Some Recent Discoveries

by

STEPHEN CROAD

The notes which follow are intended to highlight some of the more interesting results of survey work by a number of national recording agencies. Many of the sites will be familiar, but recent investigation has often shed new light on, for example, their development or construction. The famous, but undervalued, Thames Tunnel is a case in point. Others are little known and publication of details about them may lead to additional information or other discoveries being brought to light. Some of the findings are provisional and will almost certainly be revised as investigation and research continue. The most important discoveries may result in future publication in these pages or elsewhere. For example, an article on the Georgian powder magazines at Purfleet is already in the course of preparation.

The editor would welcome comments and suggestions for future editions. For providing information for this compilation, we are most grateful to staff in the Royal Commissions on Ancient and Historical Monuments (Richard Suggett in Wales and Tony Calladine, John Cattell, Ian Goodall, Peter Guillery and Edmund Lee in England) and the Environment Service in Northern Ireland (Nick Brannon).

BRECKNOCKSHIRE

Barn at Prest-dabuan, Llanwrthwl

Farm amalgamations and changes in farming practice in upland Wales have rendered many vernacular farm-buildings obsolete. A dilapidated barn at Prest-dabuan (Fig.1), the only surviving building of a former farmstead, has an uncertain future although it is a building of considerable interest. Nineteenth-century alterations disguise a relatively complete timber-framed building of three bays. Two fine cruck-trusses flank the threshing floor, but the contemporary gable ends are box-framed. The original framing had different infills in the upper (woven laths) and lower (horizontal boards) tiers. Relatively complete early timber-walled barns with crucks are rare, and their dating uncertain. However the following chronology seems likely for central Wales: (1) late medieval, *c.*1450 - *c.*1550, fully cruck-framed, including the end trusses; (2) mid-sixteenth to mid-seventeenth centuries, cruck-framed central bay with box-framed ends; (3) late sixteenth century onwards, but especially after 1650, fully box-framed barns, which are relatively numerous.

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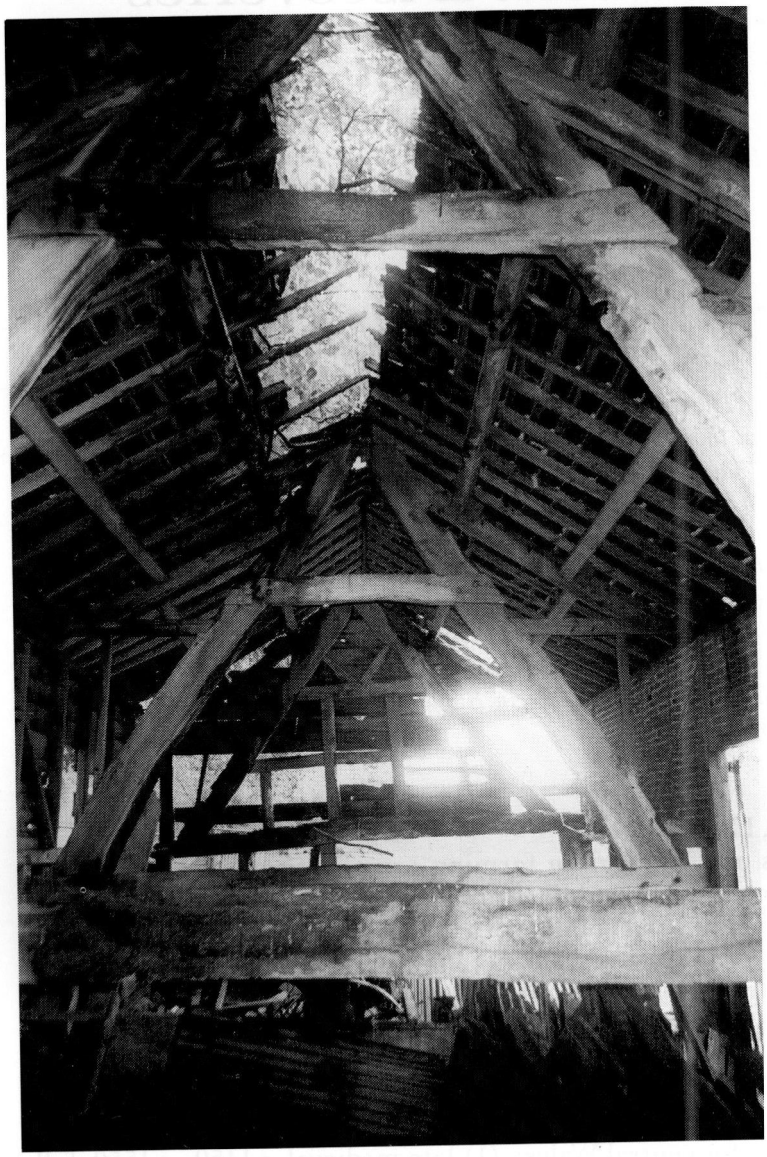

Fig. 1
Cruck barn at Prestdabuan, Llanwrthwl, Brecknockshire
Royal Commission on the Ancient and Historical Monuments of Wales

BUCKINGHAMSHIRE

Walton Mill, Park Street, Aylesbury

Walton Mill is a large corn-milling complex on the Bear Brook, close to the town centre, and is probably on a Domesday site. Its importance is indicated by the variety and scale of the surviving group of buildings, and elements were being added until the late 1960s. The adjoining wharf on the Grand Union Canal was an

important asset and milling here has only ceased in the last few years. The whole complex is now disused. The four-storeyed, brick, eighteenth-century watermill survives as the core of the complex and is the oldest building on site. Despite being an addition to the mill, Walton Mill House is the only building that is listed. Several other historic elements of the site also survive.

CARDIGANSHIRE

Llanfechan, Llanwenog

Llanfechan is a ruined late eighteenth-century villa which has been tentatively attributed to John Nash. The villa was built for Admiral John Thomas *c.*1790 in a rather unfavourable situation, abandoned less than a hundred years later and the site more-or-less 'forgotten'. The roofless shell survives with the walls still standing to wall-plate level. An early nineteenth-century engraving reveals the resemblance between the main elevations of Llanfechan and Nash's Llanaeron with radial-fluted windows flanking a recessed central entrance bay. The interior has been gutted but the plan can be reconstructed from a description in Meyrick's *History and Antiquities of the County of Cardigan* (1810).

CORNWALL

South Crofty Mine, Carn Brea

South Crofty is the only working survivor of the hundreds of tin mines that have operated in Cornwall in the past. The upper levels of the mine incorporate old workings for copper that are known to have been in operation in the eighteenth century. The company known as South Crofty Ltd. was registered in 1906 and it proceeded to develop the downward extensions of the lodes, or mineral veins, that had previously been worked by several former mines. The South Crofty mining operations were concentrated on two shafts: Robinsons to the east and New Cooks Kitchen to the west. The former still retains its engine house, complete with Cornish beam engine for pumping. The latter has become the main shaft of the mine although the nearby treatment plant for the tin ore is out of use. All the ore from the mine is now transported several miles to the tin-processing mill attached to the defunct Wheal Jane mine.

CUMBRIA

Aluana Roman Fort, Maryport

The earthwork remains of the Roman fort at Maryport have been surveyed in detail for the first time. Although the interior of the fort had been extensively damaged by stone robbing, medieval ploughing and nineteenth century excavation, interior features were still revealed by the 1:500 scale survey, part of the work to provide management information for the Hadrian's Wall World Heritage Site. Angle and projecting bastions added to the square plan of the fort defences suggest modification of the site in the late third century. Transcription of plough-levelled features recorded on air photographs of the site at 1:2500 scale provided further detail on the environs of the fort and the associated 'vicus' settlement.

DORSET

Malthouses at Brewer's Quay, Weymouth

The concentration and survival of three (formerly four) maltings, built at different times in the nineteenth century, in such close proximity is rare. In spite of the loss of the major part of malthouse No.3, the surviving malthouses illustrate the development of the building type and of the process of malting and the legal constraints imposed upon it during the nineteenth century. They show development away from the vernacular tradition, exemplified by malthouse No.1, to the brick-built multi-storey form of malthouse No.4. Malthouse No.2 is also of particular note, in that it is an early example of an architect-designed maltings. It is remarkably different from No.4 next to it, designed by the same architect, G.R. Crickmay, twenty-eight years later. Both malthouses No.2 and No.4 retain fixed and movable machinery and tools relating to malting. The distinctive features of the three surviving maltings may be summarised as follows.

Malthouse No.1 was built before 1864 in vernacular style. It retains its kiln drying floors, flat-bottomed steep and evidence of a couching frame. During the malting process, the steeping cistern was drained and the grain piled deeply beside the 'steep' in a 'couch' to generate heat and promote 'chitting'. The Excise Officer, who had measured the volume of the barley in the steep, measured the couch, so that the increased volume due to steeping could be calculated. The malt tax was assessed on the increase. The principal growing floor of malthouse No.1 is unusually wide (about 13m) for a maltings built before 1864. The unusual width and the L-shaped plan were probably dictated by the constraints of the site, which did not allow for the construction of a malthouse of the more usual narrow linear plan.

Malthouse No.2 was designed by G.R. Crickmay of Weymouth in 1861. It is an early example of an architect-designed maltings. Like malthouse No.1, it retains its kiln drying floors, flat-bottomed steep and evidence for a couch frame. The bracketed columns at the south end of the middle growing floor, which support the attic malting floor, are an unusual feature. It is an example of the Ware pattern of maltings, in which storage is positioned at either end of the building, not above the growing floors as in the Newark pattern (see malthouse typology by A.Patrick in *Industrial Archaeology News*, 91 (Winter 1994) p.4).

Malthouse No.4 was also designed by G.R. Crickmay, in 1889. The building illustrates development in the techniques of building construction from malthouse No.2, and the changes in the malting process which took place after the repeal of the malt tax in 1880. Malthouse No.4 is remarkably different from malthouses Nos.1, 2 and 3 because of its multi-storey construction, ostentatious use of polychrome brickwork, the use of reinforced concrete (only introduced to Britain *c.*1850), steel/iron beams, concrete jack-arching and the use of cast iron hopper-bottomed steeps, which dispensed steeped barley onto the growing floors by gravity feed. It is also the only maltings yet known to contain 'Lasts Patent' system for assisting the draft to the kiln. In terms of typology it is a hybrid between the Ware and Newark types of malting, in that there is some storage at one end and storage over the growing floor range. It is likely that this arrangement was also due to the

constraints of the site, which meant that there was no room for malt storage north of the kilns.

Despite the many differences between the buildings, there are also important similarities; most notably in malthouses No.1 and No.2 are the positioning of the barley store in a range at right angles to the growing floors, the form of the kilns and the use of flat-bottomed steeping cisterns, in accordance with the excise regulations in operation until 1880. All three buildings make an important contribution to the townscape, by virtue of their form, distinctive fenestration and materials. In addition they have historical group value with the brewery which dominates Hope Square.

DOWN

Fish Traps in Greyabbey Bay, Ballyurnanellan and Bootown

Greyabbey Bay is situated on the Ards Peninsula on the east shore of Strangford Lough. Bound by the peninsula on the north and east and by Mid and South Islands on the west side, the rectangular bay is a tidal mud-flat some 1.5km in extent. Close to the shore in the north-east corner of the bay is an Early Christian period rath and a Cistercian abbey. The almost level mud-flat is dotted with low areas of boulders, remnants of wave-eroded drumlins. Ancient pine stumps found in the mud testify to changes in sea level. In the barely perceptible channels between the eroded drumlins three wooden fish traps have been located. Each is V-shaped in outline with leaders up to 300m in length converging in at least one case in a woven putt. Radiocarbon results are not yet available for these structures. In addition, five stone fish traps are systematically positioned around the bay to maximise the catchment zone. Four of these traps approximate a V-shape, combining with the local topography, while a fifth is built as a curving arc. Dating is more difficult for these structures, but one is stratigraphically later than a wooden trap, while another has wooden components which await radiocarbon determination. The widely spaced distribution maximising the catchment area perhaps indicates contemporaneity. There is evidence for the deliberate slighting of the stone traps and for the reuse of the removed stones in kelp grids.

ESSEX

No.5 Powder Magazine, Centurion Way, Purfleet

No.5 is the only survivor of a group of five large gunpowder magazines built in 1763-5 to designs by James Gabriel Montresor for the Board of Ordnance. These magazines were the government's principal gunpowder depôt and this building appears to be the most substantial surviving powder magazine in England. A rectangular brick structure with twin barrel vaults, it survives largely unaltered and retains many internal features of interest. There is evidence of the precautions taken to avoid accidental ignition of the gunpowder in the use of copper and the avoidance of iron in the building fabric. The original overhead travelling crane system is the earliest known surviving instance of this method of goods handling in England. The timber king-post roof frame is also notable, exceptionally densely built in order to help contain any accidental explosion.

St Aylotts, Saffron Walden

St Aylotts, a two-storeyed house on a moated site, was erected in 1500-1 by Walden Abbey. It became part of the Audley End estate after the Dissolution when the possessions of the abbey were granted to Sir Thomas Howard. The ground floor is of red brick, incorporating some diaper work close to the main entrance, with a limited amount of stone dressings. The jettied first floor is timber-framed and pargeted, and the steep, double-pitched roof is tiled. Three brick stacks rise through the jetty and lie flush with the walls of the first storey. A fourth stack, inserted in the twentieth century, rises to the ridge. There are staircase projections at the north end of the west side, and at the south end of the east side. Internally, the building comprises eight bays and was floored throughout. It appears to represent a complete dwelling: originally the service rooms were located in the north end of the building, the hall was in the centre and the solar to the south. The service rooms included an internal kitchen, an unusual feature for an early sixteenth-century house of this status. A number of sixteenth-century timber doorways with four-centred heads, carved spandrels and moulded jambs survive. The roof trusses have intersecting curved braces above the collars, and two tiers of wind-braces (Fig.2). An outbuilding connected to the east side of the house by a single-storey corridor may date from the sixteenth or seventeenth century, and appears to replace an earlier wing.

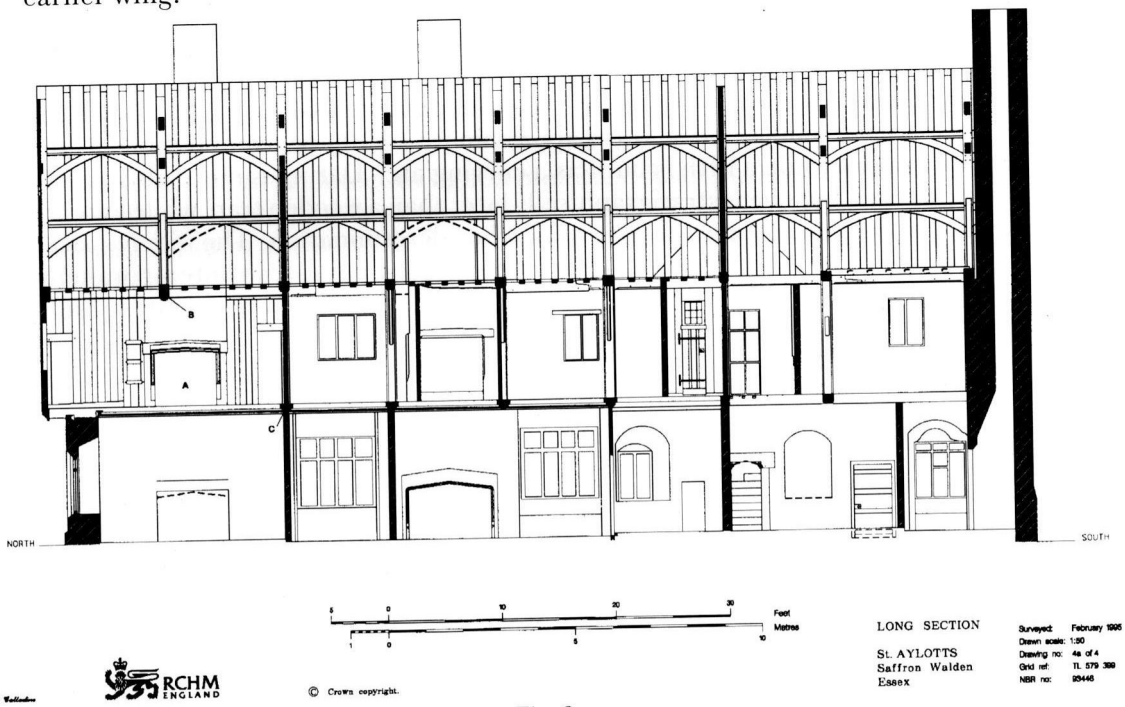

Fig. 2
St Aylotts, Saffron Walden, Essex
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FLINTSHIRE

Pentre, Gronant, Llanasa

Pentre is a stone-built, storeyed, former farmhouse in process of restoration. The three-unit lobby-entrance plan-type is characteristic of north-east and central Wales: parlour and hall lie on either side of the central chimney; beyond the hall is an inner service-room. The main elevation of Pentre is quite striking with an array of dressed-stone detail which, as in early houses, is not quite symmetrically arranged. The windows at ground-floor level are ovolo moulded; the first-floor has (less expensive) plain-chamfered windows. Set over the moulded doorway (hollow and ogee) is a recut date inscription of 1574. It is often difficult to decide whether a house of this type is an adapted medieval hall-house or a new-built storeyed house. In this case, however, a thorough investigation revealed no trace of medieval fabric. If the authenticity of the date inscription is accepted, Pentre is the earliest known dated example of a storeyed house of this plan-type in Wales (see Peter Smith, *Houses of the Welsh Countryside* (1978), pp. 161-3).

GLAMORGAN

Cog Farm, Sully

Cog Farm is an early nineteenth-century model farm designed for large-scale corn production and cattle rearing in the Vale of Glamorgan. A south-facing E-shaped range of open-fronted cattle-sheds ('hammels') with a central barn and feed preparation range defined two stock yards. A windmill, driving barn machinery, and large rick-stands were sited on the north side of the farmstead. An unusual feature of the farm lay in the use of cast iron for window- and door-frames and the roof-trusses. The use of cast iron for industrial roofs was pioneered in south Wales. Its presence in an agricultural context at Cog can be attributed to the family connection between Evan Thomas of Cog Farm and Sir Josiah John Guest of Dowlais, the iron-master. Cog Farm is to be converted into domestic units, but the roof-trusses are to be retained.

GLOUCESTERSHIRE

Pirton Court, Churchdown

Pirton Court comprises a farm complex of medieval origin which lies in the Vale of Gloucester, about 1.5km north east of the present boundary of the City of Gloucester. The principal building is a fifteenth century, two-storey, four-bay, double-pile, timber-framed house, which was formerly jettied at both ends. In the sixteenth century a single-pile, close-studded, timber-framed extension was added to the east end of the south range and the early range was underbuilt in stone. The south front of the adjoining fifteenth and sixteenth century ranges was rebuilt in brick in the seventeenth century. In the early nineteenth century a brick-built, single-bay, double-pile extension was added to the west end of the fifteenth century range. A further single-pile brick-built extension was added to the east end of the fifteenth century range, to the north of the sixteenth century range, in the late nineteenth century. The building immediately to the north of the principal range is probably seventeenth century in date and was originally timber-framed, but was largely rebuilt

in brick later in the seventeenth century. These two buildings stand on ground which is about 1.5m above the level of the remainder of the farmyard which lies to the north east. The farmyard complex includes a large timber-framed barn probably of seventeenth century date, several other smaller timber-framed farm buildings, including a foldyard possibly of eighteenth century date, together with farm buildings of the nineteenth and twentieth centuries. The complex once lay within a double moat which was probably infilled in the 1840s. It is reputed that cattle would have been driven onto the land between the inner and outer moats during times of civil disorder (the site is supposed to have been used by Royalist troops during the seige of Gloucester in 1643). The exact line of the double moat is now difficult to discern.

The complex is of particular interest because of the unusual double-pile plan form of the fifteenth century timber-framed farmhouse, a form more usually associated with urban buildings of the period, and because of the unusually ornate treatment of its east end, which has curved and diagonal bracing, as well as deep keel and hollow mouldings which are integral with many of the principal elements of the timber frame. The two main buildings also demonstrate the use of brick in the seventeenth century in Gloucestershire. The buildings were surveyed during extensive repairs carried out in 1995. This work revealed much of the original timber-framing which had previously not been visible.

HAMPSHIRE

The Limes, Micheldever

The Limes occupies a large plot apparently carved out of the north side of the churchyard of St Mary's Church, Micheldever, although there is no known association with the church. The house is set back from Church Street and faces east towards the road. The plan is H-shaped, with evidence that the central arm, aligned north-south, originated as a half-floored, timber-framed hall of late medieval date. The cross-wing at the south end has an unblackened medieval roof. The arrangement of the two hall bays suggests that the south cross-wing contained the services. The solar end does not survive but was replaced by a seventeenth-century small-framed cross-wing. The box-framed two-bay structure attached to the west of this cross-wing has a weathered east truss and not only predates the cross-wing but was evidently freestanding. It is interpreted provisionally as a detached kitchen. The walls of the central and southern parts of the house were rebuilt in brick in the late eighteenth or early nineteenth century but the medieval roofs survive largely intact.

A shop was added to the north cross-wing facing the street in the nineteenth century. A tiebeam bears the initials and date TM 1838 CW. Trading continued until *c.*1975. The faded shop sign is still in position above the shop door, naming the proprietor as W. Martin, Baker and Grocer. The steam baking oven, installed in the timber-framed part to the rear, was still intact at the time of the survey, but was due for removal. The name of the oven maker, T. Collins & Co., Bristol, is cast in the oven doors. Most of the shop shelves, with turned supports, were also still in position in 1995.

LONDON

Floor over the King's Library, British Museum, Great Russell Street, Camden

The King's Library in the British Museum, built in 1823-8 to designs by Sir Robert Smirke, has ceilings suspended from a floor that is itself of great interest (Fig.3). It was, when built, 'something of a revolution in metropolitan architecture' (*History of the King's Works* VI (1973), p.416), its construction representing an important phase in the spread and adaptation of structural iron. Clear spans of up to 13.5m were created through the use of enormous cast-iron beams. These beams are linked by wrought-iron fireplates to create a 'fireproof' iron layer. The wider central section of the floor has cast-iron arch girders supporting the beam ends and transferring the weight of the floor onto granite columns. The iron used in this floor was supplied in 1824 by Foster, Raistrick and Company of Stourbridge.

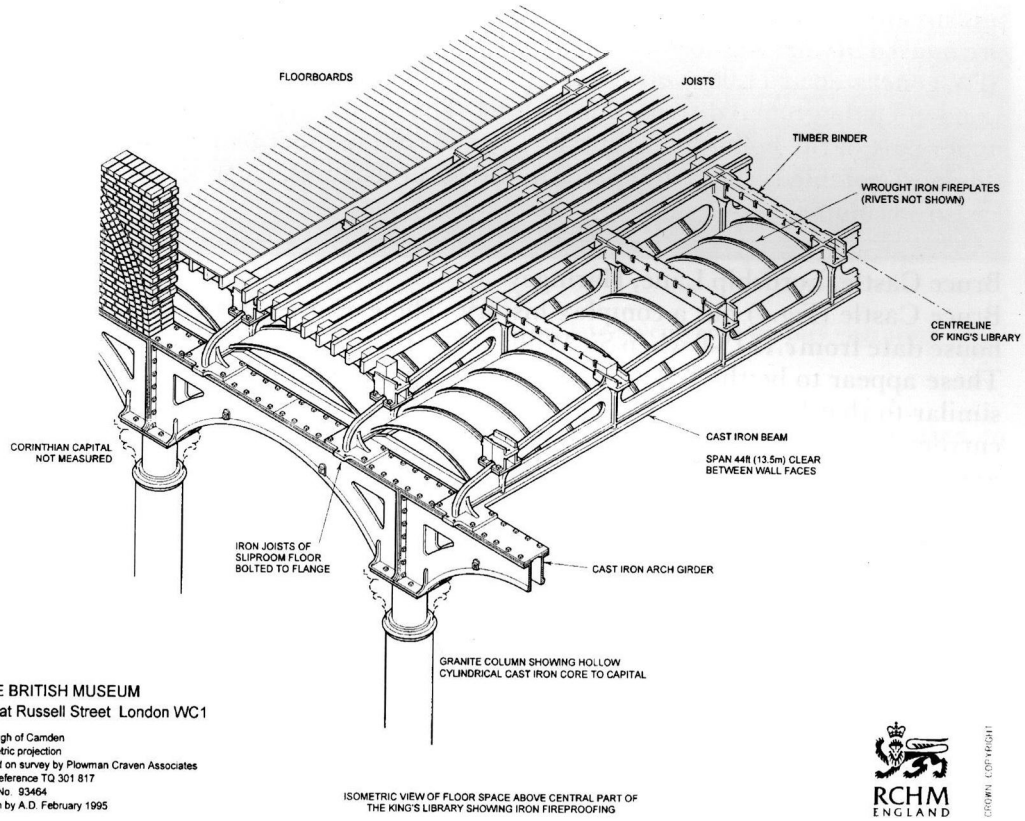

Fig. 3
Floor above the King's Library, The British Museum, Great Russell Street, Camden, London
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Greenwich Generating Station, Old Woolwich Road, Greenwich

Greenwich Generating Station was built in 1902-10 for the London County Council to provide electric power for the capital's tramways. A powerful manifestation of early L.C.C. municipal pride, it continues in use as a back-up electricity source for London's underground railways. The station is one of few early power stations to continue in operation. It is also notable as an early example of a steel-framed building in Britain and, in its stone-dressed stock-brick skin, it has considerable architectural distinction. This quality is most evident in the north and south gable-end elevations and in the stone detailing. There are four chimneys; the pair to the north were once taller and ornamentally detailed. Originally coal-fired, the station generated current at 6,600 volts with a capacity of 34 MW when complete. Its first section, opened in 1906, incorporated a late example of the use of reciprocating steam engines; thereafter steam turbines were installed. All early plant has been removed and since 1972 the station has been equipped with eight gas-turbine alternators, originally burning oil, but later converted to oil/gas dual-firing. These are housed in what was formerly the boiler house, and have a total capacity of 117.6 MW, generated at 11,000 volts but stepped up to 22,000 volts for connection to the London Underground distribution system. The massive coal bunkers forming the upper part of the boiler house survive. Amongst a number of ancillary structures the most notable is the coaling pier in the River Thames which stands on sixteen cast-iron columns.

Bruce Castle, Lordship Lane, Haringey

Bruce Castle (Fig.4) has a complex history. The earliest parts of this substantial house date from *c.*1515-6 when Sir William Compton took possession of the manor. These appear to be the fragmentary remains of a courtyard house, once possibly similar to that built by Sir William at Compton Wynyates in Warwickshire. The current building is the product of this and many subsequent phases of building, most obviously *c.*1578, *c.*1684, an extended period in the early years of the eighteenth century, and the mid/late nineteenth century. Since 1892 the building has been in the ownership of the local authority (at that time Tottenham Urban District Council). Major refurbishment works were undertaken by the council in the 1960s. It is currently used as offices, a museum, and a local history library by the London Borough of Haringey.

The principal, southern range, all that survives from the early sixteenth century, was probably the original gatehouse range of the courtyard house. Its south front is of red brick with stone dressings, and though very much patched some early Tudor brickwork survives. This front is symmetrical, with two half-octagon projections flanking the central entrance porch. It seems to have been rebuilt to become the principal house in the later sixteenth century (when documents suggest that work was being undertaken) or early in the seventeenth. It is not known when the greater part of the house to the north was demolished, but it had certainly disappeared by the late seventeenth century. In 1682-4 the turret projections were raised and a tower built above the porch, and the interior probably remodelled.

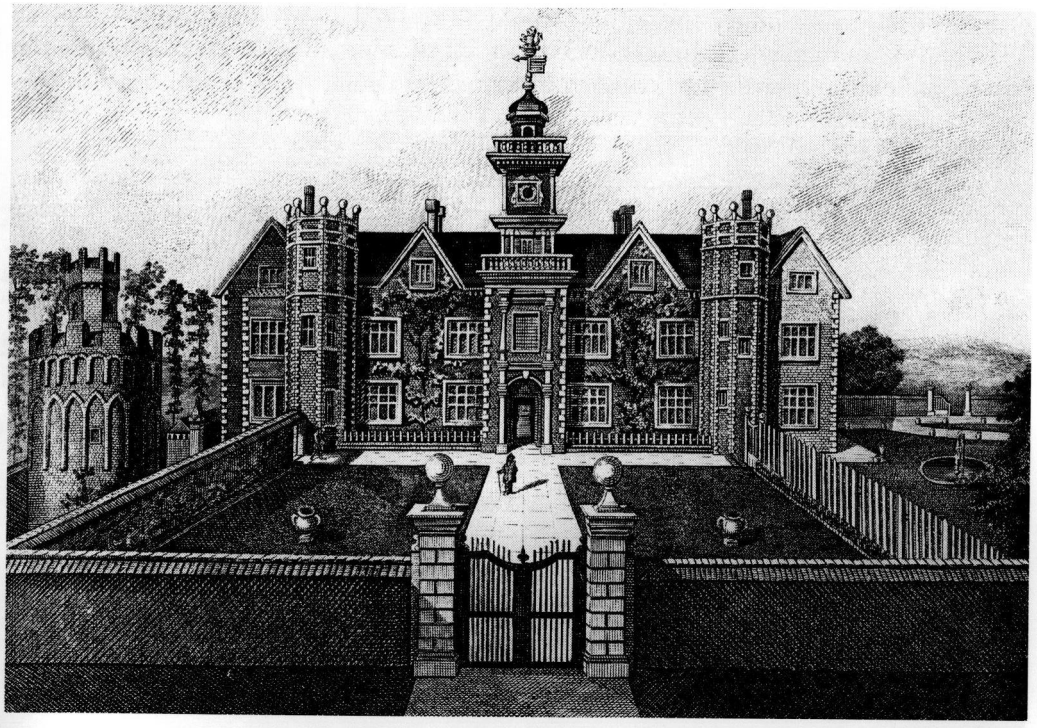

Fig. 4
Bruce Castle, Lordship Lane, Haringey, London; late-seventeenth century engraving
London Borough of Haringey

Early in the eighteenth century the house was enlarged, in two or more phases, to the east and north, the latter range having an impressive pedimented elevation; further internal work was carried out later in the eighteenth century, and also in the nineteenth and twentieth centuries. The outer parts of the surviving building appear to have been substantially rebuilt and refaced in the very early eighteenth century. The east wing is a restrained Georgian arrangement in plum-coloured brick. To the north west of the central section a school extension was built *c.*1860 whilst the house was occupied by Rowland Hill's progressive school.

A detached circular tower standing to the south-west of the house probably was built *c.*1514-6, possibly as a belvedere banqueting house.

Thames Tunnel, Wapping to Rotherhithe, Tower Hamlets/Southwark
As the first underwater tunnel to be constructed through soft ground, this is a structure of international importance and perhaps the most significant nineteenth-century civil engineering work in Great Britain. Following unsuccessful attempts by others in the first decade of the century, the engineer Sir Marc Isambard Brunel assisted by his son, Isambard Kingdom Brunel, began work in 1825. Brunel senior

employed a revolutionary tunnelling shield made to his own designs, patented in 1818. After numerous technical and financial problems had been overcome, the tunnel opened to pedestrians on 26th March 1843.

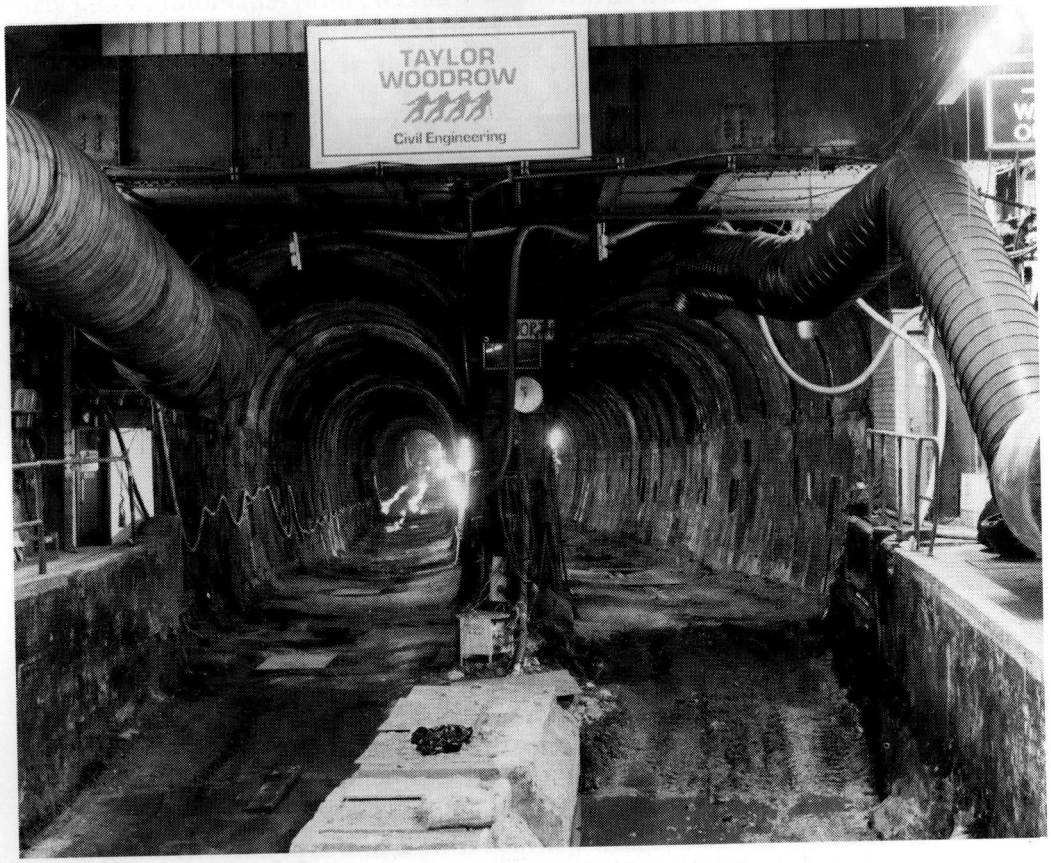

Fig. 5
The Thames Tunnel, London, photographed in August 1995
after the removal of the track and ballast
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The tunnel consists of two parallel vaults of horseshoe section (Fig.5). It is 365m long, built of brick bedded in Roman cement and faced with clay tiles and stucco. An arcade of round-headed arches on Greek Doric half-columns separates the two footways, each 4.8m high by 4.2m wide, joined at intervals by cross arches. At each end are access shafts, 15m across. It remained a foot tunnel until 1865-9, when it was converted for the East London Railway. Subsequently, it has been used by electric underground trains on the East London Line. Proposals by London Underground in 1995 to strengthen the tunnel by encasing the interior in concrete met with fierce opposition and the tunnel was spot-listed. Exploratory work on the

structure permitted detailed recording work which has revealed the nature of the brickwork and its 'dentillation' to allow water seepage to drain down behind the tile facings into culverts below floor level, and a puzzling discrepancy in the floors, where there seems not to be an invert on the west side (Fig.6). Continuing work might reveal irregularities in the brickwork relating to the realignment of the tunnelling shield, alterations in the tunnelling method, and the sites of several inundations during construction.

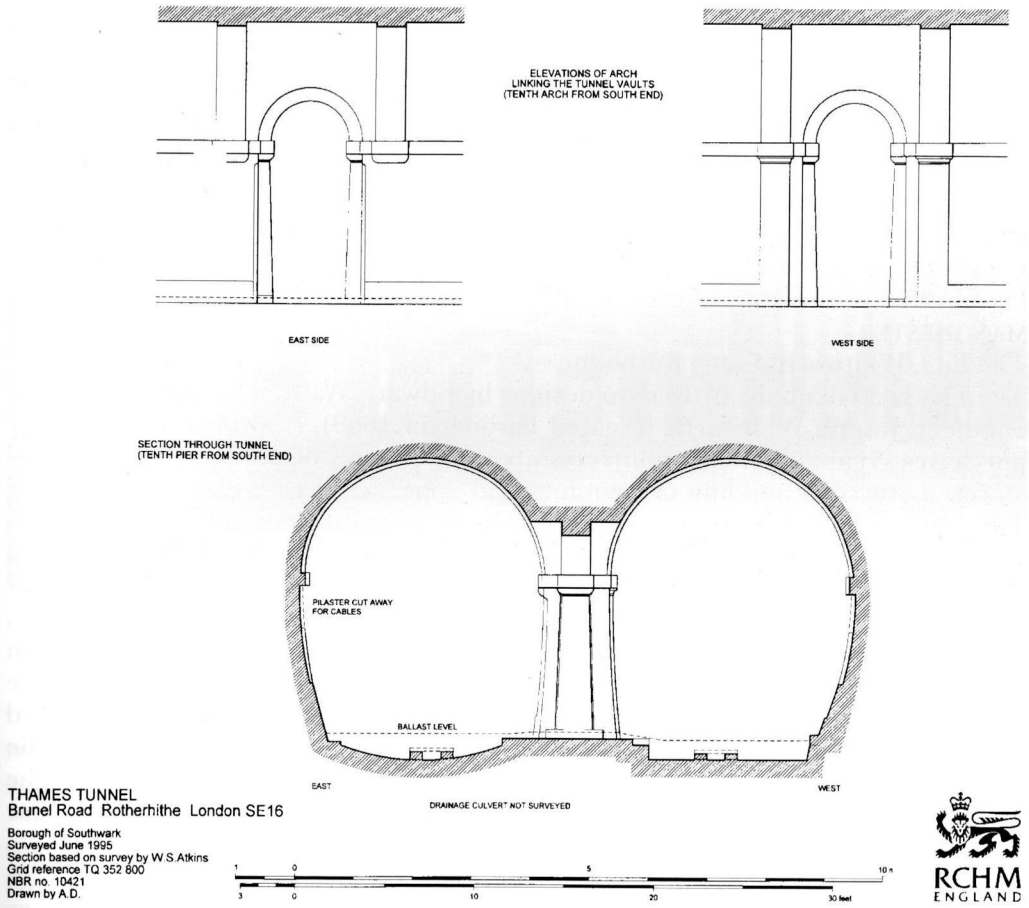

Fig. 6
The Thames Tunnel, London
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No. 7 (formerly Nos. 6 & 7) Old Palace Yard, Westminster

This pair of houses was built in 1754-6 by the Office of Works as the official accommodation of the Clerk of the Parliaments and the Clerk Assistant. The designer is unknown, although it has been variously attributed to Isaac Ware and John Vardy. It has three storeys with basement and attics. A range to the south was

demolished in the twentieth century. The principal elevation, a unified Palladian composition in Portland stone, has a pedimented entrance bay, rusticated to the ground floor. The other elevations are of stock brick, rendered on the east side. It was apparently built with a symmetrical plan to the ground floor, interlocking to the basement and upper floors. The western house retains much of its original layout and decoration but has undergone several phases of piecemeal alterations. The basement, ground and first floors of the eastern house were reordered and upgraded in the late-eighteenth century under the direction of Sir John Soane. The Clerks presided over the Parliament Office, housed initially in the former Jewel Tower to the southwest. This was accessible both internally, through the demolished south range, and by means of a vaulted ground floor passageway. Following the conversion of a house in Abingdon Street to the south in the late-eighteenth century, the passage was moved to the basement of the Clerk's house. From the late-nineteenth century the houses have been occupied by various Government offices and have been converted into a single building. The building underwent a full refurbishment in 1994 which permitted this reassessment.

MANCHESTER

The Firs, Whitworth Lane, Rusholme

The Firs is a villa built in 1851 to designs by Edward Walters for the mechanical engineer, Joseph Whitworth (created baronet in 1869), who by a succession of purchases created a small country estate. The house, of modest size, is a two-storeyed stuccoed building of asymmetrical appearance with classical detailing. The main entrance is from the north, into a spacious entrance and stairhall with a suite of south-facing reception rooms on the ground floor and family bedrooms and dressing rooms on the first floor. Servants' bedrooms were on the second floor, at the service end of the building. Surviving original interior fittings include doors, chimneypieces, enriched cornices and an elaborate main staircase with a cast-iron balustrade. Contemporary buildings include a two-storeyed gate lodge and a service yard, east of the house, with stable and coach house, and outbuildings associated with the maintenance of the gardens and grounds. Additions were made to the service quarters before 1881 when the house was let to C.P. Scott, editor of the *Manchester Guardian*, who remained its tenant until his death in 1932. The house then passed to what became the University of Manchester.

MERSEYSIDE

Nos. 103-117 Shaw Street, Everton, Liverpool

A derelict terrace of large houses (Fig.7), built between 1826 and 1836, comprises the earliest phase of development on the Shaw estate at Everton. It was part of a failed attempt to create an exclusive suburb in the area by the landowner John Shaw, and a financier, John Whitley, and included the houses of Whitley himself, as well as members of Shaw's family. These houses, which were probably amongst the largest terraced houses surviving outside London, retained behind their restrained classical façades, original stencilled wall decoration and plasterwork, as well as

Fig. 7
Shaw Street, Everton, Liverpool
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remarkably intact services. They illustrate a conservative building tradition already superseded, for houses of the upper-middle class at that date, by the villa.

WEST MIDLANDS

Former Brass Foundry, No. 7 School Street, Wolverhampton

The former brass foundry is located near the centre of Wolverhampton, an area which contained numerous metal-working factories in the nineteenth century. It comprises a complex of relatively small buildings built in several phases in the late nineteenth and early twentieth centuries. The development of the site included the demolition and rebuilding of some earlier foundry buildings and the conversion of other buildings from domestic to industrial and commercial use. All the extant structures are of different dates. The front of the site consists of a three-storeyed main building of eleven window bays with an attached two-storeyed building to the south of two bays. This continues to the rear as a two-storeyed workshop. To the

rear of the main block is a single-storeyed shed, beyond which is an adjoining two storeyed building of four bays. Perhaps the most significant feature of the site is the survival intact of a full complement of metal-working machinery with associated line shafting, tools and fittings in the upper two storeys of the main block. These workshops appear to have been abandoned in the mid-twentieth century and then left completely untouched. Most of the equipment appears to be of early twentieth or late nineteenth century date. Its survival is probably related to the continued ownership of the site by the original occupiers, William Evans and Co. Also of interest is the piecemeal extension of the site and the development from domestic to industrial and commercial functions, both of which are characteristic features of the west midlands metal industries in the nineteenth century.

NORFOLK

St Benet's Abbey, Holm, Horning

The Benedictine abbey of St Benet's at Holm, situated by the River Bure, was founded by King Cnut *c.*1020. Although the abbey was the only religious house in the country not to be dissolved by Henry VIII, the site was abandoned about 1540 and exploited for building materials. The ruins of the fourteenth-century church and gatehouse are all that remain of the monastic buildings. The gatehouse has been reduced to a shell, within which a windmill was erected in the eighteenth century. While the side walls are of red brick, the east and west façades are faced in ashlar with knapped flint flushwork and include stone relief carvings. The west façade is flanked by octagonal turrets, the east by diagonal buttresses. The upper floor of the gatehouse probably was demolished when the windmill was erected, straddling its west wall. The mill, which provided power for a drainage pump, is shown in early photographs complete with cap and sails. Today, only the outer walls survive (Fig.8). The ruins have become famous as a favourite subject of the Norwich school of watercolourists in the eighteenth and nineteenth centuries.

NORTHUMBERLAND

The Mausoleum and Ha-Ha, Seaton Delaval Hall, Seaton Delaval

The Mausoleum was built by Sir John Hussey Delaval *c.*1775. The architect is unknown. It is surrounded by a circular ha-ha and was originally reached via a bridge crossing the ditch on the west side. The building, in the Roman Doric style, consists of a tall single storey (fenestrated as two storeys) over a vaulted crypt. It is constructed of sandstone ashlar and formerly had lead roofs. The plan is cruciform, with a longer north-south axis, a tetrastyle portico on the west side and a semi-circular apse incorporating a Venetian window on the east. The crossing rises above the rest of the building as a low tower and originally had a domed roof. The ground floor originally consisted of a single unheated space, and was intended to serve as a chapel. Access to the crypt was via a doorway at the base of the apse, opening onto an entrance passage. In the crypt there are barrel vaults extending north, south, east and west of a groined crossing. At the ends of the vaults (or, in the case of the east vault, either side of the passage) are stone racks for the storage of coffins. An

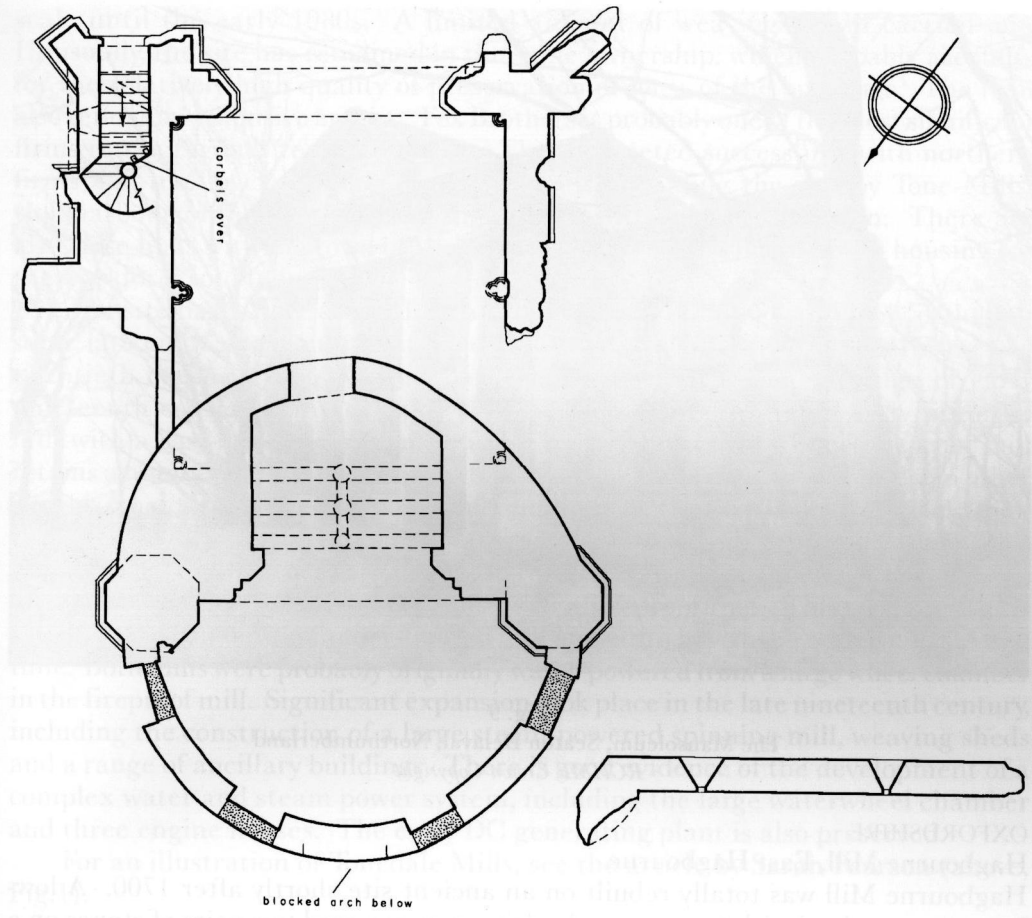

Fig. 8
Gatehouse of St Benet's Abbey, Holm, Horning, Norfolk
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original hatch in the crown of the vault over the entrance passage may have been to allow coffins to be lowered from the ground floor.

According to tradition the Mausoleum was never consecrated and therefore never used for its intended function. No evidence has been found for an early adaptation to another use. Probably around 1900 the Mausoleum was converted into a house by the insertion of brick partitions and three ground-floor fireplaces. A first floor and staircase were also inserted. By about 1950 the building was derelict and it is now roofless (Fig.9).

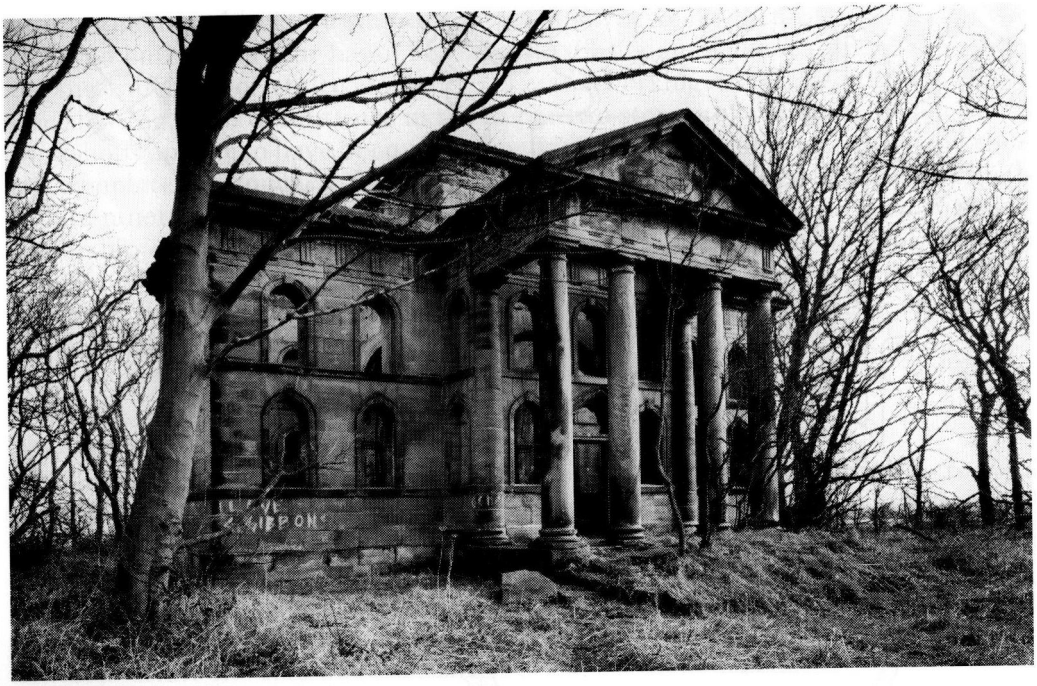

Fig. 9
The Mausoleum, Seaton Delaval, Northumberland
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OXFORDSHIRE
Hagbourne Mill, East Hagbourne
Hagbourne Mill was totally rebuilt on an ancient site shortly after 1700. A low-breast waterwheel with two-step underdrive gear powered two pairs of stones on a free-standing hurst frame. In or about 1828 the mill was refloored, regeared and modified. At the time, or shortly afterwards, the waterwheel was replaced by a breast-shot wheel of smaller diameter, and a third pair of stones was added. Eventually, probably towards the end of the nineteenth century the present iron waterwheel was installed. The mill is complete with all its machinery and equipment and shows a particularly good evolutionary sequence, although its condition is deteriorating. It incorporates the timber framing of the earlier building, with an unusual extension for farm machinery and waggons. The moulded and decorated hurst frame of the second decade of the eighteenth century has survived, and is of national significance.

SOMERSET
Tonedale Mills, Wellington
Tonedale Mills may be the largest integrated woollen mill complex in the south-west region. The Fox family started production here in 1790, continuing on a large

scale until the early 1980s. A limited amount of weaving is still carried out. Unusually, the site has remained in the same ownership, which probably accounts for the relatively high quality of preservation of most of the buildings. The firm also retains an extensive archive. Fox Brothers is probably one of the most significant firms in the region's textile industry. They competed successfully with northern firms and took over a number of other mills, including the nearby Tone Mills, Coldharbour Mill, Uffculme, and Bliss Tweed Mill, Chipping Norton. There are also close links with the town of Wellington, Fox Brothers having built housing for the workforce and founding the local bank.

The site has a wide chronological range of mill buildings, probably including some late eighteenth century structures, but mostly of early nineteenth to early twentieth century date. Of particular interest is an L-shaped range of early nineteenth century spinning mills and warehouses, including an early fireproof mill with a cast-iron roof and an unusual type of floor beam. The fireproof mill retains a number of features which differ from those at contemporary mills in other regions, such as the type of floor beam and the fenestration of the front elevation. It appears to be a partial rebuilding of an earlier mill, possibly the building which is known to have suffered a serious fire in 1821. The walls of the fire-damaged mill were lowered and given fireproof floors and a fireproof roof. The north end stair tower and the adjoining timber-floored mill appear to have been added at the same time. Both mills were probably originally water-powered from a large wheel chamber in the fireproof mill. Significant expansion took place in the late nineteenth century, including the construction of a large steam-powered spinning mill, weaving sheds and a range of ancillary buildings. There is good evidence of the development of a complex water and steam power system, including the large waterwheel chamber and three engine houses. The early DC generating plant is also preserved.

For an illustration of Tonedale Mills, see the article by Sarah Pearson (above, Fig.1).

SURREY

Woking Crematorium and Columbarium, Hermitage Road, Woking

Woking Crematorium was the first in which cremation became publicly available in Great Britain. The first crematorium on the site was constructed in early 1879. The extent to which this building survives is unclear because of later alterations and additions. The original building contained a coke-fired cremation furnace designed by Gorini and was paid for by the subscription of members of the Cremation Society, which had been founded in 1874 by Sir Henry Thompson, physician to Queen Victoria. The building was at first used for experimentation with the cremation of animal remains, as human cremation was illegal. The first human cremation to take place at Woking was that of Mrs Jeannette Pickersgill, a member of the Cremation Society, on 26th March 1885. By 1900, 1,824 cremations had taken place, mostly of members of the aristocracy. Human cremation was not recognised by Act of Parliament until 1902, several decades after it had become legal in France, Italy, Germany and America.

The crematorium was probably substantially rebuilt *c.*1889, when a chapel was added to its north side. The chapel, designed by E.F.C. Clarke, is built from brick in Gothic style. Like the crematorium it was paid for by subscriptions from members of the Cremation Society. The principal feature of the chapel is a marble and brass catafalque which was provided in 1903 by Rosemary Crawshay of Cyfarthfa, as a memorial to her son Richard Frederick Crawshay. The largest part of the cost of the chapel was met by Francis Charles Hastings Russell, ninth Duke of Bedford, who by 1890 had also built a private crematorium and chapel to the south of the principal crematorium. He was cremated there in January 1891. In the same year a small area of ground to the south of the main buildings was set aside for the internment of ashes, each internment being marked by a miniature headstone. Sometime between 1910 and 1926, the Duke of Bedford's crematorium/chapel was raised in height and given a hipped roof, when it was adapted to its present use as a columbarium. A superintendent's lodge was built beside the entrance to the grounds in about 1900. 'Cloisters' for the display of memorial plaques and a cenotaph were built to the west of the crematorium and chapel in 1930. A further 'cloister', designed by Thomas Graveley Angell, was built to the north-east of the chapel in 1940. A tent-like chapel of remembrance was constructed in the grounds in 1966.

None of the early British crematoria is in the same architectural league as the early crematoria in France and Italy. This may reflect the fact that cremation was slow to be accepted in this country. The finest early British crematorium is probably Golders Green, London built in 1902. Other early crematoria include Manchester (1892), Glasgow (1896), Liverpool (1896), Hull (1901), Darlington (1901), Leicester (1902), Birmingham (1903), Bradford (1905) and Sheffield (1905). Many early crematoria were disguised to look like churches, with flues designed to resemble bell towers.

WEST SUSSEX

Neolithic Flint Mines, Harrow Hill, Angmering

The striking hilltop landscape of Harrow Hill is dominated by the remains of dozens of Neolithic flint mining shafts. Several phases of activity are discernible, associated with a variety of different shaft types as well as working areas and spoil heaps. The survey also recorded the Late Bronze Age or Early Iron Age rectangular enclosure which partly overlies the remains of the mining activity. The area has been surveyed in detail as part of a programme to record industry and enclosure in the Neolithic period.

TYRONE

Copney Stone Circle Complex, Townland-Copney

The complex of stone circles on the northern slope of Copney Hill in mid-County Tyrone is one of a number of such Bronze Age ritual monuments in this area, belonging to the so-called Mid-Ulster group. The complex is aligned on a NW-SE axis and extends for approximately 180m down the slope from its western limit

just below a level terrace. The site is mostly covered by blanket bog of varying depths, much of the bog having been cut away in the past. There are thought to be eight circles in all, with a possible arc of a ninth, a double-rowed alignment, a cairn and a standing stone. Three large circles at the western limit of the site were the focus of bog-clearance work in the autumn of 1994 with a view to revealing fully the extent of these circles and opening this State Care site to the public. The clearance work revealed dense and complex arrangements of stones inside the perimeters of the three circles. In all three circles there is a low, central cairn with a cist-like central opening and displaced capstones which suggest that the burials were disturbed sometime after a shallow cover of blanket bog had developed. In the westernmost circle stones are arranged around the central cairn and though in places no pattern to the setting of the stones is evident, several radial lines and arcs are clear. In the other two circles the stones are mostly arranged concentrically around the central cairn though this pattern is sometimes blurred by the fact that stones have toppled over or are leaning away from their original upright position. In September 1995 a subsequent detailed survey and recording programme was carried out. This work entailed drawing the cleared part of the three circles at 1:20 scale and compiling a database of individual stone descriptions. This database contains information on the condition of the stones such as stability in the ground, weathering and whether a stone may require consolidation, and will become the central tool for an extended period of monitoring the condition of the stones.

NORTH YORKSHIRE

The Old Vicarage, Chapel Street, Tadcaster

This is a priest's house, dated to 1474 by dendrochronology. It is of magnesian limestone construction with timber-framed partitions and has a hall and cross-wing plan with a service end below a cross-passage. The cross-wing comprised a ground-floor parlour and first-floor solar, both with original fireplaces. The service end incorporated a storeyed bay adjacent to the cross-passage and consisting of a single chamber over two small rooms and a central axial passage leading to the kitchen, which was open to the roof. The form of the original fenestration, though mutilated by later alterations, is largely recoverable from the surviving fragments. The original roof trusses survive virtually complete and their variety reflects variations in the status of the rooms. The open trusses over the solar and hall are of arch-braced collar form; the dais and lower-end trusses of the hall are of truncated principal rafter form; and the truss dividing the kitchen from the other service bay is of strutted principal form.

SOUTH YORKSHIRE

Sheaf Works, Maltravers Street, Sheffield

Sheaf Works was built *c.*1825 as an integrated steel and cutlery works, producing its own steel and manufacturing finished cutlery and other edge tools. It was sited next to the Sheffield and Tinsley Canal, opened in 1819, to allow easy transport of bulk materials such as iron and coal. The works is said to have been the first to

have relied exclusively on steam power for manufacturing steel products. The site was an extensive one as early as 1832, and later expanded onto the opposite bank of the canal. The main manufacturing buildings of the first complex have been demolished, and this loss reduces the significance of the remaining elements of the works. The principal surviving buildings, at the south-west end of the site, include a four-storey office and finishing building, a small three-storey workshop range, and a gatelodge. The office and finishing building is a conspicuous edifice, resembling a classical country house, and gave an imposing frontage to the works, similar to that provided in other contemporary steelworks in Sheffield. The offices occupied much of the ground floor and part of the upper floors, and the remainder of the building was probably used for storage and unpowered processing, perhaps connected mainly with the finishing of manufactured goods. The small workshop range is a significant survival; its generous provision of light on three floors suggests that detailed and skilled work was undertaken there. In the central part of the site are remains of a beam-engine house, probably dating from the first development of the works, and a brick chimney, dated 1871.

WEST YORKSHIRE

Whitwood Mere Infants' School, Methley Road, Castleford

This school was built in 1939-40 to the designs of Oliver Hill, for the West Riding County Council. The Modernist design incorporates all the technical and educational philosophies of the time. The single-level plan makes the best use of the site by orientating the classrooms to the south, where they gain maximum light from full-width windows. A central corridor runs east to west through the school separating the classrooms from the more functional rooms: the assembly hall, lavatories, cloakrooms, staff room and medical room. At the east end a self-contained nursery school was provided. Hill's intention with this school was to provide a pleasant environment to stimulate learning (Fig.10).

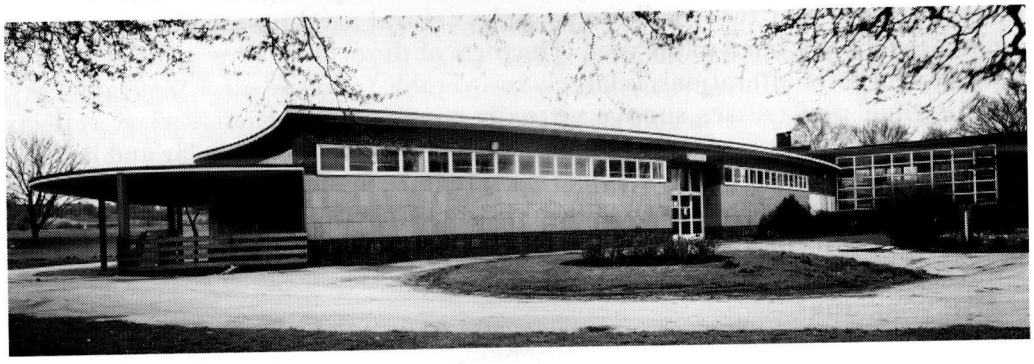

Fig. 10
Whitwood Mere Infants' School, Methley Road, Castleford, West Yorkshire
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