winds of the beast look like those of bat inflight with the finger membranes being very prominent. The head is small. This dragon overlooking Frenchay Road, at the southern end of the long axis of a semi-detached pair of double-fronted houses whose other gables each have a ball finial on a tall spike; the other house of the pair does not have a dragon on its side gable. Again, these houses were designed by H.W. Moore; they were built in 1903. No.191 was first occupied by Alfred Boffin a confectioner, but later Lewis Richard Farnell, Dean of Exeter College and University Lecturer in Archaeology, lived there.

Nos.2 and 4 Chalford Road have an array of beasts. The main body of this semi-detached pair of houses is a long range parallel to the street; the principal rooms of each house have a square bay with a gable above facing the street. On the southern gable of the main ridge is a dragon but at the north end there is a large upstanding swan in the pose the birds take when defending their young or territory. On

each of the gables at the front of the house is a smaller version of the swan. It can be noted that the other semi-detached pairs of houses built to an identical plan as this pair situated north of them on the east side of Chalford Road do not have dragons. Were these the 'show house' for the development?

On no.18 Frenchay Road is a small dog or fox on a gable overlooking the road. This house is one of four semi-detached pairs built on the north side of Frenchay Road in 1897 to designs of H.W. Moore using John Money's firm as the builders, but this is the only one with an animal on the front gable. On Frenchay Road, further pairs to the sam design and constructed by the same builder were erected in 1899 and 1906; again none of these has an animal on its gable. Nor does any of the houses on the south side of the street, built over the same date range, have a dragon or an animal on its gable.

The animal resembles the small dog (or possibly a fox) at the northern end of the roof ridge of the King George V Memorial Hall, Stratford Road, Hockley Heath, West Midlands.[6]

No.226 Woodstock Road is a house north of the St John's College estate.[7] On a narrow site, it has an arched back dragon with raised wings and a long neck on the front gable of the house. This faces the road and the dragon looks benignly down on the passing traffic.

Whilst many houses, both large and not so large, on the North Oxford estate of St John's College have finials, no dragons have been seen on the roads east of Banbury Road, neither on the houses on the Norham Manor estate,[8] developed between the 1860s and the mid 1880s, nor on those on the Linton Manor estate, development of which began *circa* 1900 and continued until the early 1930s with an hiatus during and for some years after the First World War.[9]

Three houses in south-east Oxford have so far been discovered with dragons on them. But, in contrast to the houses on the St John's College estate, the building history of those on Iffley Road and its southern extension, Rose Hill, remains largely uninvestigated.

No.248 Iffley Road is a single detached house with an arched back dragon with a long neck on its front gable. In 1911, it was occupied by David Fisher.

In Oxford buildings with an arched back dragon on a principal gable facing the street are on extremely narrow plots; even the semi-detached pair, nos.162/164 Banbury Road, are squeezed into a site which might equally have been used for a single house. No.226 Woodstock Road is on an especially narrow plot.

Other examples of this type of dragon are to be found in Warwickshire, including two on the former public house on the north side of Wood Street, Stratford-upon-Avon,[10] and that placed above a new block of flats on Bakery Row, Shipston-on-Stour.[11]

'The Limes', no.274 Iffley Road is a house which originally had four dragons and at least one dragon-like finial. 'The Limes', a double-fronted house has a datestone of '1903' above its central door. The fenestration of both sides of the façade ends in a gable with a dragon on top. The main roof is hipped and has a dragon at the north end and the broken remains of a dragon finial at he south end. These four dragons are of an identical type with a tall, vertical piece of terracotta above the ridge forming the body of the beast with growing out of this outstretched wings and a neck of medium length. On the gable to a service wing on the north side of the house is a finial with a tall erect piece of terracotta marked with a circular device; the latter becomes a neck curling from the circumference of the device and ending in a well-moulded head. It is unclear whether the gable to the rear of the house originally had another finial; the two end ridge tiles are modern remplacements. In 1911, 'The Limes' was the residence of Percy Herbert.

No.36 Rose Hill has a crouched dragon, with its feet visible but one wing is lost. The house is the left-hand one of of the final pair of nine semi-detached pairs built in the late 1920s or 1930s to one of two designs. No.36 and its partner, no.34, have the sitting room and principal bedroom pushed forward in the long arm of an L-shape; this ends in a gable. At some point since its construction, an owner of no.36 replaced the original bargeboards to the gable and bought a dragon to enhance, or was it to individualise, the house.

... AND OVER DALLAS, TEXAS

There are four dragons on top of the 'old Red Courthouse', which occupies the block formed by Main Street, Houston Street, Commerce Street, and Record Street, Dallas. The principal entrance is now on Houston Street; internally, the grand staircase is on the Commerce Street side. The courthouse, the third on the site, was built following a flre in February 1890 to the designs of M.A. Orlopp of Little Rock, Arkansas. Construction of the four-storyed building, whose exterior walls are of Pecos red sandstone above a base of Arkansas granite, began in March 1890 and was completed in 1892 at a cost of $350,000, which was $100,000 above the original estimate. The interior has much exposed glazed brick. The courthouse has a complex floor plan and an equally ambitious roof structure. The north and south sides, to Main Street and Commerce Street respectively, each have four circular turrets with tall ball finials above the terminal spire; pairs of turrets flank a gable to the attic storey. Across the centre of the north and south ranges is a hipped roof, orientated north-south. Each hipped roof has a dragon at either end.[12] The building now serves as a museum of the cultural history of Dallas.

In Fort Worth, 50 miles west of Dallas, on the reconstructed Sundance Square, a dark-coloured terracotta American eagle looms above the Sundance Gallery, one of the refurbished buildings, on the square.[13]

NOTES AND REFERNCES

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1 This is part of a more comprehensive survey, 'Dragons, Finials and Plaques: Terracotta in North Oxford': publication is intended in a future issue of *BBS Information.* This will include drawings of the various types of dragon represented in North Oxford. The gazetteer of T. Hinchcliffe, *North Oxford,* New Haven and London: Yale University Press, 1992, pp.215-243, gives full details (where known of the architect, builder, and first leaseholder (with their occupation, if known) of the houses on the North Oxford estate of St John's College. Further details of residents, with their occupations, are available in issues of Kelly's directories; *Keyy's Directory for Oxfordshire* appeared once every four years between 1887 and 1939 and for about a decade after the Second World War. The same firm produced an annual *Oxford Directory* in the latter half of the 1930s. The houses in Oxford were examined between August 2012 and August 2013. Details not otherwise referenced are from either Hinchcliffe, 1992, or issues of *Kelly's Directory for Oxfordshire.*

2 L. Pearson, *Tile Gazetteer: A Guide to British Tile and Architectural Ceramics Locations*, Shepton Mallett: Richard Dennis for the Tiles and Architectural Ceramics Society, 2005, p.284. *Kelly's Directory of Oxfordshire for1899, ... 1911, ... 1924.*

3 First seen before October 2000, and noted *BBS Information,* **81,** October 2000, p.22. Removal of the dragon recorded *BBS Information,* **94,** July 2004, p.2.

4 *BBS Information,* **49,** 1990, p.20; *BBS Information,* **56,** July 1992, pp.10-11, with illustrarion on p.11.

5 Construction details of these houses, Hinchcliffe, 1992, p.241. Samuel Hutchins is listed in *Kelly's Directory for Oxfordshire* from 1911 to 1924, but there is no entry for this house in the 1928 edition. Examination of the electoral register would further refine the date of Mr Hutchins' leaving the house.

6 The hall is clearly visible from Startford Road and is on the southern edge of Solihull Distruct, the south-eastern part of the Birmingham/West Midlands conurbation. The building has been known to the writer since 1997.

7 No construction details are available.

8 This comprises Norham Gardens, Crick Road, Norham Road, Fyfueld Road, and Bradmore Road. Members walked along several of these roads in the Oxford visit in 2012.

9 These roads include Bardwell Road, Chadlington Road, Linton Road, Bellbroughton Road, Northmoor Road, Charlbury Road, Chadlington Road, and Garford Road. At different times prominent Oxford academics, including Charles Frith, J.R.R. Tolkien, and Robin Collingwood, had highly individual houses built for them in this area. The area also includes the Dragon School; unfortunately the original school building has only one

finial, above a large multi-angular bay, but no dragons, except as creats above doorways and cut out on iron gates.

[10] *BBS Information,* **73,** February 1998, 2-3, with cover illustration.

[11] See this issue of *BBS Information,* p.19.

[12] M. Rice, *Dallas Downtown: Romantic Past, Modern Renaissance,* Dallas: Brown Books Publishing Group, 2007, pp.24-27. The dragons are clearly visible on the photograph on p.27, taken *circa* 1900, looking west along Main Street. On the photograph, the Record Street frontage, which faces east, is visible; the hipped roofs above the courtrooms and the dragons are clearly visible. Further photographs with one or more dragons visible, if at times, indistinct, are in Preservation Dallas and Dallas Heritage Village, *Dallas Landmarks,* Charleston, Chicago, San Francisco: Arcadia Publishing, 2008: a photograph contemporary with the building's opening in 1892 on p.63; and on p.105, lower photograph, one taken in 1935 where the courthouse is in the background of a photograph showing the railroad viaduct above the triple road underpass that leads to Dealey Plaza. One of the dragons is clearly visible in the latter photograph. The writer saw the building on 24 September 2010 and again on 2 October 2011.

[13] B. Diamonstein, *New Uses, Old Places: Remaking America,* New York: Crown Publishers Inc., 1986, lower photograph on p.141. *Ibid.,* pp.140-143 deals with the reconstruction of Sundance Square. The writer finds it somewhat ironic that the glass-covered skyscraper, one of four looming over the square and adjacent streets, which is visible in the background of the lower photograph on p.143, should be owned by the Wells Fargo bank, whose mail coaches Butch Cassidy and the Sundance Kid were adept at robbing. The writer must confess that he did not notice the terracotta on his visit to Fort Worth; it reminds us that you only see what you are expecting to see and I was not expecting to see terracotta ornaments on buildings in Fort Worth. A building type where terracotta animals can be expected is the small town banks of the Mid West, for example those designed by Louis Sullivan in Grinnell, Iowa, and Columbus, Wisconsin, see H. Frei, *Louis Henry Sullivan,* Zurich, Munchen, London: Artimes Verlags A-G, 1992, pp.146-151 and pp.158-161, respectively.

Phoenix Brick Company, Chesterfield, Derbyshire: A Footnote in History

Fig.1 The site of the Phoenix Brick Company in March 2014.

As a final note to my article, 'Phoenix Brick Company, Barrow Hill, North Derbyshire' in *British Brick Society Information,* **125,** December 2013,[1] I had the opportunity to visit the site at the end of March 2014 to see what had actually happened. My interest was driven, in particular, by the fate of the two chimneys, seen prominently in the centre of the photograph of figure 1 in my article, as there had been some talk of them being the subject of a "preservation order". Any hope that such an order had been imposed very quickly disappeared as the landscape was no longer dominated by these two structures, but had been replaced by a large pile of hard-core and a skeletal structure of the old brickmaking shed (fig.1).

However, all was not completely lost, as the pile of brick hard-core revealed a number of bricks, with their very different brick marks showing some of the site's history, and all kindly saved for me.

Fig. 2 Edwin Glossop Double Pressed Brick used in the construction of the Phoenix Brickworks.

One brick, in particular, was noteworthy as it provided an answer as to where the bricks came from to actually build the first kiln. This is always interesting when brickmaking is new to a site, and in this case, it demonstrated that the Staveley Company went to a competitor. The first kiln had been built using pressed bricks supplied by Edwin Glossop of Ambergate, Derbyshire, about 15 miles (24 km) to the south. An example of Edwin Glossop's Ambergate Double Pressed brick with a rectangular frog is shown in figure 2. Ambergate Brickworks produced hard and very durable bricks which were a favourite of Sir Giles Gilbert Scott, who used them in Liverpool's Roman Catholic Cathedral and for some of the houses at Ampleforth College. The works was sold to the Butterley Company in 1947, and continued in in production until the early 1970s, by which time the method of manufacture had changed to the "Butterley Boonen" system of semi-automated hand making.[2]

a

b

c

Fig.3 Bricks from the Phoenix Brick Company marked 'Staveley' (**a** and **b**); pressed brick marked 'Staveley Iron Company' with three unusual perforated holes (**c**).

Figure 3 shows a selection of Staveley bricks found on the site. Figure 3c is particularly interesting as marked 'Staveley Iron Company' it has an unusual three hole perforation. Possibly this was an experiment to counter the rise of the wirecut perforated brick.

MIKE CHAPMAN

ACKNOWLEDGEMENTS

My thanks go to Owen Thompson for providing me with the bricks, which were exchanged for a copy of *BBS Information,* **125,** December 2013.

REFERENCES

1 M. Chapman, 'Phoenix Brick Company, Barrow Hill, North Derbyshire', *BBS Information,* **125,** December 2015, pp.4-8.

2 Roy Christian, *Butterley Brick, 200 Years in the Making,* Butterley, Derbyshire: The Butterley Brick Company, 1990,

Brick for a Day, Meetings in Towns, 2013 and 2014

In Autumn 2013, members of the British Brick Society visited two different Warwickshire towns: Shipston-on-Stour on Saturday 7 September 2013 after the visit to Northcot Brick, Blockley, Gloucestershire, and Royal Leamington Spa on Saturday 12 October 2103, a visit rescheduled from the summer. Both town tours were led by David Kennett, who lives in the former. In Spring 2014, there was a London Meeting on Saturday 5 April 2014 visiting the northern part of the former London Borough of St Marylebone led by David Kennett. On Saturday 17 May 2014, the society's Annual General Meeting in the Unitarian Chapel, Bury St Edmunds, Suffolk, was followed by a walk round the town. The accounts given herein have been compiled by the undersigned.

DAVID H. KENNETT

SHIPSTON-ON-STOUR

Until 1931, as an ancient property of the Bishop of Worcester, together with adjacent parishes this Warwickshire town was part of Worcestershire: one of its best-known residents, John Hart, a plush dealer, was High Sheriff of that county in 1731. The "sheep wash town", to translate its Domesday Book name, *Schepwasston,* has as its best street Sheep Street, where the houses were all rebuilt after a disastrous fire devastated much of the town in 1698. Some owners rebuilt in stone; others, like John Pittway, rebuilt in brick. Others covered the brick with stucco. John Hart's brick four-bay brick house on the corner of High Street and Market Place is another rebuilding following the same event. On both Sheep Street and High Street the houses are liberally supplied with fire insurance plaques.

The fire did not reach the east side of Church Street where fine red brick houses in Flemish Bond were built in the eighteenth century, including Quill House, but Platt House was constructed as late as the mid nineteenth century, and a semi-detached pair show distinct Arts and Crafts influence from the end of the latter. South of St Edmund's church, largely a rebuilding of 1855 by G E. Street (1824-1881), the frontages of a series of stone-built houses, originally an inn, attracted the attention of a geologist member: the grey limestone blocks have many ammonites in them. South of this building is the branch library, housed in the former Quaker Meeting House, an ironstone building, to which has been added a modern extension of pale red brick and glass.

Two commercial premises and a former civic building were examined. The Shipston Union Workhouse, between Tileman's Lane and Darlingscott Road, has been instanced times in previous issues of *British Brick Society Information.* After its Poor Law function, it served as the offices of the Shipston Rural District Council until that was abolished in the 1974 local government reorganisation. Because it had extensive land around it, in the 1990s, it was the offices and external showroom, successively, of two different agricultural equipment manufacturers. The land has since been built over with social housing and the workhouse building converted into apartments. Its chapel, a separate building in red brick with stone dressings, became the local Roman Catholic church in the 1930s.

Shipston-on-Stour once had a brewery at the northern end of the town. The offices of the firm were taken over by a building firm who went into liquidation as an early consequence of the latest recession. After a period without occupation, these have become the headquarters of a high-tech firm. This five-storey building in red brick thus has found several uses beyond its first one.

In contrast, during the 1890s the vintners at the southern end of the town had purpose built premises erected using an Arts-and-Crafts-influenced idiom, in red brick with a great deal of stone trim. One participant commented unfavourably on the modern lamp post stuck in front of it.

ROYAL LEAMINGTON SPA

The notes issued for the day, subtitled 'Leamington Spa: Brick not Stucco', reflect the town's image not the reality of the building material actually used in its nineteenth-century heyday. Leamington Spa is a brick built town where some more prominent buildings have façades covered with stucco.

Fig.1 Buildings opposite to the town hall at Leamington Spa. The white stucco visible on those on the left edge, to the right of centre and to the right edge of the photograph is applied to brick walls. The rear and side walls of the stone-fronted bank building are brick.

Stuccoed frontages with brick clearly visible at the rear and sides of buildings are most evident in houses built in the first half of the nineteenth century (many on the Parade now with inserted shop fronts). Notable examples occur in the work of William Thomas (1799-1860). Members saw first Victoria Terrace, built 1836-37, and Lansdowne Crescent and Lansdowne Circus, of 1835-38, and his own house, Elizabethan Terrace, 81-83 Upper Holly Walk, constructed in1836. It is possible to see the rear elevations of all of these where common brick is used, and in the case of Lansdowne Crescent the sheer variety of elevations in contrast to the neat curve and unified façade of the street frontage.

Stucco at the front and an orange-brown brick in Flemish Bond on the sides and rear was used at the Congregational Chapel, Spencer Street, of 1836 by John Russell (*c.*1791-1840). The front is grand: four unfluted Ionic columns beneath a pediment and two Ionic columns behind, flanked by round-headed windows to the chapel. A former chapel at 18 Augusta Place, now in commercial use, is a relatively small building; it has a stuccoed front, but the side wall is red brick in English Garden Wall Bond, three rows of stretchers to each course of headers. Of six bays, and originally galleried, the fenestration is paired lancets above tall paired windows.

Other nineteenth-century ecclesiastical buildings are purely of brick. Two are the work of nationally recognised men; the third by a local man. The earliest of the three is by Henry Clutton, who converted to Roman Catholicism and for his faith built St Peter's, Dormer Place, a big church, properly orientated, with a five-stage, south-west porch tower originally with a spire, in 1865. The nave has low aisles and a prominent clerestory; there are big transepts, each with a rose window; and the sanctuary is a broad apse. Another rose window graces the west end and five windows of the sanctuary are each two lancets beneath a circular opening. The red brick is English Bond in the tower but Flemish Bond in the body of the church.

The two other Victorian brick churches of note were both for the Church of England. At St Paul's, Leicester Street, John Cundall (1836-1889), who practised in Leamington Spa, created a complex of modest vicarage, substantial church rooms, and a not immodest church between 1873 and 1884, all in red brick in English Bond, with bands of black brick. Only the steeple and the five-light Decorated window at the east end make use of stone.

If St Paul's was for a solid working class area on the edge of the exisiting urban area, its near

contemporary, St Mark's on Rugby Road, was aimed at a middle class clientele. A rising star of the London architectural profession, George Gilbert Scott the younger (1839-1897) was commissioned in 1879 to build a church for the new parish of New Milverton on the north side of the existing town. This is a big church, based on early-fourteenth-century precedents for its fenestration, of west tower, a five-bay nave with aisles and a tall clerestory, transepts, and a three-bay chancel slightly higher than the nave. The whole is in red brick in English Bond but with much stone, both as banding in the main body of the church and for the top two stages of the tower, the belfry and above. The contrast with St Paul's extends also to the provision made for the incumbent. At St Mark's, a double-pile house in its own grounds, complete with a service wing to the north and main doors to south and west, was designed by Scott for the parson. He was clearly expected to be of the carriage-owning class: there are stables and a coach house at the rear.

Also on Rugby Road is Milverton County Primary School, attended by the jet engine pioneer, Sir Frank Whittle (1907-1996). Sadly, because of the thick hedges on the edge of the playground, this is not an easy building to examine, unlike its contemporary Westgate Primary School, Warwick. Both schools are buildings whose style is influenced by the Arts and Crafts Movement. Milverton was built in two phases, the earlier, of 1892, is used by children aged seven to eleven: entry at either end divides the pupils by gender. A later building, of 1897, houses the infants department for children under seven and the former master's house. The hall in both parts has a cupola, originally with equipment to control the air flow. These red brick buildings in English Bond and many decorative touches show what can be done, even on tight budgets, and one hopes that the children attending them derive inspiration from their surroundings.

For his secondary education, Frank Whittle attended the former Municipal Schools, Avenue Road. This 1902 building, a competition success by J. Mitchell Bottomley of Leeds, was described by Nikolaus Pevsner in *The Buildings of England: Warwickshire* (Harmondsworth: Penguin Books, 1968), page 335 as "nothing special", a judgment which may be seen as unduly harsh. With several functions combined in a single structure, this was a building designed to offer prestige to the town. It was built as the 'Municipal Schools and Library', with part initially used, following the Balfour Education Act, as the town's coeducational selective grammar school. The front two-thirds, facing Avenue Road, was two storeyed with the public library on the ground floor and the School of Art on the first floor. The rear third, divided by a solid wall from the front portion, was school classrooms, used in the evening by the Technical Institution. The architect's brief required designated spaces for each activity; he fulfilled the brief he was given in a building of red brick in English Bond with much red terracotta, both plain and decorative. The red brick is certainly imported and from the fired colour probably comes from works at either Ruabon or Accrington. The large-scale terracotta hood of the entrance is matched by a triangular gable above the first floor; the front has curved gables either side of this, whilst on the rear elevation are two central triangular gables flanked by single curved gables, a nice affirmation of balance and symmetry. An art gallery of cruciform plan, executed in a lighter brick laid in Flemish Bond, was added to the east in 1928.

The boys left the school part of the building in 1922 for the premises of the former Leamington College on Binswood Avenue: the young Frank Whittle spent the final school year here. Designed in 1847, this building in a Tudor-influenced style has a front in red brick with all-over diaper. The best-known work of Douglas Goodman Squirhill (1809-1863), the school hall has five large windows in Perpendicular style. In 2013, the whole complex was being converted into a luxury retirement complex; the bricks being used for the conversion were supplied by Northcot Brick.

Another school built in red brick with significant diaper is St Peter's Roman Catholic Schools on a cramped site on Augusta Place. The 1879 building has a prominent gable with a broad traceried window flanked by consecration crosses in black brick. Where the original burning has worn away, the diaper has been painted on.

Behind this school is the premises of the Royal Leamington Spa Tennis Club, Bedford Street, which houses a real tennis court. The court is built of common brick laid in English Bond. Lawn Tennis was invented in the town in 1872 when Major Thomas Henry Gem played Senhor Batista Periera, a merchant from Spain, in the grounds of the Manor House, Spencer Street. Now apartments, this 'High Victorian Gothic' building has an asymmetrical street façade, built using a dull red brick laid in Flemish Bond. Built in 1847, for most of its existence, the Manor House had been an hotel.

Fig.2 The town hall at Leamington Spa (1883-86: James Cundall) is built of red brick with many stone dressings particularly on the asymmetrical west front. The bricklaying on this building is of the highest standard.

On the other side of Spencer Street, opposite the Congregational Chapel, are two buildings with leisure connections. The Baths Assembly Hall of 1926 is in bright red brick in Flemish Bond; a former cinema now the Evolve nightclub and Blitz fitness centre of *circa* 1930 has a frontage of dark brown brick in Flemish Bond with three stretchers to every header; the side walls use common brick and are laid in the same variant of Flemish Bond.

Leamington Spa became a municipal borough in 1875, having been governed by a Board of Health since 1852, itself succeeding the Paving, Lighting and Improvement Commissioners in place since 1825. To celebrate the new status, in 1883 the town council commissioned the town's leading architect, James Cundall, to design a new town hall on a corner site with a main frontage on Parade and important side elevations to Regent Grove and to Liversey Place, facing the Regent Hotel. Town halls fall into two types: those which are essentially office buildings, mostly belonging to the 1930s and later, and others, of an earlier vintage, designed to overawe the populace. The town hall at Leamington Spa falls decidedly into the second category but having said that it is a remarkably well-built structure with a high standard of bricklaying throughout, even on the rear elevation where common brick is used. The three principal fronts are in a high quality red facing brick laid in Flemish Bond surrounded by much brown Cotswold limestone.

Leamington was changed from a sleepy village of 67 houses and 315 inhabitants in 1801 by the discovery of the curative powers of its spa waters about when the Napoleonic Wars ended. With visits from the Prince Regent (later George IV) in 1819 and the eleven-year-old Princess Victoria in 1830 the incipient town became fashionable: Victoria came again as queen in 1858. Almost the only tangible reminder of the former popularity is the Royal Pump Rooms; these have a complex building history, beginning in 1813-14 and continuing through to 1997-99 when the conversion to the public library, museum and art gallery with cafe and refreshment rooms was effected. Charles Samuel Smith (*c.*1791-after 1855) built the original assembly rooms of stone with the surviving Tuscan stone colonnade. William Thomas carried out essential maintenance in 1837, and in 1860-63 James Cundall added a series of Turkish Baths west of the original building and a swimming pool west of this: visible above the modern entry is work from this phase in a purplish red brick. A water tower needed for the new functions was demolished in 1950. In 1890, William de Normanville, the Borough Engineer, added a new swimming pool for men only to the north-west of the existing buildings: and the smaller, existing pool became the ladies pool. Externally, this work was in common brick with stucco applied in an arched design; internally it was white glazed bricks. A quarter of a century after the opening of the Royal Spa Centre, which includes a swimming pool, architects working for Warwick District Council remodelled the buildings. The former men's pool became the public library, with lending and children's libraries on the ground floor and the reference library on the mezzanine surrounding this. The ladies' pool area, which since 1950 had been a hydrotherapy centre, became the space for an art gallery. Three of the four rooms of the Turkish Bath were used for a museum; the Hammam was left as an exhibit.

Like Roman baths, the Turkish bath had four rooms to the suite. The Hammam was the final

room where massage was applied. It has a square centre with transepts to north and south and entry to the west. Below the dado, painted wooden panels were affixed to the cemented wall, at first painted blue but an 1880s refurbishment produced a red and black design. Above the dado Flemish Bond is used for four courses of red brick and then fifteen courses of white brick, followed by a further five courses of red brick. The upper group of red brick courses is the start of horseshoe-shaped arches in red brick. The corners are cut to make the upper part of the room octagonal.

If Cundall let his imagination, and possibly his budget, run to flights of fancy at the town hall, his earlier work, both at St Paul's church and in the Turkish Bath, shows a man able to execute a brief to a high standard and on what seems to have been a tight budget.

The Buildings Notes issued for the visit, 'Leamington Spa: Brick not Stucco', have been placed on the society's website, *http://britishbricksoc.co.uk* under 'Meetings'.

ST MARYLEBONE NORTH

Members of the society met at Marylebone Station (1898-99: H.W. Braddock) before heading east into Dorset Square, a little altered example of early-nineteenth-century urban planning, the last of five squares laid out for the Portman Estate. Begun *c.*1815 Dorset Square was built to a high standard in the following decade and a half. The fairly uniform façades are in London Stocks laid in Flemish Bond. The remainder of the morning was spent examining the variety of blocks of flats built between the 1850s and the 1960s on roads just beyond the periphery of Regent's Park. On Park Road, west of the park, except for modern intrusions, the flats were built in the nineteenth century and the blocks are constructed of load-bearing brick. Often, as with apartments on Park Road, a long block might be constructed over several years: subtle differences can be seen between the earliest part and portions constructed later. On Prince Albert Road, north of the park, the building date progresses from Edwardian to the 1930s, with 1960s blocks intruding where these replace former low-rise working class housing erected a hundred years earlier. In the 1930s, steel framing is introduced, as with Viceroy Court of 1937 by Marshall & Tweedy, and the 1930s fashion for metal windows becomes apparent. Brick here serves only as a weather skin.

During the day various churches were seen, beginning with Ninian Comper's earliest complete church, St Cyprian, Clarence Gate, designed in 1902, in a harsh red brick: Comper believed in decorating the interior for "the beauty of Holiness", to quote the seventeenth-century Archbishop William Laud, with whose churchmanship Comper had great sympathy. At the junction of Park Road with Prince Albert Road, the St John's Wood Chapel was proudly celebrating its bicentenary in 2014. Thomas Hardwick designed a stone-fronted building with an Ionic portico facing down Park Road, but the body of the church is in London Stocks laid in Flemish Bond. The side walls have two rows of windows, reflecting the galleried interior. The suburb church halfway along Hamilton Terrace, St Mark's, is in Kentish Rag: Thomas Cundy II designed it in 1846-47. For the Roman Catholic Church, Joseph James Scoles designed Our Lady, Lisson Grove in 1833; built in stock brick over the following three years, this surprisingly large building utilises a plan form based on a north European hall church of the early thirteenth century. Scoles is a much underrated practitioner. The Abbey Road Baptist Church, by Habershon & Pite, dating to *circa* 1900, has as its principal feature a western apse facing the road, flanked by long wings. The major part of this building was converted to flats in 1989.

In the Abbey Road area are a number of synagogues. One, the Liberal Synagogue opposite Lord's Cricket Ground on St John's Wood Road, is now dwarfed by the block of flats built round it. On Abbey Road, itself, the New London Synagogue of 1882 by H.H. Collins is in red brick with two rows of windows visible on the side along Marlborough Place, reflecting the galleried interior. With a bold front, including two (unfinished) towers either side of a bold entry, this is a much more powerful building than the relatively architectural weak offering by T.P. Bennett & Son at the United Synagogue, Grove End Road, part of a complex including a hall and classrooms set round a courtyard, built between 1958 and 1965. This weakness of spirit is especially noticeable when the London building is compared to Eric Mendelsohn's B'nai Amoona Synagogue, University City, in greater St Louis, Missouri, USA, of 1945-50.

Five schools were seen: St Edward's Roman Catholic School, Lisson Grove, part of a convent

designed by G.R. Blount in 1849-50, but with later additions; Gateforth School of the 1890s by architects working for the London School Board; the Francis Holland School for Girls, Park Road, of 1915 by H.T. Hare; Quintin Kynaston School, Finchley Road, of 1958 by Edward D. Mills & Partners; and the American School in London, Loudoun Road, of 1969-71, by Shaver & Co with Fitzroy Robinson & Partners. Each has something to offer the brick enthusiast.

At St Edward's School, it is the 1980s or 1990s additions, low key in a soft brick with the fenestration painted in bright, gay colours, all admirably suited to the age of the pupils using the building: children seen on an earlier were top Infants/lower Juniors (years 3-5 in the modern jargon). Gateforth School is a good example of the triple-decker school of its era, a well-proportioned and solidly built board school. Francis Holland School has good quality brickwork on the portion designed by Hare. This V-shaped building has fine proportions extending over three floors, one a well-lighted semi-basement facing Park Road. The school has expanded along Ivor Place: first with a section of 1950s work and then taking over a former public house on the corner of Gloucester Place. The north-facing brick wall of the original block of Quintin Kynaston School has various coloured mortars used to great effect to provide paterning to the brickwork. The American School is a massive building, overpowering in its irregular plan form, a series of linked hexagons without windows, all executed in a dark brown brick, which are not especially well laid.

Finally, transport. Regent's Canal runs west-east through area. Macclesfield Bridge in London Stocks dated to 1816, in the mid-point of the building of the canal by James Morgan. But in 1874, a gunpowder boat blew up under it and the bridge was reconstructed using the original Doric iron columns supplied by the Coalbrookedale Company. Various members drew attention to the former Marlborough Road Underground Station, almost opposite Quintin Kynaston School. This Metropolitan Line station was left abandoned after the extension of the Bakerloo Line north of Baker Street.

BURY ST EDMUNDS

'Red and white together' might be a suitable way to designate brick buildings in Bury St Edmunds. The society held its 2014 Annual general Meeting in a suitably magnificent red brick building, the Unitarian Chapel of 1711-12. No photograph does justice to the excellence of the bricklaying on the façade: English Bond at its finest and three areas of rubbed and gauged brick — two above the round-headed side windows and the third framing the oculus above the broken pediment crowing the central double doors. Incidentally, it was built of extremely well-made bricks. The interior is equally fine: box pews in the three-sided gallery and a triple-decker pulpit in the centre of the wall opposite the door. The gallery is supported by wooden pillars which go on to form roof supports; additional support for the roof is provided by a pair of great central pillars.

Red brick dominates many of the eighteenth-century houses. Pre-dating the chapel is Angel Corner, with rainwater heads dated 1702, of four bays and two storeys; there is a hipped roof. Other houses in red brick include the Deanery (built as the Clopton Almshouses in 1730), the Manor House for the Countess of Bristol, and James Oakes' house, 81-83 Guildhall Street; the last of five bays with wings added for Mr Oakes by John Soane in 1807, the northern one being the counting house for his bank. But other houses are white brick: the various brickworks at Woolpit, only 4 miles away, was a major producer of 'white' bricks. White bricks, in various shades from off-grey to yellow, were commonly used on the new, brick façades of much older, timber-framed buildings. Affluence was there to be flaunted: in contrast, Lavenham, the archetypal late medieval Suffolk "wool town" had lost its prominence by 1700 and its inhabitants had no money to upgrade their houses.

White brick dominates a group of public buildings which have encroached on a former, much larger market place. Between Cornhill and The Traverse are, from north to south, the Market Cross (once the Town Hall) of 1774-80 by Robert Adam, the first Corn Exchange of 1836 and 1848, and the later Corn Exchange of 1861-62. In 2014, none now fulfils its original function. In 1970-71, the arches of the open space below the first-floor hall of the Market Cross were filled in to provide commercial premises. The first Corn Exchange was extended south to incorporate a fire station. Later the north part of the building became successively the School of Art and then the Public Library and

Art Gallery; the whole is now commercial premises. On each long side, to east and west, at approximately the mid-point, is a Tuscan portico: decorative only but serving initially to separate commerce (the buying and selling of corn) from civic responsibility (the fire service). The library has moved to a fine building in a reddish-buff brick on St Andrews Street South, beyond the original town centre: the tour did not include this building. The second Corn Exchange, by Ellis & Woodard, is a much larger building than its predecessor. The south end of the white brick building in Flemish Bond is dominated by a giant hexastyle portico. The building was renovated in 1969-70 and the single floor divided horizontally to provide shops below and a hall above; the southern part has since become a pub. Once, where traders haggled over the price of barley, is now a place to drink the fruit of East Anglia's golden crop. White brick, too, are the pillars of the shambles, replacing a late-eighteenth-century one, at the north end of the Corn Exchange.

Opposite the south end of the Corn Exchange is a large building in red brick, erected in 1901 for the Alliance Assurance Company, to designs by J.S. Corder; this takes its cue from the firm's London premises on the corner of Pall Mall and St James Street, of 1882 by R. Norman Shaw. The Bury St Edmunds building has shaped gables above each of its three bays and below the first floor a continuous frieze of shaped brick and terracotta going the full width of the building: the influence of Shaw's design on Corder's thinking is strong. Other late Victorian commercial premises in red brick were seen on Abbeygate Street, south of the insurance company's building.

Red brick with black brick diaper dominates on fascinating house on Angel Hill. Lewis Nockalls Cottingham (1787-1847) was a "Suffolk ploughboy made good" as an architect; apprenticed to an Ipswich builder, he worked as an architect's clerk before setting up on his own account 1814. A successful restoration of the central tower of Rochester Cathedral in 1825 led to similar commissions, not least for the brick tower of St Albans Abbey in 1833 and in 1842 the stone-built Norman Gate at Bury St Edmunds Abbey. Modern scholars see his work on these, Hereford Cathedral, and elsewhere as "careful" and "respectful of surviving medieval fabric" in "buildings ... often in a serious state of decay"; his work showed "considerable technical skill in dealing with formidable structural problems". What he lacked was the respect, let alone the approval, of "the more doctrinaire ... Gothic Revivalists". Adjacent to the Norman gate, he designed the first savings bank in the town, the central portion of the diapered building. The rear part, with a whimsical tower, was done next and last the frontage to Chequer Square but because of the consistent deep red brick and black diaper the whole has a unity not often seen in buildings of several phases of construction.

One curiosity which attracted attention was 'the Pillar of Salt', Angel Hill, a direction indicator of 1936 which used to light up at night, both above the pillar and on the triple indicator arms directing motorists on to the appropriate road for Great Yarmouth or Diss or Ipswich. This white, hexagonal upright is the only one of its kind surviving in the world. Although through traffic no longer disturbs the peace of Angel Hill, the great open space in front of the abbey grounds still attracts many vehicles as it serves as a short-stay car park.

British Brick Society Information, **126,** April 2014, contained 'Editorial: Brick in an Eighteenth-Century County Town: Bury St Edmunds', which has pictures of many of the town's buildings, and Graeme Perry's article, 'Brickmaking in the Bury St Edmunds Area'. Fuller details on aspects of the town can be found in the sources just quoted and the references given in them.

Book Review: Ceramic Artefacts for Agricultural Improvement

Edward and Stella B. Davis, *Draining the Cumbrian Landscape: a Revolution in Underdraining with Tiles,* with *A Gazetteer of Sites and Manufacturers* [on a CD]
Carlisle: Cumberland and Westmorland Antiquarian and Archaeological Society, 2013,
218 pages, 16 tables, 142 illustrations; plus CD of 242 pages.
ISBN 978-1-873124-63-5, price £18-00 post free.
Available from I.D. Caruana, Hon. Librarian and Stockholder CWAAS, 10 Peter Street, Carlisle, Cumbria CA3 8QP (tel: 01228-544120)

The cover of this attractive volume is graced by a colour photograph of a disused tile kiln, brick-built and with a tree growing out of its roof. The Newcastle Kiln at Kirkcambeck and an article in the *Prize Essays and Transactions of the Highland Society of Scotland* in 1829 written by John Yule, the land agent of the Netherby estate, at Sandysike in Arthuret parish, some five or six miles north of Carlisle, set the authors off on a thirteen-year quest which has resulted in *Draining the Cumbrian Landscape*. The authors' research covered the introduction of agricultural tiles into the former county of Cumberland, the location of the sites of tileworks, study of the manufacture of the tiles, and the migration into the modern county of Cumbria of both individuals and families to work in the industry. In addition to sites in Cumberland, Westmorland and the Cartmel and Furness areas of Lancashire, which together comprise the modern county of Cumbria, the gazetteer, presented on the CD, also lists tileworks in two parishes in Northumberland and six in Scotland.

The text has thirteen chapters. After an introduction, which includes discussion of the sources used (pp.1-4), and a chapter explaining different types of land drainage (pp.5-8), the authors more or less alternate their historical outline with consideration of the sites where products were made, the uses made of the tiles, and methods of manufacture. Thus 'The arrival of tiles in Cumberland, *c.*1819-c.1829' (pp.9-18) is followed by an examination of 'Early tile-works' (pp.19-28). After the chapter on 'The hand-moulding era, *c.*1830-*c.*1844' (pp.29-38), three chapters consider 'Thorough draining and the use of tiles' (pp.39-54), 'Introduction of tile-making machines' (pp.55-70), and 'Tiles from horseshoe to pipe' (pp.71-86). The next three chapters are historical: 'Tile-making at its peak, *c.*1845-*c.*1869' (pp.87-106), 'Years of decline, *c.*1870-*c.*1900' (pp.107-122) and 'The early 1900s' (pp.123-130). The penultimate chapter examines 'The rise and fall of a rural industry' (pp.131-138) with decennial graphs showing commencement of tilemaking sites, the number of tileworks operating, the number of workers, and closure dates, as well as tables about the number of tile workers in each census in Cumberland between 1841 and 1891. A final chapter looks at 'The legacy of tiles' (pp.139-152). There are appendixes on 'Places, dates, money, weights and measures' (p.154); very useful summaries of 'Acts relating to duty on bricks and tiles' (pp.154-155) and 'Land drainage acts' (p.156); 'Some major tile-making families ...' (pp.157-161); and 'Cubic yards of clay required to manufacture tiles' (p.162). The volume closes with an eight-page glossary (pp.163-170), an extensive and comprehensive bibliography (pp.171-190), a good index (pp.191-200), and a list of tile works in the gazetteer together with an index to the gazetteer (pp.201-218).

Two thoughts arise. From the historical periodisation, one may ask if the historical scheme for the manufacture of agricultural tiles produced for Cumberland, showing tileworks at an operating peak in the 1850s, applies elsewhere. Brickworks and tileworks can be built over when they cease operating, witness at least two different sites in Stopsley, on the outskirts of Luton, over both of which houses were built in about 1960, and from one of which clay was still being extracted in the 1950s, so the physical remains are few. Mr and Mrs Davis provide a partial answer in that kiln materials could be sold off as recyclable building materials (p.148). But are there other reasons, apart from the paucity of research, for the lack of awareness of places where tile drainage was manufactured?

Amongst manufacturing sites, the Newcastle Kiln at Kirkcambeck is one of the few sites to survive above ground level. That at Johnby is marked by "tumbled blocks of stone" and "a single course of bricks which outline the base of the chimney" (p.144 with photograph); other sites may be a few mounds and hollows. Quite how long the Kirkcambeck structure will continue to exist is unknown; the account of the kiln (pp.144-7 with photographs) provides a permanent record of it.

The value to the farmer of the use of agricultural tiles is both hidden and apparent: better drained soil gives higher crop yields on good quality land and allows land which otherwise might have been less suitable for arable to be used as part of crop rotation. Tile drainage gives higher land productivity; prompt maintenance (well illustrated in the photographs on pages 140 and 141) ensures that the system remains in good running order. The productivity of Mr and Mrs Davis in producing *Draining the Cumbrian Landscape* allows for a full appreciation of a hidden and now often forgotten aspect of fired ceramics to be better appreciated. What would be useful are similar studies of the manufacture of agricultural tiles in other areas of Britain, in Ireland and, indeed, in the rest of Europe.

DAVID H. KENNETT

BRICK IN PRINT

During 2013 and the first half of 2014, the compiler received notice of a number of publications of interest to members of the society. 'Brick in Print' has become a regular feature of *British Brick Society Information*, with surveys usually two or three times a year. Members who are involved in publication or who come across books and articles of interest are invited to submit notice of them to the editor of *BBS Information*. Websites may also be included. Unsigned contributions in this section are by the compiler.

TERENCE PAUL SMITH

1. Anon., 'The Georgians',
Country Life, 26 March 2014, pages 78-91.

On the death of Queen Anne on 1 August 1714, her distant cousin the 53-year-old Georg Ludwig, the Elector of Hanover, became King George I of Great Britain, a kingdom then comprising the recently amalgamated thrones of England and Scotland, the former including the Principality of Wales. To acknowledge the tercentenary in 2014 of the accession of the Hanoverian dynasty, which continued until the death of Queen Victoria on 22 January 1901, many exhibitions and events are being staged, not least a multitude of television programmes on the Georgian Century (1714 to approximately 1830) and an exhibition at The Queen's Gallery, Buckingham Palace, London, on 'The First Two Georges', which closes on 22 October 2014.

An early celebration of the dynasty is this *Country Life* montage, consisting mainly of reproductions of paintings and other illustrations. Two double-page spreads are devoted to the reigns of the first four Georges, and include reproduction of a portrait of the monarch and a time line of the period when each was visibly on the throne: George I (1660-1727) reigned from 1714 to 1727; George II (1683-1760) from 1727 to his death, although often absent for long periods; his grandson, George III (1738-1820) had continuous health problems from 1811 (portrayed in Nicholas Hytner's 1995 film *The Madness of King George*) when his eldest son, who later reigned as George IV (1762-1830) became Prince Regent. The last-named was king from 1820 to 1830 and was succeeded by his brother, who took the title William IV.

Members of the British Brick Society will find much to interest them in the illustrations: the text is confined to a single column but there are full picture captions. In the section on George I, we have reproductions of paintings of Holme Pierrepoint, near Nottingham (p.78), and Little Glenham Hall, Suffolk (p.79). The painting of the former is labelled 'an anonymous painting of about 1710'. Holme Pierrepoint, a brick house built around 1500, was extensively modernised in the mid seventeenth century: but did the alterations include the insertion of sash windows on the garden front? These windows may suggest a later dating for the painting. Little Glenham Hall is an Elizabethan house built for Christopher Glenham *circa* 1580 and purchased in 1708 by Dudley North, the son of the economist. The painting was made before the death of his wife, Catherine, in 1715, and well before the house was refronted in the years up to 1722.

Brick interest is less in what is portrayed for the reign of George II: a print of 'The Porcelain Manufactory at Worcester' (p.82) and Covent Garden with its church by Inigo Jones (p.83). The former, like the Newcomen engine (p.78) in the preceding section, reminds us that beyond fashionable houses, Wales, England and Scotland — but not Ireland — were undergoing profound industrial changes throughout the eighteenth century.

The reign of George III is subtitled 'An age of revolution' (pp.84-87), with a view of the Royal Navy's Chatham Dockyard spread across the top two-thirds of pages 84 and 85. The quay and docks at Bristol are also shown (p.87). But what strikes one about the latter is that the houses on the quay are mostly timber-framed and brick where employed is the façade to an earlier building, something which is also apparent from the view of Norwich Market Place in about 1809 by John Sell Cotman (p.90), reproduced under George IV. Social history in the late Georgian period is represented by a cricket game on Molesey Hurst, in outer Birmingham (p.86), not far from Edgbaston, where Warwickshire play today. In the background to the painting is the church tower, which is of brick.

A theme which the *Country Life* montage might have pursued is the industrialisation of the

countryside in the eighteenth century. In the Derwent valley in Derbyshire, Richard Arkwright built the first Cromford Mill (of stone) in 1777 and his brick-built Masson Mill was constructed in 1783: the central surviving neo-Palladian original portion is now covered with stucco. Further down the river, the first mill in Belper was brick-built in 1776, although of Jedediah and William Strutt's complex of five mills only the rebuilt North Mill of 1804 now survives. Jedediah Strutt's mills of 1780 and 1806 at Milford have also been demolished. The new industrial premises were the wonder of the age: the distinguished German architect Karl Fredrich Schinkel specifically travelled to Manchester to view the mills at Ancoats and their stark beauty. Also there is no mention of Ironbridge, although a small illustration of Thomas Telford's Menai Bridge is given in the box on page 90 and Henry Hawkins' painting of the slate quarry at Penrhyn occupies more than half of page 91. The roofs of Holkham Hall, Norfolk, are clad with Penrhyn slates.

D.H. KENNETT

Fig.1 Hostel and crèche, Paris: detail of brickwork and window arrangement: note the two windows with closed shutters.

2. Andrew Ayres, 'Machine of Life: Hostel and Crèche, Paris, France: Chartier Dalix and Avenier Cornejo',
Architectural Review, **1406,** April 2014, pages 84-93.

Ironically, this notice was started on 31 March 2014, the April issue of *AR* having already appeared — *ironically* because the subject is a Parisian building for a socially concerned organisation and on that same day we learned of France's (though not Paris') political swing to the far-right *Front National.* The building was commissioned by the *Régie Immobilière de la Ville de Paris* (RIVP: City of Paris Municipal Property Corporation) to provide two combined hostels: for young workers (*jeunes travailleurs*) and for immigrants (*migrants*); there is a separate neighbourhood crèche on the ground floor.

Bordering on the noisy six-lane Paris ring road (*boulevard périphérique*), it is a collaboration between two independent practices, Chartier Daliz and Avenier Cornejo. It is on a narrow, restricted site, and so rises through ten storeys, the maximum permitted in Paris, with required set-backs at the top three floors. At fourth-floor level the walls are recessed behind the building line to form a continuous balcony with a beautifully finished glass parapet. The building is of framed structure clad with Belgian bricks of variegated hue and texture laid with recessed joints, enhancing the textural effect. The brickwork is contrasted at one point with TECU Gold (copper and aluminium alloy) cladding panels in a vertical incision. The bricklaying is excellent, strikingly so on the smooth curves

which take the façade round the corners. The frame structure allows windows to be placed where internal arrangements require them, resulting in a varied, almost syncopated, rhythm. Beautifully constructed, they are provided with external black folding shutters, increasing the fluctuating appearance depending on whether individual sets are open or closed (fig.1). The interior exhibits considerable finesse in its detailing: *soigné* Andrew Ayres appropriately calls it (p.92).

The title of the article clearly echoes the famous (infamous?) phrase from Le Corbusier (1887-1965) designating a dwelling as 'a machine for living in' (*machine à habiter*); and throughout, Ayres makes reference to Le Corbusier's *Unité d'Habitation* in Marseille (1947-53). There are some likenesses, to be sure; but there are differences too, and it is easier to warm to the Paris building with its softening wrap-around brick cladding and its interior Miesian detailing than to the orthogonal *béton brut* in Marseille. The architects, whilst paying *homage* to 'Corb' 'also expressly set out to dispel the shame that is often associated with hostel accommodation' (p.92). In this they have succeeded magnificently: it is a beautiful example of levelling up.

3. André Dombrowski, 'Brick by Brick: Paul Cézanne's *Abandoned House near Aix-en-Provence*', in Heather Macdonald (editor), *Impressionism and Post-Impressionism at the Dallas Museum of Art,* New Haven CT and London: Yale University Press, 2013, pages 85-95.

Because of the events of 22 November 1963 Dallas acquired a bad name; it has taken most of the past half century to shrug off this reputation.

The Dallas Museum of Art (1984: Edward Larrabee Barnes) can be justly proud of its role in giving the city a new image. Part of its mission since 1993 has been the Richard R. Brettell Lecture Series, whereby a scholar takes a significant work or group of works in the museum's collection and relates them to other important works, whether paintings or sculptures. The volume presents extended versions of twelve of the lectures delivered between 2008 and 2012.

One lecture and subsequent essay concerned *Abandoned House near Aix-en-Provence* — a painting the writer of this notice must admit he failed to take in on either of his visits to the museum. Paul Cézanne painted this work sometime between 1885 and 1887; there is a near contemporary work, *House in Provence* (Indianapolis Museum of Art), but the house depicted therein gives the distinct impression of being occupied. The abandoned house was built of brick but rendered; however, fallen bricks lie piled against its gable wall and are depicted individually. The house was roofed with red pantiles but some of these are broken.

Dombrowski relates the painting to contemporary French architectural publications, notably those of Eugène-Emmanuel Viollet-le-Duc and Pierre Chabat of which Cézanne was possibly aware. It is less obvious that the artist may have known the much earlier drawings of Karl Friedrich Schinkel. The discussion includes other paintings by Cézanne with bricks in them: *Pistachio Tree at Château Noir* (Chicago Institute of Art), where bricks are used to form a raised bed, and *The Basket of Apples* (Chicago Institute of Art), where two stacks of bricks support a board and the basket itself is propped up on another brick.

Other essays in the volume show off just a few of the exceptional riches in the collections of the Dallas Museum of Art.

D.H. KENNETT

4. Geraint Franklin, 'On the Tiles',
C20: Magazine of the Twentieth Century Society, **1, 2014** [March] 2014, pages 12-15.

In 1939 Hans Coper (1920-1981) fled Germany for England, where he established himself as a potter. But in the 1950s he was commissioned to design a number of ceramic building materials.

They included a series of extruded cladding tiles based on the principle of eighteenth-century and later mathematical tiles. Coper's tiles, manufactured by the Maidenhead Brick Company of Burgess Hill, Sussex, were used on at least two Nottinghamshire schools built using the CLASP system. Of a distinctive stepped profile, they could be used alternate ways to produce richly textured surfaces (fig.2). The article has colour photographs of the schools: Newark Orchard School, Applegate, Newark, and Nettleworth Infant and Nursery School, Mansfield Woodhouse, Mansfield,

both of the mid-1960s. 'There must be others,' Geraint Franklin claims (p.14). Are there? Do any British Brick Society members know of them?

Coper also designed a range of acoustic facing bricks to be laid in a zig-zag fashion, which 'combined sound absorbency with a sculptural appearance' (p.14); frost-proof tiles of vitreous glazed fireclay; and concave tiles used vertically as a richly textured cladding.

Production of the mathematical-tile-type components ceased in 1969. The variegated red textual effect was so attractive that one can only mourn the passing of these inventive cladding materials.

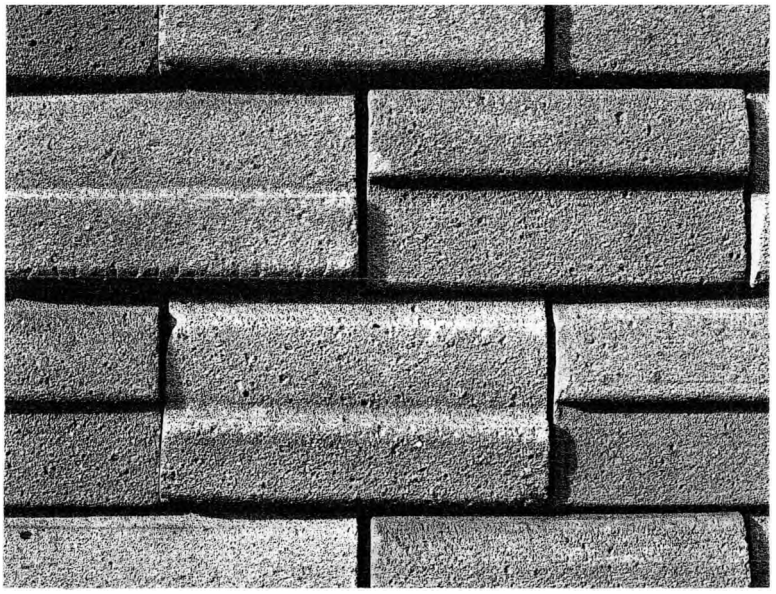

Fig.2 Cladding designed by Hans Coper for use on schools.

5. Kester Rattenbury, 'Pattern Language: Saw Swee Hock Students' Centre, LSE. London, UK: O'Donnell & Tuomey',
Architectural Review, **1405,** March 2014, pages 50-57.

One need not accept all that Prince Charles avers — 'The Palace' insists that he does not *debate* — to agree that London (though not *just* London) has sometimes been ill-served by post-War architects: *cf.* Leon Krier's essay in this same issue of *AR,* pp.83-87. (Is Krier, one wonders, mentor or amanuensis to HRH?) 'London,' Kester Rattenbury observes, 'was once a brick city, but brick is a stranger material in these days of steel and concrete structure' (p.52; 'stranger', I take it, is a synonym of 'alien' rather than the comparative of 'strange').

Of course, concrete and steel (and glass) are not the *only* materials in post-War London, and there are impressive brick buildings aplenty, by such disparate architects as N.F. Cachemaille-Day, CZWG, Darbourne & Darke, Jeremy Dixon, Robert Matthew Johnson-Marshall & Partners, Sir Albert Richardson, Sir Giles Gilbert Scott, and many others. But the newer materials have been most prominent, both in the built environment (they are used, of course, for the inescapable high-rise constructions) and in architectural discussion.

Perhaps for that very reason — though presumably in consultation with the client — Dublin-based O'Donnell & Tuomey (ODT) chose red brick for the £24 million Students' Centre for the London School of Economics, WC2, named in honour of Prof. Saw Swee Hock of Singapore, who graduated from LSE in 1962. Not that the building itself is in any way traditional. Indeed, its complex up-and-down prismatic forms would almost certainly be undesignable without the aid of computers: in places the building resembles something by a Zaha Hadid or a Daniel Libeskind converted to the use of brick — if *only*! Oliver Wainwright, in *The Guardian,* 22 February 2014, nicely describes the configuration of the building as 'red-brick origami'. It blends well with its neighbours, especially the

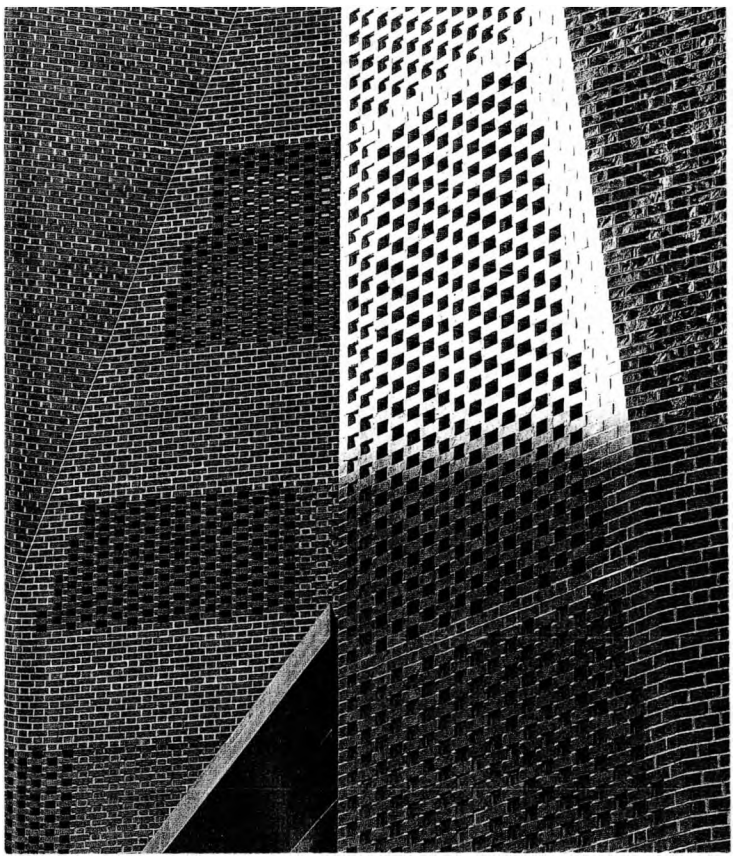

Fig.3 Saw Swee Hock Students' Centre, LSE: detail of brickwork.

St Clement Danes Parish House (1897-8: H. & P. Currey), of red brick and, unusually for a neo-Gothic building, in Flemish Bond. The new building is hemmed in by its neighbours and is best viewed from Portsmouth Street.

O'Donnell & Tuomey have already demonstrated their ability to design in an up-to-date brick style which does not clash with its surroundings but does not merely ape them either, for example at their Lyric Theatre, Belfast (see *BBS Information,* **118,** October 2011, pp.30-32).

The bricks for Saw Swee Hock 'were handmade in the Forest of Dean, by men turning clay out of wooden moulds, ... taking 30 seconds per brick' (p.58); they also had to produce more than a hundred types of specials and 'special specials' — that is, brick types designed specifically for a particular building. As an internet search revealed, the bricks were produced by Coleford Brick & Tile of Cinderford, Glos.; for such an accomplished building it is worth adding (what *AR* does not mention) that the main contractor was Geoffrey Osborne and the structural engineers were Dewhurst Macfarlane & Partners/Horgan Lynch Consulting Engineers. (I am puzzled why *AR* seems not to regard this information as worth giving whilst its stable-mate, *Architects Journal,* does.)

The standard bricks — which I measured to some curious looks! — are 205-210 × 95-100 × 60-65 mm. The inevitable irregularities of handmade bricks contribute to the textural interest of the building. So too does the bricklaying. The bricks are laid in Flemish Bond, which enables the large expanses of brickwork to be texturally relieved by creating irregularly shaped panels in two ways (fig.3): first, by omitting the headers to form open honeycomb screens with opening/closing windows behind; and second, by slightly recessing them to form panels which echo the honeycombs whilst remaining solid brickwork. Particularly impressive is one inverted planar triangle of impeccably laid bricks relieved by a twin panel created in both the ways noted here (fig.3, bottom left). *Pace* Ellis Goodman in *Building Design,* 29 January 2014 (accessed online 6 March 2014), the few expansion joints are in no way obtrusive: they are, in fact, discreetly placed, by running diagonally in echo of other slopes, by continuing vertical façade junctions, or in one case by neatly bisecting a triangular

panel. (The exception is high up on a short return wall not visible from ground level: it can be seen in a photograph looking down from a neighbouring building, illustrating a warm appreciation of the building by Douglas Murphy, 'LSE Student Union', *Icon,* **181,** May 2014, pp.38-40.) It is all a tribute to the thoughtfulness of the architects and the remarkable skill of the (of course unnamed) bricklayers. What's more, it will improve with age, as the brickwork mellows.

The interior of the building is less relevant to British Brick Society members, but displays the same careful attention, from the complex *jeu d'esprit* of the concrete spiral staircase, through the harlequinade of enamel panels round the lift-shafts, to the Miesian finesse of some of the other interior detailing. Struts, handrails, and some other metalwork are in the architects' favourite oxblood red. There is a little internal brickwork, but one curved wall includes decoration in the form of slightly projecting headers. Floors are of terrazzo, timber, or red bricks laid on edge. This 'attention to the craftsmanship of building' has led to Saw Swee Hock being one of the six buildings nominated for the Stirling Prize of the Royal Institute of British Architects as 'Building of the Year' in 2014. Oliver Wainwright in *The Guardian,* 17 July 2014, described the new student centre as 'a handsome brick mountain that contains a beguiling sequence of interior spaces within its origami folds'.

Saw Swee Hock is a remarkable building, a worthy addition to the London scene and a reminder that there is an alternative to the Prince of Wales' and Leon Krier's neo-Classicism or *faux* vernacular — 'Duchy Unoriginals' one might say! — in place of metal, concrete, and glass.

The *AR* assessment is warm, marred only by rhetoric worthy of *Private Eye*'s 'Pseud's Corner': the building, we are told, 'is a brilliantly curated construction process that loves subliminally reminding you how people make buildings' (p.55), which — assuming that *processes* can *love*, 'subliminally' or otherwise — presumably means *something* — but *what* exactly?

6. Michael Webb, 'Planting Seeds: Women's Opportunity Centre, Kayonza, Rwanda: Sharon Davis Design',
Architectural Review, **1403,** January 2014, pages 62-69.

This intriguing complex, a centre for teaching cultivation skills to the women of Kayonza village, Rwanda, includes a long range of farm storage buildings constructed of local boulders; but for the classrooms, lodgings, kitchen, guest rooms, WCs, and a sinuous wall round part of the site, New York-based Sharon Davis chose brick. The 450,000 red bricks were handmade on site by the centre's users.

The classrooms have an open-scroll plan — imagine a pushed-in letter C — with the gap forming the entrance. These seven structures, of varying sizes, have bricks laid in English Bond; but above a low footing, alternate bricks in the header courses are omitted, giving a honeycomb appearance and providing ventilation, 'drawing in cool breezes but shutting out wind-driven rain' (p.65). Floors and the tops of the brick-built benches are of local, elaborately-shaped tiles, as are some patios. Other buildings are circular, often with intersecting circles, or S-shaped, whilst yet others are orthogonal, though sometimes with quadrant corners.

To avoid the bugs living in traditional thatch and the heavy weight of the local tiles, roofs are of corrugated iron carried on tapered girders independently of the brick walls. These roofs are carefully designed and executed — far more attractive than the term 'corrugated iron' may suggest. They also facilitate the collection of rainwater, cleverly directed by a steel 'chain drain' — essentially, a series of tiny water-catching hoppers — to underground cisterns. There it is kept cool and then filtered and used (or sold) as drinking water — important in a country with alternating heavy rainfall and drought. Water is also saved by using composting toilets, allowing human 'waste' to be used as fertiliser — which is thus not *waste* at all.

In all, this is an attractive as well as a thoughtful and considerate complex, miles away — literally and metaphorically— from the often self-celebrating creations of some more prominent architects. One may hope that success will not lead Sharon Davis in that direction.

7. Witherford Watson Mann [Architects], 'Negotiating the Ruin: the Reinhabitation of Astley Castle, [Warwickshire,] Told through the Drawings of its Architects ...',
Architectural Review, **1404,** February 2014, pages 42-51.

'Brick in Print', *BBS Information,* **121,** September 2012, p.32 included an account of an *Architectural Review* article on the refurbishment of Astley Castle, Warks., by the Witherford Watson Mann practice. In the article noticed here the architects tell their own story with a brief text (p.51), a colour photograph of the pre-restoration ruin, a series of sketches (one in watercolour) and drawings, and photographs of models.

One need not repeat what was said in the earlier *BBS Information* piece, except to note that the architects chose to use red brick for their additions and did not attempt to replicate any of the various styles present in the original building, which was stone with some brick additions.

In a series of illustrations, from a most rudimentary site sketch, through developmental sketches, to a beautifully finished drawing of the architects' new work, one is allowed to enter the minds of a team facing a challenging project. Particularly telling is the juxtaposition of one preliminary sketch and the relevant finished drawing (unnumbered, pp.44, 45).

The article accompanied an exhibition at the Sir John Soane Museum, London, 4-15 February 2014. Unfortunately, a planned visit had to be abandoned due to plumbing problems in my flat.

8. Sam Wotipka, 'Brewing Benefits? Alcohol, Hangovers and Better Bricks',
New Scientist, 30 November 2013, page 23.

This article tells that blending the grains left over from beer-brewing with brick clays could result in more environmentally friendly products which also have improved insulation. Mixing polystyrene with the clay has the same effect, but EU regulations on carbon emissions make this expensive. The left-over grains do not present this problem. They are cheap, normally being used for animal feed or ending up in landfill. One problem for the brickmakers is the stench of the material, which comes as a pulpy mush, although the smell does not persist in the fired bricks.

A letter from Colin Gray in *New Scientist,* 4 January 2014, p.29 mentions trials using steam-sterilised cellulose fibre from municipal waste as an additive, improving both strength and thermal efficiency. Other benefits not mentioned in the original article are savings in firing, less need for costly sand and hazardous additives to avoid salt marks, and the potential for including small amounts of waste glass for decorative effects. Unfortunately trials had to be abandoned due to regulations regarding brickworks and the use of industrial waste. A nice cartoon-comment on this last aspect shows a man wheeling a barrow-load of *red tape* to a brickworks!

KOKSIJDE/COXYDE: A BRIEF NOTE

An endnote to an article on Coggeshall Abbey, Essex, in *BBS Information,* **126,** April 2014, p.15, n.4, accuses Jane Wight of using 'the curious spelling "Coxyde" for the town', and abbey, of Koksijde, Belgium. In fact, it is not at all curious: Belgium has two official languages, and Coxyde is entirely correct *French* for the *Flemish* Koksijde. Similarly, the French Les Dunes may be used in instead of the Flemish form Ter Duinen. Concerning the latter, one may add, it is somewhat ironic that the author twice (p.11 and p.15, n.4) uses the 'curious spelling' Ten Dunien, which is just plain wrong.

T.P. SMITH

British Brick Society: Annual General Meeting, 2015

The 2015 Annual General Meeting of the British Brick Society will be held at the Black Country Living History Museum, Dudley, West Midlands, on Saturday 30 May 2015 at 11/00 a.m. We hope that as many members as possible will be able to attend.

BRITISH BRICK SOCIETY
MEETINGS in 2014 and 2015

Saturday 26 July 2014
Summer Meeting
Worcester
Brick buildings of various dates from the eighteenth century onwards, including St Martin's church, the Guildhall and houses; an important group of terracotta clad buildings erected 1880-1915; and commercial and public buildings of the inter-war years.

Saturday 6 September 2014
Brickworks Meeting
Aldershaw Homemade Tiles, near Seddlescombe, East Sussex
Tile and brick manufacture in a rural setting

Saturday 30 May 2015
Annual General Meeting
Dudley, West Midlands: the Black Country Museum

Details of the Brickworks Meeting are included in this mailing.

Details of meetings in 2015 will be included in future mailings.

Ideas for 2015 include town visits to Oxford South and West, to Battersea (south London), and to Fenny Stratford, Bow Brickhill, and Willen in north Buckinghamshire. We hope to arrange these visits on Saturdays at intervals of approximately five weeks apart in late March, mid-June and mid-July. There is also a projected visit to the Tilbury Forts in August 2015, which may be a midweek visit, and we hope also to have a brickworks visit in September 2015. Preliminary details will be given in the next mailing.

The British Brick Society is always looking for new ideas for future meetings.
Suggestions of brickworks to visit are particularly welcome.
Offers to organise a meeting are equally welcome.
Suggestions please to Michael Chapman, Michael Oliver or David Kennett.

Changes of Address

If you move house, please inform the society through its Membership Secretary, Dr Anthony A. Preston at 11 Harcourt Way, Selsey, West Sussex PO20 0PF.

The society has recently been embarrassed by material being returned to various officers from the house of someone who has moved but not told the society of his/her new address.