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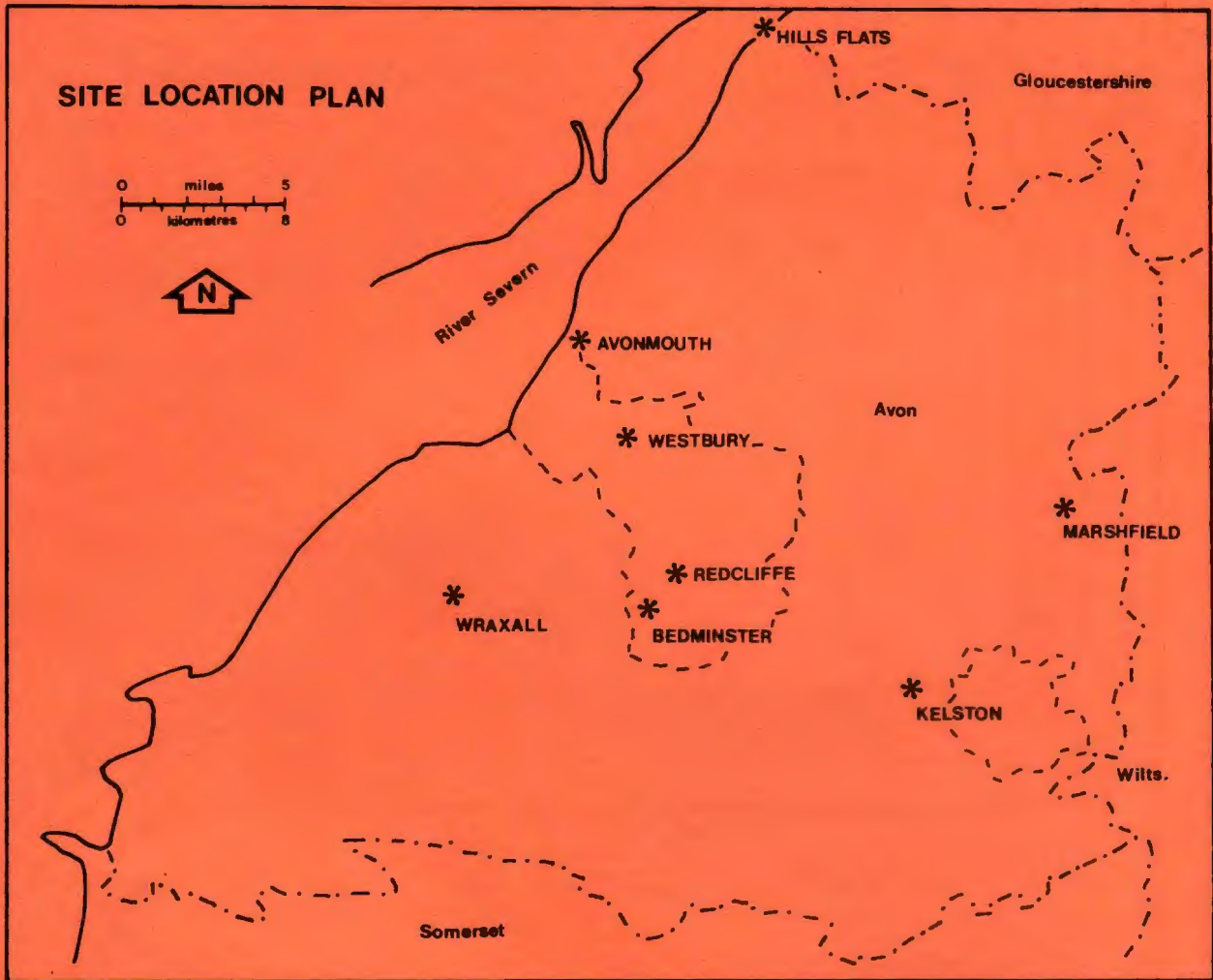
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Further copies of this Review can be obtained from the Secretary at the above address.

Editorial communications should be addressed to:
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REVIEW NUMBER TWO 1981

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COVER DESIGN

This incorporates a silhouette of a German Heinkel bomber, which was shot down by and depicted on the wall of an anti-aircraft gun battery at Portbury (see p 64). The BARG motif, in the top left hand corner, is from a Celtic scroll pattern on a glass stud found in excavations at Westbury College, Bristol.

THE SCOPE OF INDUSTRIAL HOUSING IN AVON

Christopher Powell

The following is an edited version of a paper given by the author at the BARG Symposium 'Recent work on vernacular buildings in the Bristol region' held on September 27th 1980.

Industrial housing in Avon remains largely an unknown quantity, not to say an unloved one. The field is wide and complex and research is still fairly rudimentary. Once-commonplace forms of house building cannot yet with confidence be distinguished from exceptional forms, nor patterns of development clearly be seen. This provisional survey attempts to be descriptive rather than analytical, and seeks breadth of coverage more than depth.

The subject is defined here as the stock of dwellings occupied by members of the industrial working class of Avon a century ago, excluding buildings put up before the industrial period. The year 1880 is chosen because it was then that the 1875 Public Health Act was beginning to accelerate further the decline of local traits in new housing, bringing the vernacular to an end. Also, 1880 was a time when most of the houses put up since the onset of the industrial period still survived.

A regional housing stock is an unwieldy thing to describe, but one way of doing so is to divide it into parts and look at each in turn. Even the worst system of classification is probably better than none, but (after Dr Johnson) even the best cannot be expected to go true. Here, four more-or-less distinctive parts of the stock are considered, based loosely on density, location, sponsorship and age. Some houses in one class may have resembled those in another, although generally the differences outweighed the similarities.

Rookeries

The first class of houses to be considered is the rookeries, which OED defines as crowded clusters of mean houses or tenements. By the 18th century these abounded, causing Defoe to note of Bristol that 'there is hardly room to set another house in it, 'tis so close built'. Evidently he reckoned without the ingenuity and determination of lesser Georgian and early Victorian builders, who continued to insinuate new houses into almost unimaginably tight spaces. An official Commission(1) recorded laconically in 1889 that in densely packed Bristol housing 'privies actually exist in living rooms...'. In more than one sense, it seems, the rookeries were an attempt to get a quart into a pint pot.

Many, perhaps most, of the courts and alleys which arose when small houses were packed into confined spaces, contained buildings of pre-industrial origins. However, many courts appear to have occupied former back gardens of existing street frontage buildings, implying that such court housing was newer than the buildings which surrounded it. Buildings of the industrial period were jumbled densely and inextricably together with earlier ones. This sort of infilling was a common response to the heavy demand for shelter which accompanied population growth and movement. The people occupying the courts were the poorest, many of whom needed to live within easy walking distance of work, concentrated near the docks. Here was strong incentive for high density housing, partly of mean new buildings and partly of split-up old houses fallen on hard times.

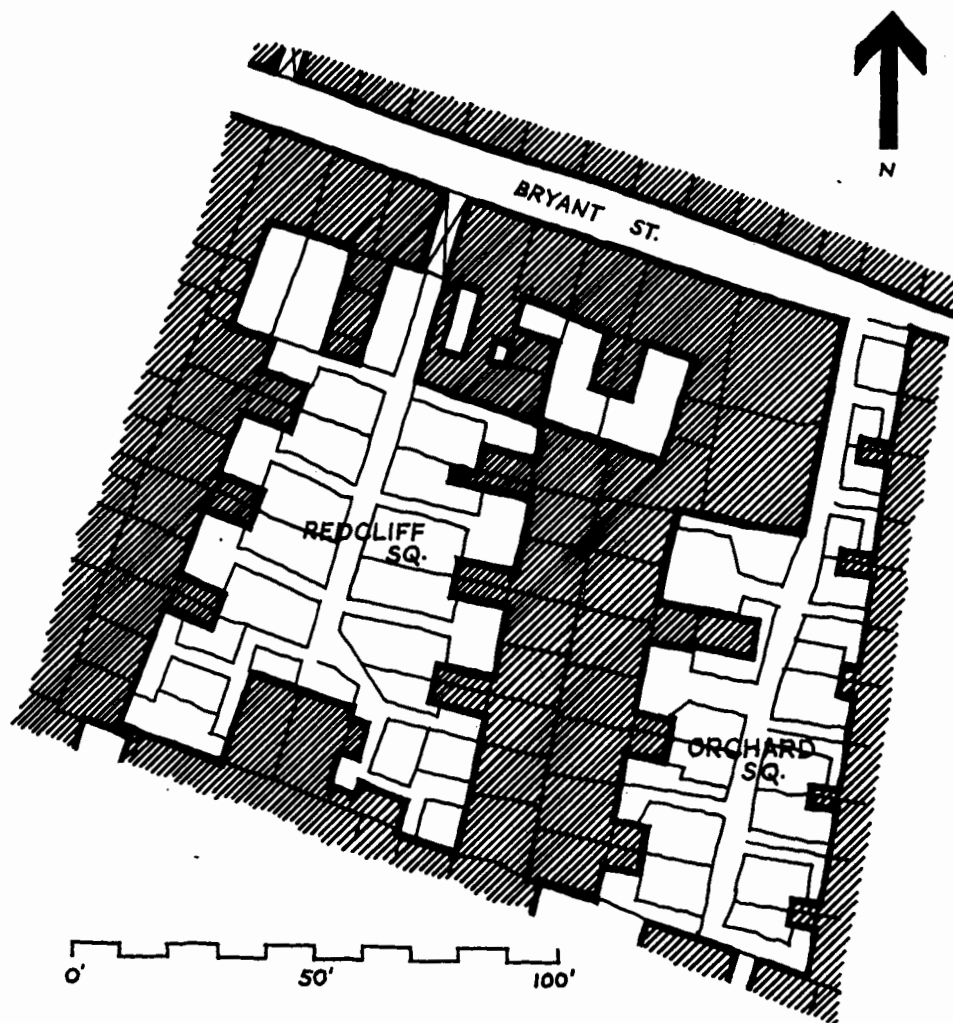


Fig 1 Redcliff Rookeries. Back-to-backs in Redcliff Square reached through passage from Bryant Street. Small projections on house fronts probably wash houses and lavatories, perhaps added during rehabilitation c 1880. Based on Ordnance Survey 1883.

The creation of rookeries by piecemeal addition and adaptation appears to have flourished until it was outlawed by local building by-laws, in turn a sign of public concern with fire and sanitary risks. The introduction and consolidation of building by-laws remains a difficult and somewhat neglected subject(2), to modern historians no less than to the contemporaries of the rookeries. Nevertheless, early by-laws appear to have been quite advanced in Bristol, compared with many other places. Measures taken in 1788, 1840 and 1847, together with only relatively moderate 19th century urban growth, spared the city many of the worst conditions once found elsewhere, particularly in northern industrial boom towns. Yet the price of comparatively high quality low-cost housing in Bristol by the later 19th century had been paid in the form of poor conditions in the preceding century. By-law control of new building seems to have come early to Bristol because the rookeries were so bad, so early.

By 1880 some of the worst rookeries, presumably those having the largest proportions of oldest, pre-industrial, housing, already had been cleared. Some off Bryant Street, Redcliff, had just been rehabilitated by the vestry (fig 1). Others again survived untouched, for example in East Street, Bedminster; The Dings, St Philips; and in a great mass stretching from north of Old Market, south to Cheese Lane and the river.

A typical court was entered from the street through a covered passage seldom more than 1.5m wide, and often less. Some courts had two entrances, one on each side of the street block, but others were far more tortuous and warren-like. Court size and shape varied enormously from small, quite formal,

squares to more elongated alleys. One formal example was Albert Square, St Philips, which had 12 three-storey dwellings arranged symmetrically around a yard about 13m x 10m and dating, it is believed, from some time before 1780. On the other hand there were the likes of Zion Court, off Thomas Street, Redcliff, which probably had ten dwellings ranged along an alley 54m x 1.5m, and included a passage over 16m long. Some courts appear to have been more-or-less planned, rectilinear, developments of whole plots, carried out in one phase, or nearly so. Others look like haphazard accumulations of dwellings made over extended periods.

Dwelling plans typically measured about 3.6m x 3.6m(3), with few as small as some in Cross Court, Old Bread Street, which were only 3m x 3m. Many court dwellings were back-to-backs (ie party walls on three of the four perimeter walls), some being added up against existing properties. Others, but not a large number, appear to have been built complete at the outset as back-to-back blocks, being symmetrical about a spine party wall, as was common in the midlands and north. 12 houses of this type, six called Caroline Place, backing on to the others called Eliza Place, were built in The Dings between 1815 and 1826. Their comparative rarity in Bristol was a benefit from the sanitary viewpoint, but since alternative forms cost more to build, rents presumably suffered accordingly. It is surmised that some, probably many, court dwellings which were not back-to-backs were blind backs (ie without door or window on rear wall). On rural sites blind backs were not unusual, probably until sometime before the mid-19th century, and they would have suited well the tight physical constraints of the rookeries. At least some court dwellings were three storeys high, giving three main rooms, one over another. In some cases there was a second, smaller, ground floor room projecting at the rear, across the full width of the house. Sometimes cellars were provided, although their abuse as living accommodation seems not to have been so widespread as it was in the rival port of Liverpool. Building materials, if St Philips was typical, were brickwork, often rendered (latterly, at least), occasionally mixed with stone, and with pantiled roofs(4).

Proto-Suburbs

The second class of housing to be considered was found in the comparative spaciousness of the coalfield, in 1880 worked over much of Avon. Here a markedly different form of development suggests the inelegant term proto-suburb. It consisted of loose scatters of small blocks of small houses which appeared wherever demand arose. It was not only the mining industry which created demand which was met in this way, although mining did lead to some of the most prominent examples of housing. Demand for new housing, which followed new jobs, was met either by provision on new sites where land could be found, or by adding to existing nucleated settlements, if any happened to be near enough. It is likely that cottages built early in the industrial period were similar to, if not indistinguishable from, those of agricultural labourers. After about the mid-19th century new provision seems increasingly to have resembled urban forms to be considered below.

Many of the places in which the characteristic straggles of small cottages arose are engulfed today in modern development. They include parts of Coalpit Heath, Oldland, Warmley and Yate. Apparently sporadic building activity led to formless jumbles of cottages, for instance at The British, a backland cul-de-sac near Engine Common, Yate (ST 699838). Elsewhere, buildings were often more widely spaced, although still on different alignments to one another. Some cottages were two-storey, four room, wide frontage types, either with blind backs or single-storey, lean-to, back projections. Narrow frontage examples also appeared and there were a few single-storey ones which recalled provision in some other coalfields. Single cottages commonly had similar buildings added at a later date at the side, making semi-detached or short, irregular terraces. Some additions were positioned at right angles to the first cottages to be built, making small, tight clusters of buildings as, for

example, in the vicinity of Oldland Common. Straight joints between adjacent cottages abounded and so did minor variations of roof pitch and so on. Appearances suggest small scale investments, perhaps on the part of combined self-help owner-builder-occupiers.

Typical materials were local rubble walls and clay tile roofs. None-too-generous floor area and headrooms suggest rather low quality, to be expected in view of the absence of by-laws outside the city. This meant that minimum standards of quality were determined largely by economic forces and human endurance. However, a benefit from lack of control by by-laws was that unrestrictedly-cheap building must have broadened the market and helped to keep the price of accommodation within the reach of the poor. The extent of truly flimsy building, long since perished, remains a topic for speculation, but crude cabins certainly existed elsewhere. The housing of the proto-suburb may be characterised as piecemeal, anarchic and inclined to be mean. At one extreme it merged with agricultural housing (outside our scope) and at the other with the next class considered below. It was the housing of the frontier, which is where it remains, so far as our understanding is concerned.

Mass Housing

The third class of housing is the stereotype of the industrial town, mass housing. By this is meant the bulk of 19th century provision, which took the form of monotonous rows of by-law regulated streets of repetitive terraced houses. Investment appears to have been in relatively large increments, by speculative builders, for sale to landlords and subsequent rental to artisans and others. Mass housing in Bristol may be dated from about the 1830's onwards, when provision began to be made on a larger scale than hitherto. Mass housing was built in a great arc north, east and south of the city, at the edge beyond the rookeries and in places overrunning the proto-suburbs. Fragments also sprang up elsewhere at the edges of Bath and the smaller settlements of Avon.

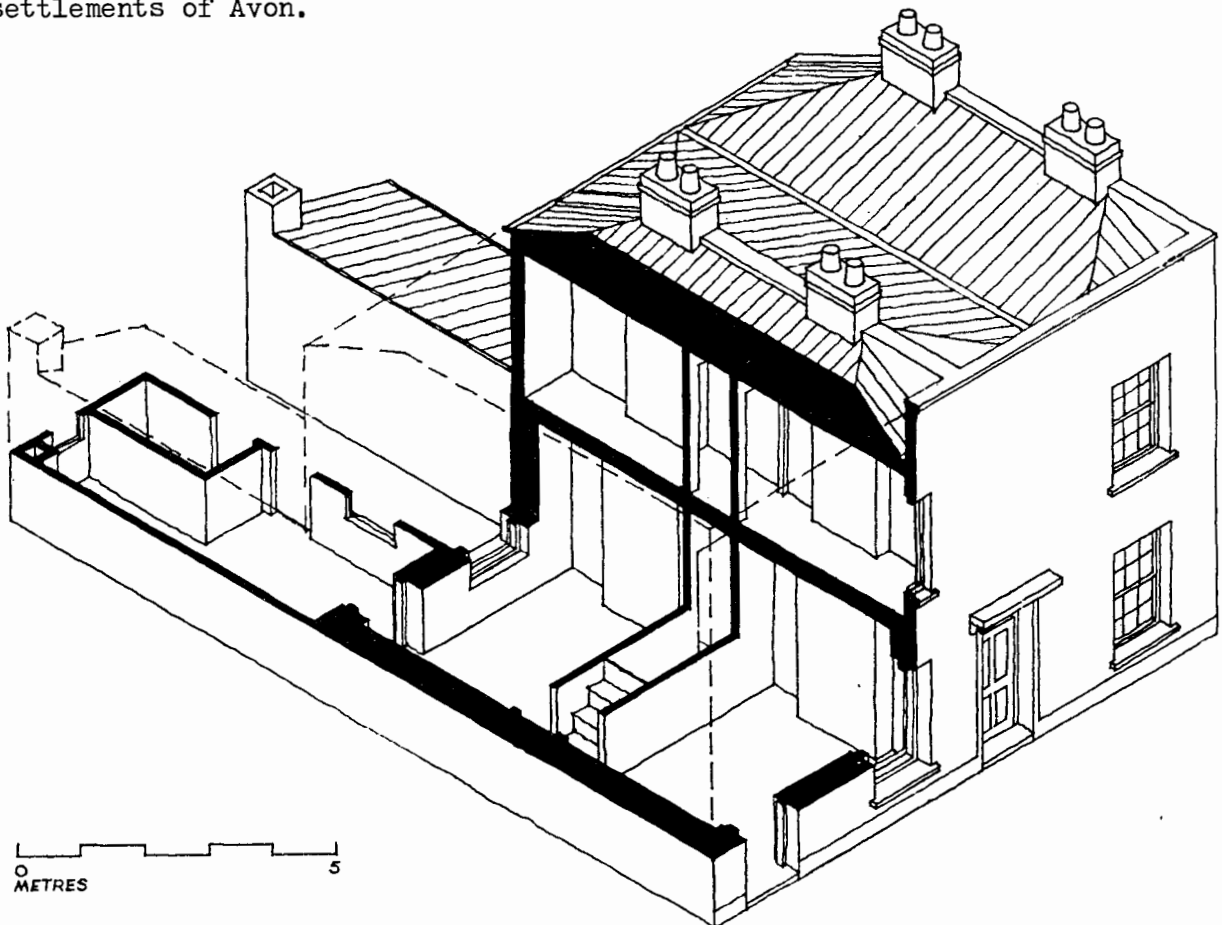


Fig 2 Mass housing. Terraced houses in Little Albert Street, Easton. Narrow frontage, five room type with single storey back projection.

The forerunners of the house types found in mass housing existed in the rookeries. For example, a series of nine close rows, built north of Redcross Street probably between 1815 and 1826, seem to represent the transition from courts to superior terraced housing. Individual house plans looked to the past, being small and in many cases back-to-back (appropriately, they adjoined a burial ground!). Yet their repetitive layout, of a rigid gridiron of parallel rows over 50m long, looked to the future.

Before long there appeared much less cramped streets in Barton Hill, where a cotton factory created demand from 1837, in Easton and elsewhere. These developments were to set the pattern for the remainder of our period and, indeed, up to 1914. On average, house quality may well have been a little higher than that of the faster-growing northern industrial centres, although that is not to say that overcrowding and other conditions in Bristol necessarily were better. Some typical terraced houses demolished in Little Albert Street, Easton (fig 2), in about 1964 had two main rooms each on ground and first floors(5). House plans were narrow frontage (this economised on street making and drainage), with timber stairs adjacent to the central cross partition. Small single storey sculleries projected at the rear, into small private gardens which were a luxury alien to the rookeries. House quality was quite good, with floor areas of 64 sq m, fireplaces in every room, and vertically-sliding sash windows. Parapets on front elevations concealed roofs which were inclined from ridges over the party walls to valleys along the centres of the houses. The parapets lifted appearances from those of rude cottages to something approaching the Georgian, and echoed what happened in London, but seldom elsewhere. Wall materials were rubble at ground floor level and brick at first floor, rendered externally. Superior versions of these houses had hall passages, which avoided direct access from street to living room, and two storey rear projections, giving a small additional bedroom in each case. Floor areas were increased to over 80 sq m and some frontages were embellished. Examples built in Montpellier in about 1850 had vestigial cornices and pilasters and, incidentally, basements(6).

Thereafter, economic growth appears to have encouraged rising standards for commonplace houses. Floor areas and room numbers appear to have grown and novelties multiplied, such as small front gardens, bay windows and expanded rear projections. Facing brickwork superceded rendering, and parapets were replaced by potentially less troublesome orthodox gable roofs. Housing of the type built towards 1880, for example in Totterdown, raises two important and related thresholds in the study of the subject. One is the threshold between vernacular and 'polite' architecture, and the other is that between artisan housing and middle class housing. Key features of mass housing, besides its ubiquity, were the extent of repetition (brought by a widening market, coupled with by-law regulation), and use of forms derived from superior houses. Mass housing was a successor to both the rookeries and the proto-suburbs.

Industrial Colonies

The fourth and final class considered here was probably the rarest, although it had the closest direct links with industry. It was housing in industrial colonies, provided by entrepreneurs when they set up new businesses, typically on virgin sites. Sometimes, especially early in the period, the need for such provision was inescapable, when there was no existing accommodation nearby. Later, urban growth and improved transport reduced the need for industrialists to provide houses, which was usually a relatively poor investment for them. Nevertheless, some provision continued to be made into the 1860's, and later. The motives for building industrial colonies were more complicated than appear at first. As well as sheltering the workforce, houses acted as incentive and control to attract and retain key workers. Houses also enabled industrialists to reclaim as rent some of their outgoings in wages. Further, houses gave opportunities for philanthropy and for gaining prestige through conspicuous expenditure.

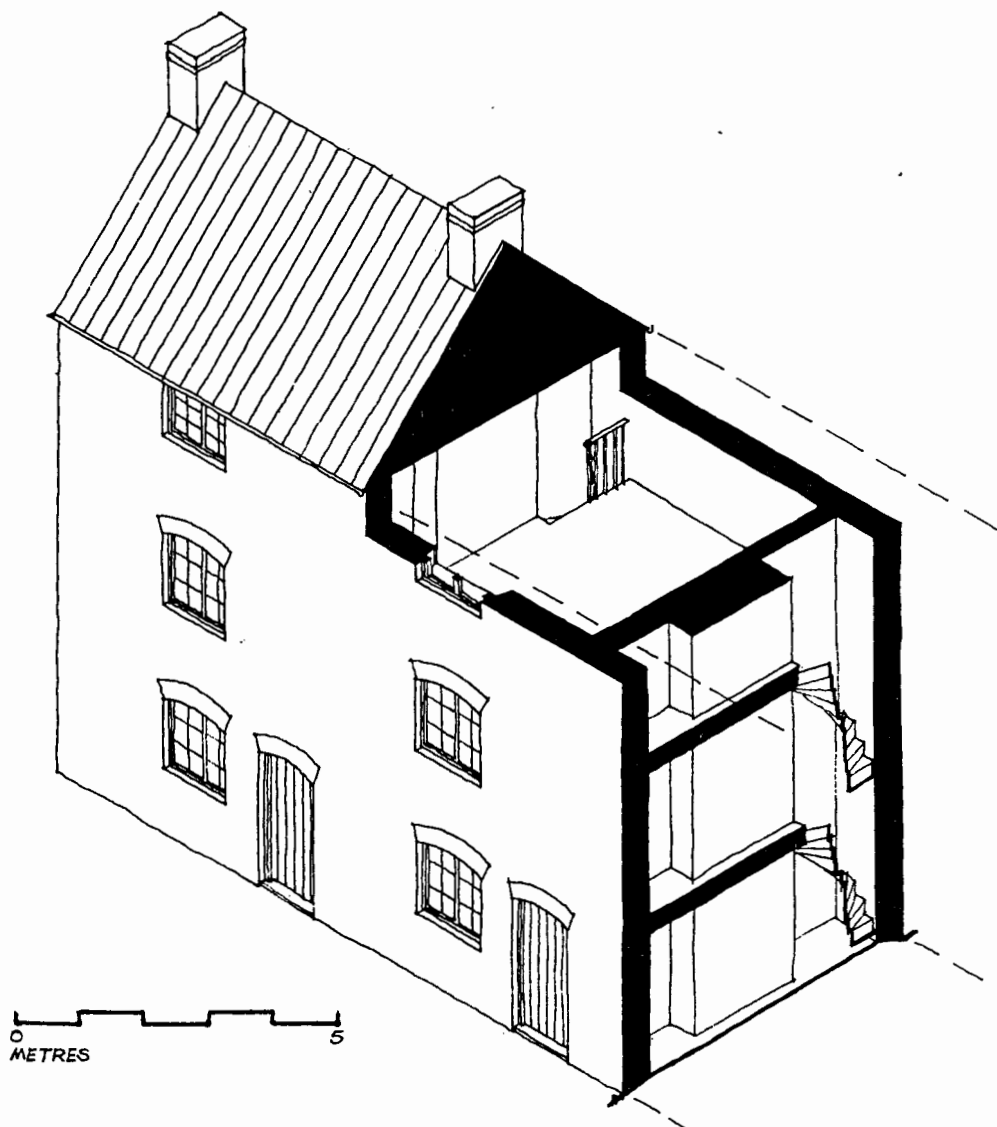


Fig 3 William Champion's housing for brass works employees. Three room, three storey terrace. Single storey back projection omitted, as original form not known.

One prominent, if uncommon, type of housing which might be included in a liberal interpretation of the class is the housing of emergent transport undertakings. This embraces cottages built by harbour, canal, turnpike and railway concerns, many of them attractive buildings. Probably a better example is the impressive hillside housing at Lower Whitelands, Radstock. This seems to have been associated with the Tynning coal pit, first sunk in 1837, although the housing has the appearance of being younger, perhaps by several decades. There are two long terraces (others of a different pattern were demolished), each three storeys high and with blind backs. Each house has two ground floor rooms, plus a later single storey rear extension. Winding stairs lead to three bedrooms, two on the first floor and one on the second floor. Wall materials are coursed rubble with dressed stone window surrounds, and roofs of slate. The houses are generously sized, with an impression of a carefully-considered, if unusual, design.

The second example, in contrast, lies among flat fields like an isolated fragment of mass housing. It was built in about 1866 by George Wintle to serve his lonely riverside brickworks near Littleton-on-Severn(?) (ST 595904). One-time 'Bunny Row' (a tribute to the fecundity of its occupants) consists of eight narrow frontage, two storey, brick houses. Nearby are several superior, but related, houses, no doubt for works managers. With the remains of the brickworks, the whole makes an apt illustration of an industrial colony, all the more clear for never having expanded beyond the initial stage.

The third example of industrial colony housing deserves to be better known, since it is among the very earliest of its type identified in Britain. It stands near Kelston (ST 694679) and consists of a pair of three storey

terraces of nine houses in all (fig 3). They are the work of William Champion, a prominent brassmaker who expanded his business by building mills on the site sometime between 1763 and 1769. Apart from their antiquity, the Kelston houses are noteworthy for being survivors of a type which was considerably more numerous, until recently. Champion built closely similar houses at Bitton and also at Warmley, where he had 25 dwellings in 1761(8). This early example of standardization took the form of stone-built, three room, three storey blind backs, again with single storey rear extensions added later(9). The pattern recalls in arrangement somewhat inferior house types encountered near the outset, in the rookeries.

In general, housing in industrial colonies appears often to have been of superior quality to that of similar date in other classes. Perhaps this was a consequence of industrialists' desire to impart a unified appearance and creditable standard of quality to their settlements. How many other colonies in Avon await recognition?

Further Study

The foregoing is no more than a tentative introduction to a large subject, no doubt replete with sins of omission. Therefore it seems fitting to conclude with some thoughts about ways in which field study might be taken forward. The central problem is one of priorities, since there remains a vast stock of relevant houses, significance among which is unclear, and all at risk to some degree. We cannot record everything. It is essential to be selective, preferably on a systematic basis of sampling. Having defined that smallest part of the stock which looks likely to yield a representative picture of the whole, another question remains. That is to do with what should be looked for and recorded about each house. What are the most important aspects of house form and quality? Floor area, room numbers and relationships, provision for heating and ventilation, building methods and much more, all seem significant.

Leaving aside such aspects as building sponsorship, occupancy and so on, one final point remains. It is the familiar one, almost the obligatory one, of stressing the urgency of field work. Irreplaceable source material continues to be lost, today less by municipal bulldozer than by do-it-yourself enthusiast, but with similar effect. To use the cliché much favoured by we academics, but still true for all that, there is a need for further research.

Acknowledgement

Thanks are due to Gordon Priest for guidance in the preparation of this paper.

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ARCHAEOLOGY AND THE MEDIEVAL CHURCHES OF BRISTOL,
ABBOTS LEIGH AND WHITCHURCH

David Dawson

BARG first considered the problems of church archaeology in this area some sixteen years ago (Leighton *et al*, 1965). Given the recent growth in awareness of the role that archaeology has in the study of churches on the one hand and the increased pressure to close churches in the central area of the city, it seems appropriate to review the Survey and Policy. This paper is an attempt to examine the medieval churches in the south-west part of the archdeanery of Bristol, which includes the modern city and the parishes of Abbots Leigh and Whitchurch (fig 1). Much of the data was collected in 1975-7, but where possible this information has been updated and summarised in the appended checklist of medieval sites and buildings.

Rather than produce a simple list, an attempt has been made to indicate priorities for further fieldwork and conservation. The 'grades' suggested are based on the system recommended by the CBA Churches Committee when considering proposed redundancies and a description can be found below. In this way, this paper can be used as a supplement to the policies suggested in 1965. Inevitably such grades are a matter of personal preference, but a number of factors have been taken into account in suggesting them.

CHURCHES IN THE LANDSCAPE

Churches are an integral part of the great process of human modification of the natural landscape. As buildings of such social importance and very often of political significance, it is crucial to understand the reasons why they were built where they were. Although there is still considerable scope for further fieldwork and documentary study, some patterns can be discerned.

Continuity from the Roman period

There is only one instance of direct evidence for this possibility. Indeed the chapel on Blaise Hill (Henbury 1) may be the only site in the region where continuity of religious use might have occurred from the Iron Age through to the 15th century. Other buildings may however be associated with earlier features. A remarkable number of the once rural churches are situated on prominent hill-tops, for example Horfield with its circular churchyard, Clifton, Stapleton, Bedminster and Abbots Leigh, and at least one, St Anne's chapel, Brislington, is by a holy well.

Churches in the rural landscape c 800-1540

Late Anglo-Saxon law defined four types of church: chief minster, minster, private church with burial ground and field church (Stenton, 1971, 148). Unfortunately there is insufficient information on the churches in the survey area to classify them accordingly. One interesting pattern does however emerge and that is the network of 'mother' churches and their chapelries. This, as one might expect, seems to be closely linked with the pattern of 11th century estates as organised into hundreds, and an attempt has been made in fig 2 to depict this situation.

a) Brentry

Most of north-west Bristol used to be covered by the parishes of Henbury and Westbury. By 1086, these and the other smaller estates of Yate and Itchington, all owned by the cathedral church at Worcester, had been organised into the hundred of Brentry (DB). The minster of Westbury, or Westminster, is

BRISTOL 1981—THE MEDIEVAL CHURCH SITES SURVEYED (except those in the City)

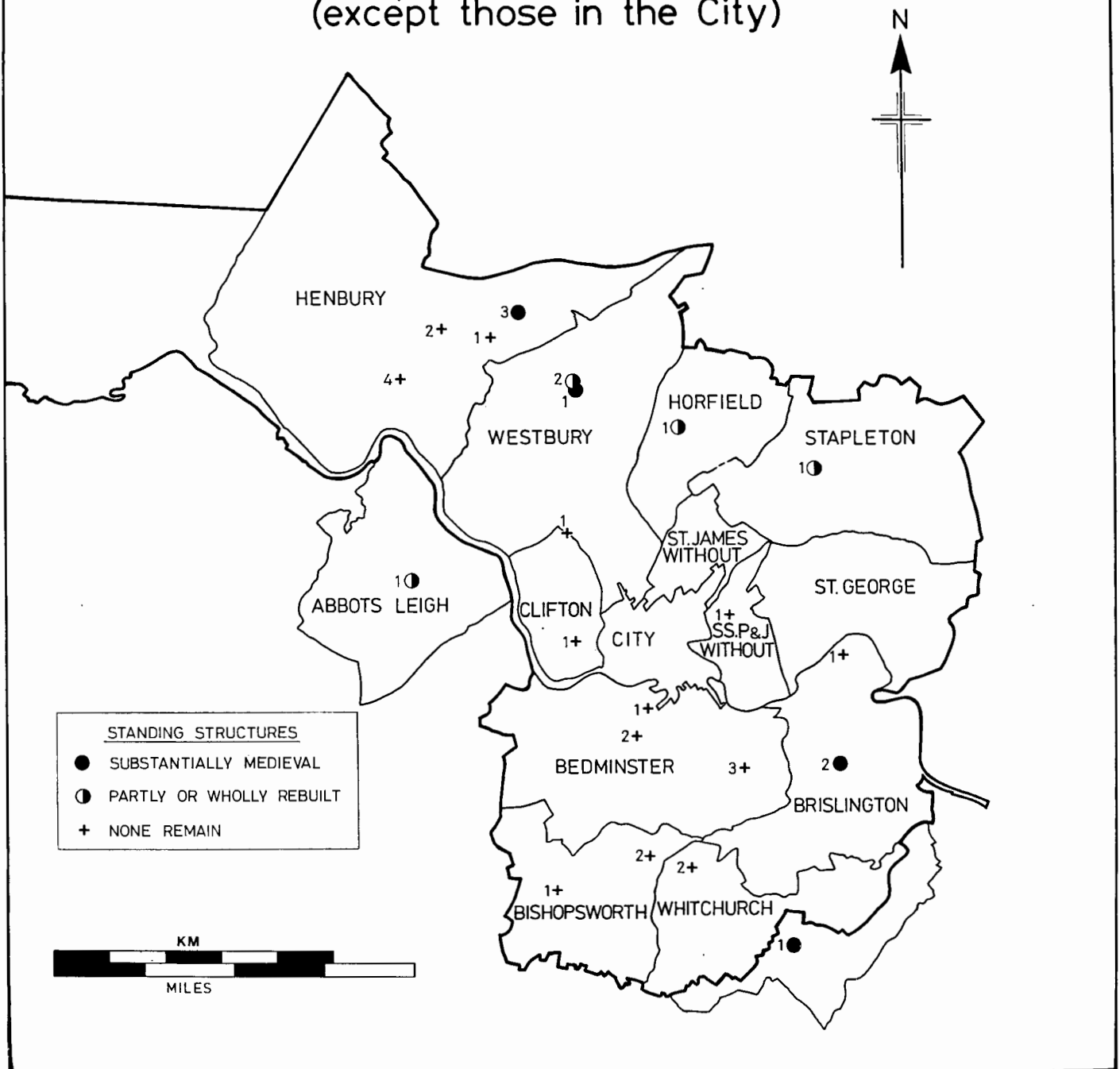


Fig 1 Medieval Church sites surveyed (except those in the City). Sites numbered under parish, see checklist

a well attested Saxon foundation and because of its role in acting as the centre of the 10th century monastic revival in Mercia, has been described as one of the most important ecclesiastical sites in this area. The house seems to have been closely dependent on the favours of individual bishops and its chequered career is reflected in the endowments it was given from Worcester lands. Its eclipse in the late 10th/11th century might explain why it was the bishop's church at Henbury which is known to be the mother church to at least four chapels in the hundred: Aust (since 1954 a chapelry of Alveston), Northwick (disused in 1961), Compton Greenfield (now an isolated parish church) and Lawrence Weston. The hundred of Henbury later included a fifth chapel at King's Weston. As in all these cases it is difficult to establish when this pattern developed. Henbury church for example is not mentioned until 1093, although the settlement name is known from the 7th century (Hamilton Thompson, 1915, 100; Smith, 1964, 130).

A clue to early activity at Lawrence Weston is provided by a fragment of inter-lace built into the porch of Lawrence Weston farm, and a Saxon strap-end was found in Blaise Castle in 1819 (Rahtz and Brown, 1957, 168-9).

b) Berkeley

It has been suggested that this hundred was formed before 1086 from a remnant of the estates of the former minster at Berkeley which had reverted to the king (Taylor, 1895, 79). The area was served by the mother church at Almondsbury and the three chapelries of Elberton, Filton and Horfield. This pattern may have been complete when they were bestowed on St Augustine's Abbey, Bristol. Horfield with its circular churchyard overlooking the valleys to the south has every appearance of a church planted in unenclosed land.

MEDIEVAL CHURCHES IN THE BRISTOL AREA

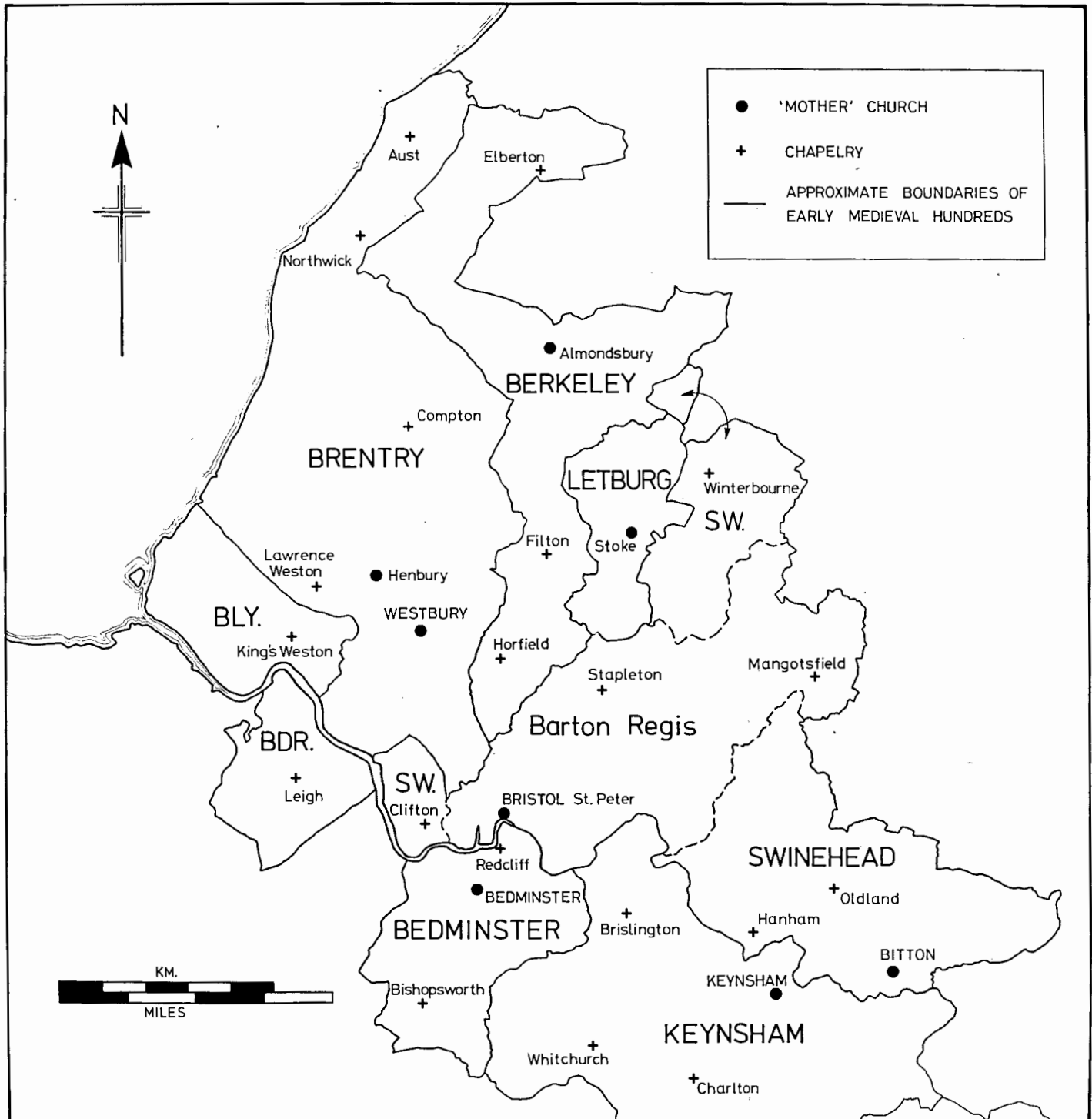


Fig 2 Medieval Churches in the Bristol area

c) Keynsham

The hundred probably derived from another ecclesiastical estate, that of the pre-conquest minster at Keynsham. The hundred and manor certainly formed a substantial part of the later endowment of the 12th century abbey, and this included the parish church of St Mary, St Peter and St Paul and its dependent chapels of Brislington, (Queen) Charlton, Felton (ie Whitchurch), Publow and Pensford (Scott Holmes, 1911, 129).

d) Bedminster

Although the hundred had been split into several holdings by 1086, the area was served by the one mother church, St John the Baptist. The name of the settlement may reflect the status of this church, the presbiter of which is mentioned in DB. Apart from the free chapel at Knowle, St John's seems to have had four chapelries; only Abbots Leigh was probably founded before the conquest; little is known of the chapel at Bishopsworth, except that land was given for it in 1189; and the other two, St Thomas and St Mary Redcliffe, are part of the post-conquest development of Bristol.

e) Swinehead

This is by far the largest and most complex DB hundred covering part of the survey area, but in the 13th century it was divided to form the new hundred of Barton Regis based on the town of Bristol (Smith, 1964, 83). At the east end of Swinehead, the church of Bitton, which still preserves part of the substantial Saxon building, served as 'mother' church. Its parish included the extensive manor of Bitton, including its members of Wapley and Winterbourne, and its chapelries of Hanham (Abbots) and Oldland. Its area of influence may have been wider than this but there is no evidence. In the west, Clifton may have been an independent pre-conquest church but its origins are unclear. Stapleton and Mangotsfield seem to have been founded as chapelries of Bristol St Peter and were administered by the Priory of St James.

Churches in Bristol c 800-1540 (fig 3)

The problems of describing and dating the stages in the meteoric rise of Bristol from its origins, perhaps somewhere in the 9th century, to be the second largest town in late medieval England seem to be as intractable as ever. This is despite the substantial amount of documentary and archaeological work which has been done. It is clear that much more, especially archaeological fieldwork, is necessary and an examination of ecclesiastical sites must play an important part.

a) Origins

Bristol can be seen as an agglomeration of planned 'new' towns round a central core. The traditional view that this core was situated round the central crossroads has been challenged and alternative models have been proposed. The suggestion that College Green is the site of a pre-conquest cemetery, possibly around an early chapel of St Jordan (6), would explain the context of Bristol's largest surviving 11th century artefact, the superb carving of the Harrowing of Hell now in the Cathedral (Dickinson, 1976, 120-6). Another proposal, that the Saxon burh is on the summit of the ridge east of the traditional site, has been strengthened by further archaeological work carried out by the City Museum in the 1970's and particularly by the conclusion that the inner town wall was not built until the 12th century.

The excavations of St Mary-le-Port (14) demonstrated the value of recovering archaeological evidence to the solution of problems of urban development. In this context, St Peter's church (16) left stranded in the 12th century between the inner town wall and the castle barbican, is of especial interest. As there is no reason to disbelieve the early 12th century tradition that the church was the 'mother' church of Bristol, it can be identified with the DB 'church of Bristou' (Walker, 1971, 14-18). Therefore the site is crucial to our understanding of the origins of the city. Similarly, Dickinson has argued for the importance of excavating the site of St Augustine-the-Less (3) to test his hypothesis

THE CHURCHES OF THE COUNTY OF BRISTOL

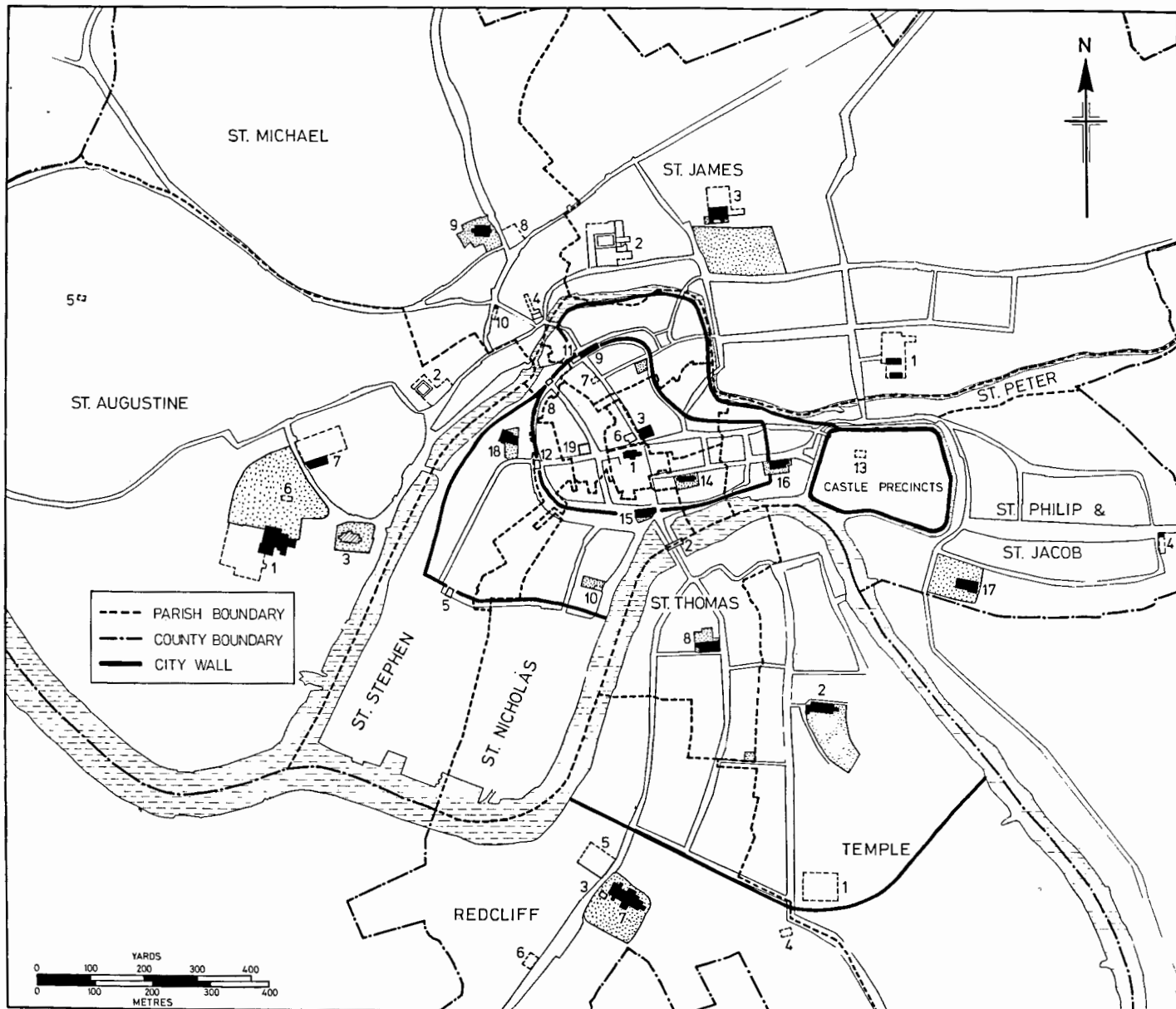


Fig 3 The Churches of the County of Bristol

b) Parish Churches

The medieval town was served by 18 parish churches; 19 if the church of St Giles (8) (closed in 1319) is included. Of these, nine are still in use as churches, although five of them are being considered for redundancy. Four churches have been closed and demolished, St Lawrence (11) (1580), St Leonard (12) (1768), St Ewen (6) (1788) and St Werburgh (19) (1876, part moved to Mina Road), and five more were burnt in 1940. The ruins of three of these have been conserved (see checklist II), St Augustine-the-Less (3) has been demolished in preparation for redevelopment and St Nicholas (15) has been reroofed and is used as a museum of church art and Bristol history.

The foundation of each of these churches can be related to various stages of the town's development. St Mary-le-Port (14) may be associated with the original Saxon burh. Only Christchurch (3) and All Saints (1) survive of the four churches within the inner town wall and these seem to be integral with the laying out of this Norman suburb. So too probably are the five churches built on the wall. By the end of the 12th century the outer suburbs were also served by their own churches; St Michael's (St Michael's (9)), Broadmead (St James (3)), Old Market (SS Philip and Jacob (17)), Temple Fee (Holy Cross (2)), Redcliff (St Mary (7)) and possibly St Thomas (8). For some reason there is no mention of St Stephen's (18) or St Augustine-the-Less (3) until the 13th century.

c) Monastic Houses and Hospitals

Substantial parts of the churches of two of Bristol's ten monastic houses survive in use; St James (3) and the present Cathedral (1), and one complete chapel from the two major hospitals, St Mark (7). All these establishments with the exception of some of the minor hospitals were founded in the 12th or 13th centuries and they encircled the town. So far a large part of the Greyfriars (2), the small hospital of St Bartholomew (4) and part of the house of the Knight's Templar (2) have been archaeologically excavated, but it is doubtful whether any such operations can be repeated except on the sites of St Augustine's abbey (1) and Blackfriars (1), which both have preserved standing structures, and possibly the priory of St James (3) and the hospital of St John the Baptist (5).

d) Chapels

Only the major free standing chapels were included in the survey. Unfortunately those that are likely to have been of archaeological interest have been completely destroyed, like the chapel of the Assumption (2) or, like the Chapel of St Jordan (6), their precise site is uncertain.

GRADES USED

These are the same as those recommended by the CBA Churches Committee.

- A of exceptional archaeological importance and deserving full excavation or preservation of the site.
- B of archaeological importance and deserving some (possibly full) excavation in the event of disturbance through demolition or building works.
- C of archaeological interest and deserving a watching brief in the event of disturbance.
- D of no foreseeable archaeological interest.

The grades a, b, c or d are similar to the above but are intended to indicate the potential of the standing structure alone as some types of building works can affect the fabric without disturbing archaeological evidence below modern ground level.

PRIORITIES

As the resources available for the preservation of archaeological sites or their recording are so limited, the priorities are based on the urgency of possible problems of destruction of the whole or parts of a site.

Urgent problems

a) Chapel of St Blaise (Henbury 1) Grade A

This is one of the many archaeological sites that the City of Bristol has tried to preserve. Unfortunately the site is being severely damaged by the illegal activities of treasure hunters who seem to be determined to destroy the site, presumably in the search for Roman coins. Ideally preservation of the site would be the preferred option, the alternative, complete excavation of that part of the hill-top, may however be the only realistic course.

b) St Augustine-the-Less (City-West 3) Grade B

The site has been cleared of standing walls and burials and is awaiting redevelopment probably as an extension to the adjoining hotel. Although archaeological levels were damaged in the clearance, some excavation should be undertaken before building starts.

Medium term problems

a) All Saints, Christchurch, St James, St John Baptist and St Thomas

Discussions have been taking place to declare these five city churches redundant. All five are of archaeological importance and have been graded Ab, Bc, Bb, Aa and Bc respectively. It is hoped that alternative uses proposed for the first four will involve few if any changes, but no such suggestions have been made for St Thomas. In all these cases any disturbance to the fabric or belowground levels will require archaeological work.

b) St Anne (Brislington 1) Grade C

It is uncertain how much of the remains of the chapel escaped the building of the Board Mills. These mills however have closed recently and when the site is redeveloped in the future, it will require site watching.

Possible future problems

a) All churches still in use

There are occasions when building works are necessary, either to maintain a building or to alter it or its furnishings to meet new requirements of use, but which involve the destruction of archaeological evidence. Richard Morris has drawn attention to these in the booklet Churches and Archaeology published by the Council for the Care of Churches.

b) Uncleared graveyards

Even if no further clearance happens, there is a need to record surviving memorials, because Pennant stone from which most local 19th century memorials were made weathers very badly. So far the yards of Clifton St Andrew, Bedminster St John and part of Henbury St Mary have been surveyed.

c) St Lawrence (Henbury 2)

It is possible that the site of this church may be discovered in further housing development at Lawrence Weston.

d) St Thomas

The site is partly covered by a shrubbery. If any of this is grubbed out or any building proposed for the site, archaeological work will be necessary.

CONCLUSION

This article only covers those sites occupied by a church or chapel before 1540 and is to be followed by a second surveying the developments since that time.

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CHECKLIST

I CHURCHES IN USE

ABBOTS LEIGH

(1) HOLY TRINITY Church Road

ST 740544

In village, on summit of ridge.
Probably pre-Conquest chapelry of Bedminster: c. 1158 confirmed to Sarum cathedral as a chapel of Bedminster (Taylor, 1909); c. 1291 (Tax); 1535 capella de Lygh (VE); 1852 parish assigned (OC); 1976 united with Leigh Woods (OC). Manor 1086 held by Thurstan the priest, TRE by his father (DB); c. 1140 to St. Augustine's Abbey by Robert Fitzharding; 1542 to see of Bristol (Kirby, 68). The Church was drastically restored after a fire in 1848, but the west tower and west part of south aisle are 15th cent. and the chancel and east part of south aisle are earlier. The north aisle is 19th cent. repaired after fire damage in 1972. Burials and heating ducts have disturbed the interior archaeological levels and a French drain has been cut along the south side of the church. BG has many good memorials of 18th cent. and later, the extension on the north is still in use.
Grade Cd

BRISLINGTON

(2) ST. LUKE Church Parade

ST 62067078

In village, on hill.
Chapelry of Keynsham: c. 1166 with settlement to Keynsham Abbey by William, Earl of Gloucester; 1535 part of spiritualia of Keynsham Abbey; later parochial. Present church 15th cent. west tower, nave, south aisle and south porch; 19th cent. north aisle, south-east chapel, chancel rebuilt. Open drain round most of the church, and some burials inside have disturbed archaeological levels. BG contains the base of the churchyard cross and memorials from 18th cent. on.
Grade Cb (DoE grade B)

CITY (INNER)

(1) ALL SAINTS (alias All Hallows) Corn Street

ST 58877302

*Deeply embedded in the urban fabric, on one of the four main streets.
Probably contemporary with the laying out of this part of the city possible c. 1100: pre 1153 to St. Augustine's Abbey by Ranulf Early of Chester; c. 1291 (Tax); 1535 (VE); 1958 chapel-at-ease to St. Stephen with St. Nicholas, St. Leonard and All Saints (OC). Sole remaining central parish church which retains a rich variety of architectural features; 12th cent. nave arcades, core of tower, 15th cent. nave, 18th cent. tower, 1898 chancel extensively restored. 18th cent. coffee house over north aisle, 15th cent. glebe house over south aisle. Fragments of 15th cent. wall paintings, possible more survives behind 18th cent. memorial to Edward Colston. Some disturbance by burials inside; 1916 north aisle underpinned (Pritchard 1920, 141). This church is an excellent case where archaeology should provide much information to elucidate the development of the building and this part of the Medieval town. Conversions have been made for use as the Diocesan Education Centre, but redundancy has been proposed.
Grade Ab (DoE grade B)

(3) CHRIST CHURCH (formerly Holy Trinity) Broad Street

ST 58897307

On one of the four main streets.
Probably contemporary with the laying out of this part of the town, possibly c. 1100: pre 1147 to Tewkesbury Abbey by Philip the Priest; 1276 parish church (12 Tewk 81); 1291 (Tax); 1535 (rectory and 4 chantries) (VE); 1540 first called Christchurch; 1787 parish united with St. Ewen (OC). The old church was demolished in 1787 and the present building (probably designed by William Paty) was completed 17

in 1790. Although there have been later alterations notably those of 1883 when the portal was added and the interior reordered, the church remains Bristol's best 18th-cent. city church. It is probable that substantial archaeological evidence has survived of the earlier buildings in spite of disturbance by burials and 19th-cent. heating ducts. Small BG on north side retains only a few memorials not in situ.

Redundancy has been proposed.

Description with plan of present church (Ison, 51, 72-76).

Grade Bb (DoE grade B)

(4) CHAPEL OF THE HOLY TRINITY
Old Market **ST 58767318**

Immediately inside Lawford's Gate at the east end of Old Market.

Chapel of the Hospital of the Holy Trinity and St. George founded in 1402 by John Barstaple. (Leighton 1913).

The present building was rebuilt in 1796 and again rigorously restored in 1881-3. The Hospital was rebuilt (by Foster and Wood) in 1857-8, 1867 and 1881-3.

Burials including those of the founder and his wife have been made inside.

Maintained by Bristol Municipal Charities.

Grade Cd (DoE grade II)

(9) ST JOHN BAPTIST
Broad Street **ST 58747315**

On inner town wall over north gate.

Presumably founded by north gate when inner town wall built c. 1100: 1191-3 confirmed to Tewkesbury Abbey by Bishop of Worcester (12 Tewk 82); c. 1291 administered by St. James Priory (Tax); 1535 (rectory and 3 chantries) (VE); 1580 parish united with St. Lawrence; 1957 parish united with St. Mary-le-Port (OC).

A church of two storeys each with chancel and nave, which was erected in several stages in the 14th and 15th cents. The crypt was dedicated to the Holy Cross. It is important archaeologically in that it is integral with the town wall and preserves the only surviving gateway under its west tower. It is also the last church to preserve the local feature of a one bay clerestorey to light the rood loft. The church was used extensively for burials but this should not detract from the archaeological importance of the building. BG in Taylor's Court (ST 58857317) consecrated 1409 (Nicholls and Taylor, 156) preserves 18th-cent. and later memorials; wall and gateway (DoE grade II).

Redundancy has been proposed.

Grade Aa (DoE Grade A)

(15) ST. NICHOLAS
St. Nicholas' Street **ST 58927293**

On inner town wall, formerly over south gate.

Presumably founded as chapel when inner wall built c. 1100: pre 1153 to St. Augustine's Abbey by Ranulf, Earl of Chester; c. 1291 (Tax); 1535 (2 chantries) (VE); 1766 (8) united with St. Leonard (Kirby 173); 1958 parish united with St. Stephen and All Saints, with St. Stephen as parish church and church to be demolished (OC); 1964 site to be appropriated for an 'ecclesiastical museum or other congruent purposes' (OC); 1973 St. Nicholas' Church and City Museum opened as branch of City Museum and Art Gallery.

Another two storey church integral with the town wall, but the chancel over the south gate and the rest of the upper part were demolished in 1762. 14th-cent. nave, south aisle and fragment of the chancel of lower part remain and archaeological work carried out since 1972 has helped elucidate the development of the building. This medieval work is incorporated in the Gothick building of James Bridges and William Paty completed in 1769. Upper church burnt out November

1940. There are extensive burial vaults below the chancel and nave. BG has been part enclosed in the church by a 19th-cent. extension and the rest is below Baldwin Street and much disturbed by services. The two other BGs in Crow Lane (ST 58887278) and Queen Charlotte Street (ST 58827278) have been destroyed by post war office development but some burials survive below Crow Lane. Maintained by the City of Bristol.

Description with plan of upper church (Ison, 52, 65-70), 19th cent. plan of lower by G.C.H. Ashmead reproduced with description (Nicholls 1879).

Grade Bb (DoE grade II)

(17) SS. PHILIP AND JACOB
Narrow Plain **ST 59477299**

To south side of Old Market.

Founded as parish church to the suburb of Old Market, parish included Kingswood Forest until 1752: pre 1191-3 confirmed to Tewkesbury Abbey by the Bishop of Worcester; c. 1291 (Tax); 1535 (vicarage and 2 chantries) (VE); 1936 parish united with Emmanuel (OC).

The earliest recognisable part of the building is the 13th-cent. lower stages of the tower, but a 12th-cent. tomb slab was preserved in the chancel (but recently removed). Most of the rest is 15th cent. and later but its precise development could be elucidated by archaeological work. Interior has been disturbed by burials. The extensive BG has been cleared of all but a few memorials.

Grade Bb (DoE grade B)

(18) St. STEPHEN
St. Stephen's Avenue **ST 58677298**

Just outside inner town wall.

Origin unknown: c. 1291 ecclesia parochia belonged to Glastonbury Abbey (Tax); 1535 (rectory and 6 chantries) (VE); 1958 parish united with All Saints and St. Nicholas (OC). A fine irregularly planned late 15th-cent. church, which has been extensively restored. (Bathurst). Its standing structure shows a complex building history. Worcestre described the terminology used by the masons constructing the south porch (Harvey 316). Although it has been disturbed by internal burials and heating ducts, its archaeology is important in establishing the date of reclamation of this part of the Marsh and its relationship with the supposed early course of the Frome. BG cleared of memorials.

Future seems assured as Bristol City Parish Church.

Grade Ba (DoE gradeA)

CITY (WESTERN SUBURBS)

(1) CATHEDRAL OF THE HOLY AND UNDIVIDED TRINITY
College Green **ST 583726**
(formerly the Abbey of St. Augustine)

On a hill overlooking the Avon marshes.

Significance of the site is uncertain (Dickinson): 1140 founded as a house of Augustinian canons by Robert Fitzharding (Sabin); summary history (Graham, 75-79); 1539 surrendered; 1542 designated cathedral on foundation of the diocese of Bristol.

The 10th-cent. sculpture of the Harrowing of Hell, found re-used as a graveslab in the chapter house, is the earliest evidence of ecclesiastical activity (Smith 1976). The surviving part of the monastic church, which incorporates parts of the 12th-cent. building, is of great architectural importance and has been described by many authorities, but light could be shed on many problems by using archaeological techniques. Traces of the Norman church must survive below later medieval work and the nave of 1868-88. Apart from the 12th-cent. chapter house and part of the 14th-cent. cloister, substantial remains of the

claustral buildings survive embedded in the Cathedral School. The main BG, College Green, has been cleared of memorials and lowered, but a small BG remains with many memorials intact south of the Lady Chapel. Described with plan of the church (Britton) and the whole monastrey (Paul). Grade Aa (DoE grade A, gatehouse grade I)

(7) CHAPEL OF ST. MARK
College Green

ST 58387283

Faces onto College Green.

Hospital: pre 1230 founded by Maurice de Berkeley; summary history (Graham, 114-8); 1539 surrendered; 1541 granted to the Corporation of Bristol.

A complex church with 13th-cent. nave and chancel, later south aisle, 15th-cent. tower and east end, and 16th-cent. chapels. There are no standing remains of the claustral buildings, the present cloister was erected during the extensive restoration of 1888-9. Archaeological evidence has been disturbed by this and earlier burials.

Maintained by the City of Bristol as the Lord Mayor's Chapel. Detailed description with plans (Barker). Grade Bb (DoE grade A)

(9) ST. MICHAEL
St. Michael's Hill

ST 58517329

Half way up the hillside on the north bank of the Frome. Probably founded in the 12th cent. to serve this suburb: 1191-3 confirmed to Tewkesbury Abbey; c. 1291 (Tax); 1535 (rectory) (VE).

Most of the medieval church except for the 15th-cent. tower was demolished in 1775 (Ison 70-2). Archaeological evidence of the earlier building seems to be preserved below the undercroft of the new church designed by Thomas Paty. The BG has been encroached on and few memorials remain. Grade Cc (DoE grade B)

(10) CHAPEL OF THE THREE KINGS OF COLOGNE
Colston Street

ST 58587318

On the main road through St. Michael's. Chapel of Foster's Almshouses founded in 1492; 1548 exempted from suppression of the chantries (Maclean 248). The rest of the hospital has been rebuilt, but the chapel survives much restored. It formed the east end of a range of buildings along the street. It is unlikely that much evidence has survived the regrading and the rebuilding in the area. Maintained by Bristol Municipal Charities. Grade Cc (DoE grade II)

CITY (ST. JAMES WITHIN)

(3) ST. JAMES
St. James' Parade

ST 58887346

On the north side of Broadmead. Benedictine priory: by 1143 founded as a cell of Tewkesbury Abbey by Robert, Earl of Gloucester; c. 1291 managed churches of St. Peter and St. John Baptist; summary history (Graham 74); nave certainly parochial by 1374 but probably was so much earlier; 1539 priory surrendered; 1957 parish united with St. Peter (OC).

The nave is an important 12th-cent. building with an unrestored wheel window in the west gable. It is the earliest substantial standing building in the city although it has been altered with a 14/15th-cent. tower, 17th-cent. south aisle and an additional north aisle of 1864 which preserves part of the rest of the south cloister walk beneath the floor. Some archaeological evidence of the rest of the conventual buildings may survive under the 'bus station. Although traces of the east end of the

church were probably irradiated by the post-war office building, remains of the crossing and transepts may be preserved under Cannon Street. The archaeological potential of the church is significant in spite of the ground under the south aisle having been voided for burial vaults. The BG is very extensive. Parts have been destroyed by the building of Lewis's and post-war roads (Mason). The rest has been cleared of memorials and turned into a park except for a tiny plot on the south side of the church. Redundancy has been proposed. BG maintained by City of Bristol. Grade Bb (DoE grade B)

CITY (REDCLIFFE-TEMPLE)

(7) ST. MARY REDCLIFFE
Redcliff Hill

ST 591722

On north side of Redcliff Hill outside the town wall. Probably a post-conquest chapelry of Bedminster: 1158 confirmed to Sarum cathedral; 1535 (vicarage and 13 chantries) (VE); 1852 parish assigned; 1956 parish united with Temple and St. Thomas (OC); 1965 parish united with part of St. John, Bedminster (OC).

Major 14/15th-cent. building of architectural importance but vigorously restored in the 19th cent. Earlier features include a 12th-cent. effigy in the north transept, 13th-cent. north porch with its extraordinary 14th-cent. extension to house the shrine of Our Lady of Redcliffe. In spite of re-facing, the building would repay archaeological analysis. There is some disturbance by heating ducts and burials. BG cleared of most memorials.

Detailed description and plan (Brakspear 1922); earlier plan 1717 by Lyons (Williams 1931). Grade Ba (DoE grade A)

(8) ST. THOMAS MARTYR
St. Thomas' Street
(also St. Thomas the Apostle)

ST 59107276

In a suburb probably laid out in the 12th cent. A chapelry of Bedminster, probably founded soon after the martyrdom of St. Thomas in 1170: c. 1240 (RBBR); 1852 parish assigned; 1956 parish united with St. Mary Redcliffe with St. Thomas to be used as the centre of the ministry among those engaged in industry in Bristol (OC).

Church rebuilt on a grand scale in the 15th cent. but demolished except for the tower in 1789 to erect the present church (Ison 1952, 84-6). Some architectural fragments are preserved inside. Archaeological deposits must be disturbed by burials and heating ducts. The small BG has been cleared of memorials and laid down to grass. The other BG in Mitchell Lane (ST 59257262) has been built on since the war.

Redundancy proposed. Description with sketch plan (Taylor 1904). Grade Bc (DoE grade B)

HENBURY

(3) ST. MARY THE VIRGIN
Church Lane

ST 563787

In centre of settlement. Formerly the centre of an extensive parish with at least five chapelries; probably founded before the conquest, it belonged to the see of Worcester and was later endowed on Westbury College: 1093 first mentioned (Hamilton Thompson, 100); c. 1291 (Tax); 1535 (vicarage) (VE). Henbury was first recorded in the 9th cent. possible in the 7th. (Smith 1965, 130) and served as the centre of the exten-

sive manor of the Bishops of Worcester who established a palace here, presumably near the church. The church is a substantial early 13th-cent. building (tower, nave, aisles, chancel and south-east chapel) and is of local architectural importance. The chancel is aligned north-eastward of the nave, perhaps reflecting the pre-conquest plan. There have been many alterations, including modifications to the aisles in the 15th cent. and extensive restoration and addition of the north-east chapel in the 19th cent. Burials and heating ducts have disturbed archaeological levels but this is not serious except below the south-east chapel. The ancient BG has a superb collection of memorials, some cleared to the yard wall. Notable are those to Scipio Africanus (DoE grade II) and Amelia Edwards. The extension yard to the west was used until recently. Grade Bb (DoE grade B)

HORFIELD

(1) HOLY TRINITY Wellington Hill ST 591767

Isolated on Horfield Common. Possibly pre-conquest chapelry of Almondsbury; c. 1291 capella de Horefeld (Tax); rectory of Horfield and Filton and the manor of Horfield was endowed on St. Augustine's Abbey, 1542 to see of Bristol (Kirby 68). The earliest feature is a 12th-cent. capital preserved inside. The old church was demolished in 1847 except for the 15th-cent. west tower and the present building was erected 1847-1929. The 15th-cent. font and 18/19th-cent. memorials were also kept. The latter record burials inside the old church. The ancient BG is circular in shape and preserves 18th-cent. to modern memorials. Grade Bd (DoE grade C)

STAPLETON

(1) HOLY TRINITY Bell Hill ST 61557597 (formerly St. Giles)

In settlement at the top of Bell Hill. A chapelry of Bristol St. Peter: 1457 first mentioned (RBBR); 1458 right to bury granted; 1691 last mention of St. Giles; 1720 first mention of Holy Trinity. The old church with a 15th-cent. west tower was demolished for the present building by John Norton. This was consecrated in 1857 and the vestry added 1892. The 13th-cent. font and 18/19th-cent. memorials are preserved, the latter recording burials in the former chancel. The BG has been cleared except for a few flat slabs. The settlement was first recorded in 1215 in the Close Rolls. The font may suggest that a chapel was here by that time. Grade Cd (DoE grade B)

WESTBURY-ON-TRYM

(1) HOLY TRINITY Church Road ST 57337740

On the slope of the hillside overlooking the settlement and the College. Probably the site of the Saxon minster church (see Westbury College, below), later collegiate and parish church; 1455 college re-established; 1544 college surrendered. Earliest feature is a 10th-cent. grave-slab built into the tower (Lindley), the plan of the nave and chancel are however highly

irregular and may reflect the survival of part of the pre-conquest building in the present structure. The large 13th-cent. (parochial) south aisle is added to an earlier structure. The rest was largely rebuilt in the 15th cent. with west tower, clerestory, north aisle and apsidal chancel above the burial crypt of Bishop Carpenter (died 1476). The north- and south-east chapels are later additions, as is the west end of the north aisle. The church was restored in 1851 and provided with ducted heating using Carpenter's crypt as boiler house. This does not detract from the great archaeological potential and importance of the church and its surroundings. The large BG preserves many memorials. Grade Ab (DoE grade B).

WHITCHURCH

(1) ST. NICHOLAS Church Road ST 612674 (formerly St. Gregory)

In the present village. A chapelry of Keynsham, supposedly built on the site of a chapel of St. Whyte (Collinson 2, 44): 1166-72 with settlement of Felton given to Keynsham Abbey by William, Earl of Gloucester; 1535 part of spiritualia of Keynsham; 1972 ecumenical parish of Whitchurch created (OC). The church is a 12/13th-cent. cruciform building with central tower. The south aisle has been demolished for the 15th-cent. south aisle, built at the same time as the west end of the nave. The later 15th-cent. south-east chapel retains its timber screens and, with the nave and south aisle, its 15th-cent. roof. Although French drains have been dug round the outside and the interior has been disturbed by burials, archaeological work could elucidate its development. The BG has 18th-cent. and later memorials but some have been cleared. It is still in use. Grade Bb

II CHURCHES IN RUINS

CITY (INNER)

(14) ST. MARY-LE-PORT formerly St. Mary-le-Port Street ST 58987302

On the south side of the main street that used to run along the sandstone ridge. Probably a pre-conquest foundation: 1086 possibly one of the 'churches' ; 1166-72 given to Keynsham Abbey by William, Earl of Gloucester; c. 1291 (Tax); 1535 (rectory) (VE); 1957 parish united with St. James; 1957 parish united with St. John Baptist with St. John's as parish church. The church was burnt in 1940 and later, apart from the 15th-cent. tower, the ruins were demolished to waist height and recently the remains of the nave, north aisle, chancel and north-east chapel with its 13th-cent. undercroft have been consolidated. The BG has been cleared of memorials and partly quarried away. The surviving part is a shrubbery. This is the only City parish church to have been archaeologically excavated. P.A. Rahtz demonstrated the use of archaeological techniques for showing how a church developed, in this case from a small two-celled 11th-cent. building to a 15th-cent. aisled church. Plan and summary of excavations (Wilson & Hurst 1964, 249, 251), full report forthcoming shortly. Maintained by the City of Bristol. Grade Bc (DoE grade II)

(16) ST. PETER

Peter Street

ST 59117308

On the south side of the same main street line as (14). Pre-conquest foundation, probably to serve the manor of Barton Regis, and mother church to Mangotsfield and Stapleton: 1086 probably the 'church' (DB); 1105 described as *primitivum et principalem esse omnium ecclesiarum de Bristo* in confirmation to Tewkesbury Abbey; 1535 (rectory) (VE); 1957 parish with St. James with latter as parish church (OC).

The church was burnt out in 1940 and the ruins recently have been consolidated. An archaeological survey was conducted 1969-70 and the consolidation work was site watched (Dawson et al). Earliest is the lower part of the west tower, probably 11th-cent., which projects eastward of the line of the inner town wall. The rest of the building is a complex Medieval and later structure, heavily restored in the 19th cent. The interior has been extensively disturbed by burial vaults and below the south aisle by heating chambers and ducting. BG cleared of burials and is now laid out as a garden. Maintained by the City of Bristol.

Description with plan (Boucher).
Grade Ab (DoE grade II)

CITY (REDCLIFFE-TEMPLE)

(2) HOLY CROSS (TEMPLE)

Temple Street

ST 59317272

In the 12th-cent. suburb of Temple Fee.

House of the Knights Templar: area given to the order by Robert, Earl of Gloucester; after 1312 transferred to the Knights Hospitaller; 1342 made parochial; 1535 (vicarage and 1 chantry) (VE); 1956 parish united with St. Mary Redcliffe with latter as parish church.

Church burnt in 1940 and ruins consolidated. The footings of the 12th-cent. round church discovered in 1872 have been laid out (Nicholls and Taylor 140). Later excavations to the north of the church uncovered the foundations of a contemporary hall since destroyed by office development. The church was the finest late medieval church in the city. The BG is a public park and most of its memorials have been cleared.

In the guardianship of the Department of the Environment.
Grade Ba (DoE grade I)

III CHURCHES DESTROYED

BEDMINSTER

(1) HOSPITAL OF ST. CATHERINE BRIGHTBOW

East Street

ST 58687170

By the bridge over Bedminster brook.

Founded by 1219 by Robert de Berkeley; summary (Scott Holmes 154). Possible archaeological evidence survives below the former Wills factory.

Grade C

(2) ST. JOHN BAPTIST

St. John's Street

ST 58477140

In former village, on a bluff overlooking the valley of Bedminster brook.

Probable site of Saxon minster, mother church to Abbot's Leigh, St. Mary Redcliffe and St. Thomas Martyr with extensive parish; c. 1115 rectory given for prebendry of Sarum cathedral; 1535 (vicarage) (VE); 1965 parish united with

St. Mary Redcliffe with Temple, with St. Mary Redcliffe as parish church and ruins of St. John to be demolished and site sold (OC).

Church damaged by fire 1645; 1853 church demolished; 1855 new church by John Norton, consecrated incorporating 13th-cent. north door; 1940 church burnt, 1965 ruins cleared; 1980 BG created a public park, memorials cleared except for base of Medieval churchyard cross and gravel put down over footings of the church. BG has been recorded, in anticipation of further archaeological work, by the AGBA (Dawson). In spite of some damage by internal burials, and 19th cent. heating ducts, the site is of archaeological importance and ought to be scheduled.
Grade A

(3) KNOWLE CHAPEL

Knowle

Precise Site uncertain, ¼ mile from St. John Baptist (Collinson 2, 28).

Probably built to serve the settlement of Knowle (DB). A free chapel: date of foundation unknown; 1535 *libera capella* (VE); 1791 'long since ruined' (Collinson 2, 28).

Grade D

BISHOPSWORTH

(1) CHAPEL

Site is uncertain, but has been attributed to the present churchyard of St. Peter, Church Road ST 57036866

1189 land was granted to Walter de Dunstanville to found a chapel (Berkeley MSS). The settlement was TRW in possession of the Bishop of Coutances (DB).

Grade D

(2) CHAPEL OF ST. PETER, BISHPORT

Inns Court

Site uncertain.

Founded by John Arthur, lord of the manor of Bishport on licence from Gilbert de Dunstan, canon and prebend of Salisbury.

Incorporated in a dwelling house by 1791 (Collinson 2, 286).
Grade D

BRISLINGTON

(1) CHAPEL OF ST. ANNE

St. Anne's Wood

ST 62077278

In the secluded valley of Brislington brook near St. Anne's Well. Pilgrimage chapel associated with the holy well: date of foundation unknown; 1392 mentioned in will of John Becket; 1537 disused (Pountney 284).

The chapel was later part of the Brislington pottery and as such was excavated by William Pountney in 1914 and many of the finds deposited in the City Museum (Pountney 23-27, 273-292). Site now covered by buildings of St. Anne's Board Mills (recently closed).

Grade C

CITY (INNER)

(2) CHAPEL OF THE ASSUMPTION OF THE VIRGIN MARY

Bristol Bridge

ST 59007290

Over the roadway on the middle pier of the bridge.

Chantry chapel (Maclean 239): presumably built in or after 1247 when the bridge was rebuilt (Lobel and Carus Wilson, 7); 1535 (1 chantry) (VE); 1547 suppressed and purchased by City; survived to 18th cent. but demolished by 1765 (Hudd).
Grade D

(5) CHAPEL OF ST. CLEMENT
King Street **ST 58687270**

Guild chapel: founded 1493; rebuilt in 1701, remains incorporated in Merchant Venturer's Hall. Site now occupied by a roundabout, but some evidence may survive.
Remains described with plan (Warren 187-190).
Grade C

(6) ST. EWEN
Broad Street **ST 58877306**

On one of the four main streets.
Probably founded when this part of the town was laid out c. 1100: pre 1147 to Thurstan the Priest by Robert Earl of Gloucester; 1285 parish church: (12 Tewk 75d); 1535 (rectory) (VE); 1788 parish united with Christ Church (Kirby 167); by 1824 demolished.
Much damage must have been done when the new Council House (1822-7) was built with cellars. 12th cent. architectural fragments were found during construction work (Nicholls and Taylor 249).
Grade C

(7) CHAPEL OF ST. GEORGE
Broad Street **ST 58807310**

Founded in late 14th cent. by Richard Spicer; 1814 demolished; 1843-6 site redeveloped for Guildhall.
Site extensively cellared.
Grade D

(8) ST. GILES
Small Street **ST 58717309**

Over a gate in the inner town wall.
Possibly a chapel of St. Leonard's; 1285 ecclesia Sancti Egidi (RBBR); 1319 demolished (traditional).
Street regraded in 18th cent. and site to east redeveloped recently but some evidence may remain below the premises on the corner with Leonard Lane.
Grade C

(10) CHAPEL OF ST. JOHN THE EVANGELIST
Crow Lane **ST 58897279**

In the burial ground of St. Nicholas.
Chantry chapel (Maclean 239): founded c. 1404 by Thomas Knapp; 1547 suppressed; later demolished.
Site occupied by Telephone House; site watching revealed no further evidence.
Grade D

(11) ST. LAWRENCE
Bell Lane **ST 58737314**

On the inner town wall, abutting St. John Baptist.
Probably founded in 12th cent. after the wall was built: Parish church: c. 1291 (Tax); 1535 (rectory and 1 chantry) (VE); 1580 parish united with St. John Baptist.
Church demolished post 1580; some remains recorded (Bindon, 133); site occupied by post-war shops and offices.
Grade D

(12) ST. LEONARD
Corn Street **ST 58747296**

Over the west gate of the inner town wall.
Probably originated as a chapel over the west gate c. 1100: Parish church: pre-1153 to St. Augustine's Abbey by Ranulf, Earl of Chester; 1535 (vicarage) (VE); 1766 (8) parish united with St. Nicholas.
Church demolished 1771 to build Clare Street; most of the church seems to have been over the gate but some domestic remains were attributed to it (Bindon 127-128); these were destroyed in 19th cent. development. Some evidence probably survives below the street though disturbed by services.
Grade C

(13) CHAPEL OF ST. MARTIN
Castle

Precise site unknown.
1250 first mentioned; summary history (Warren 192-193).
May have escaped the recent landscaping.
Grade C

(19) ST. WERBURGH
Corn Street **ST 58807301**

On one of the four main streets.
Probably founded when this part of the city was laid out c. 1100: Parish church: 1166-72 to Keynsham Abbey by William, Earl of Gloucester; c. 1291 (Tax); 1535 (rectory and 1 chantry) (VE); 1876 closed (Kir by 176).
Chancel demolished 1760 to widen Small Street, rest 1878.
The tower and other parts of the building were re-erected at Mina Road and the site used to build a bank. There is probably some archaeological evidence left although much disturbed by services and vaults.
Grade C

CITY (WESTERN SUBURBS)

(2) CARMELITE FRIARY
Colston Street **ST 58827302**

On west bank of new quay.
c. 1267 traditionally founded by Edward, Prince of Wales; summary history in VCH (Graham 110-111); 1538 surrendered.
Great House built on site and later the Colston Hall, Archaeological finds were recorded when part now occupied by Colston Hall was cleared (Pritchard 1906; 1920, 136-138). It is very doubtful whether any archaeological deposits survive.
Grade C

(3) ST. AUGUSTINE-THE-LESS
College Green **ST 58497272**

On a bluff overlooking the Frome.
Founded under the patronage of the adjoining abbey of St. Augustine presumably post 1140. Suggested site of temporary buildings of the abbey (Dickinson). Parish church: c. 1291 (Tax); 1535 (vicarage) (VE); 1938 parish united with St. George, Brandon Hill (OC); 1956 closed and demolished.
Chancel lengthened 1708; Medieval church extensively altered in 1823 and 1840; damaged 1940. BG has been encroached on in road improvements, rest cleared early 1970's. Site-watching during this operation showed that there are some substantial archaeological material surviving. Site is due for redevelopment. Further archaeological work is planned.
Grade B

(4) HOSPITAL OF ST. BARTHOLOMEW
Christmas Street **ST 58647320**

On west bank of the Frome.

Founded pre-1243; 1532 suppressed and converted into the Grammar School.

Site was recorded and part excavated by the City Museum 1976-8. One arcade and remains of another of what may have been the chapel survive, re-using 12th-cent. piers; the gateway of 13th-cent. materials was rebuilt in 16th cent. (Price 1979). A good example of how archaeological work can elucidate a complex sequence of structures, both buried and still standing. It is hoped that these will be preserved in the redevelopment which should be accompanied by further archaeological site work.

Grade C surviving structures (DoE grade II*)

(5) CHAPEL OF ST. BRENDAN

Brandon Hill

ST 579729

On the summit of Brandon Hill.

Hermitage chapel: founded by 1405. The site had been extensively disturbed by 17th-cent. fortifications (a scheduled AM); c. 1542 'defacyd'; 19th cent. Cabot Tower and landscaping (Warren 202-204).

Grade D

(6) CHAPEL OF ST. JORDAN

College Green

ST 583727

On the Green, the former BG of St. Augustine's Abbey. Likely to have been disturbed by 1939-45 war activities and the lowering of the area for the new Council House.

Grade C

(8) NUNNERY OF ST. MARY MAGDALEN

St. Michael's Hill

ST 58577330

By side of road going north out the city.

House of Augustinian Canonesses: founded 1173 by Eva wife of Robert Fitzharding; summary history (Graham 93); 1536 probably suppressed.

The buildings seem to have disappeared without trace, apart from some features not recorded when the site was cleared for the present King David Hotel, now standing empty. Possibly some archaeological deposits remain.

Grade C

CITY (ST. JAMES WITHIN)

(1) BLACKFRIARS

Quakers Friars

ST 592773

To the east of the new town of Broadmead.

1227/8 founded by Maurice de Gaunt; summary history (Graham 109-110); 1538 surrendered.

Two of the conventual buildings, possibly the dorter and infirmary, survive in good condition. Traces of the rest of the friary may be preserved below the surrounding roads and buildings erected since the war.

Detailed description with plan (Leighton 1933).

Baker's Hall and Cutler's Hall maintained by the City of Bristol.

Grade Ba (DoE grade I)

(2) GREYFRIARS

Lewin's Mead

ST 587733

In a confined site at the foot of the hill on the north bank of the Frome.

Pre-1234 founded at expense of townspeople; summary (Graham 110; Weare); 1538 surrendered.

The Corporation demolished some standing remains as late as

1915 (Pritchard 1920, 143-4). West part of site destroyed in building Greyfriars; but the site of cloister, chapter-house and part of the church was excavated in 1973 prior to the building of Whitefriars (Ponsford 1975). It is probable that further remains of the church survive under the present road, and ought to be examined if the opportunity arises.

Grade B

CITY (REDCLIFFE TEMPLE)

(1) AUGUSTINIAN FRIARY

Temple Street

ST 59417244

Just inside Temple Gate.

1313 founded by Simon de Montacute; summary (Graham 110); 1538 surrendered.

A small house of which no trace has been recorded. If any evidence does remain, it is probably under the Grosvenor Hotel or the complex of roads at Temple Gate.

Grade C

(3) CHAPEL OF THE HOLY SPIRIT

Redcliffe Churchyard

In BG of St. Mary Redcliffe.

By 1363 in existence; 1537 suppressed used as school house; 1763 demolished.

Site probably disturbed by burials.

Plan of schoolhouse 1717 (Williams).

Grade C

(4) FRIARY OF THE SACK

Redcliffe Mead Lane

ST 59397235

Pre-1267 founded; 1322 last mentioned (Graham III).

The site has been extensively used for commercial and industrial buildings. All traces if any survived were probably removed in 1970's in office development for Mardon Son and Hall.

Grade C

(5) HOSPITAL OF ST. JOHN BAPTIST

Redcliffe Pit

ST 59047238

At the north foot of Redcliff Hill outside the Portwall.

13th cent. founded; summary (Scott Holme 160-1); 1534 surrendered.

Site may be well preserved as Redcliffe Pit has been levelled up, most recently to build the approaches to Redcliff Bridge.

Grade C

(6) HOSPITAL OF ST. MARY MAGDALEN

Redcliff Hill

ST 59037215

At the south foot of Redcliff Hill.

c. 1470 mentioned by William Worcestre (Graham 119).

All traces were probably destroyed in post-war road widening and regrading.

Grade C

CLIFTON

(1) ST. ANDREW

In former village on summit of Clifton Hill.

Probably pre-Conquest church.

Mostly rebuilt in 1654 except west tower but demolished in 1822 after the completion of the new church adjoining. Site is now a public park grassed and planted with shrubs. Most later

burials seem to have avoided the site of the old church but there is evidence of earlier burials in the chancel. BG extensive partially cleared of memorials. Yard in good condition but there must be some root damage to the archaeological deposits.
Grade B

HENBURY

(1) CHAPEL OF ST. BLAISE Blaise Castle Hill ST 558783

On top of the hill, within the Iron Age hillfort. The problem of the identification of the chapels of St. Blaise and St. Werburghs have been discussed (Griffiths). Excavations in 1707 and 1918 uncovered the foundations of a rectangular building which has been identified as those of a chapel with an associated cemetery. Both are oriented east-west (Bartlett). Roman finds are prolific and strongly imply the presence of a Roman temple. Rahtz has suggested that the building may be this temple and the cemetery is of Dark Age date, in which case the chapel either occupied the same site or is elsewhere on the hill-top (Rahtz and Brown, 153-4; Rahtz et al 10).

The site is of immense archaeological importance. Further excavation would help clear the problems of its interpretation and may well show religious use from the Iron Age through to the 15th cent.

Although the site is within a public park, it is being ravaged by the illegal activities of treasure hunters. Further statutory protection or archaeological work is essential.

Grade A

(2) ST. LAURENCE Lawrence Weston

Precise site uncertain.

Chapelry of Henbury which gave its name to the settlement (Smith 133): 1287 ecc'l Sancti Laurencii (Ass 71d); 1463 ordinance (Hamilton Thompson 145); 1768 'now demolished' (Atkyns 249).

Site may still be under grass.

Grade C

(4) ST. THOMAS King's Weston Lane ST 542775

Opposite King's Weston House.

Chapelry of Henbury: c. 1291 possibly capella de Weston (Tax); 1463 ordinance (Hamilton Thompson 145); 1768 'now demolished' (Atkyns 249). Rectory to St. Augustine's Abbey; 1542 to see of Bristol.

Grade B

SS PHILIP & JACOB WITHOUT

(1) HOSPITAL OF ST. LAWRENCE Lawrence Hill

Precise site uncertain.

Leper hospital: 1208 foundation by John, Earl of Mortain confirmed; 1465 granted to Westbury College by Edward III; 1544 surrendered (Graham 119).

Grade C

WESTBURY-ON-TRYM, 1

(2) WESTBURY COLLEGE College Road ST 57267748

On south bank of the Trym, at foot of the hill on which the parish church stands.

c. 716 monastery probably founded; 824 confirmed to Worcester; c. 960 regular community of monks established by Oswald but was shortlived; re-established monastery c. 1100 secularised; 1125 regular Benedictine house; college established; 1455 college re-established and subsequently re-endowed by B. Carpenter (styled B. of Worcester and Westbury); 1544 surrendered (Graham 106-8).

An important site which seems to have occupied the area between the impressive surviving 15th cent. remains and the parish church. 15th cent. buildings damaged; 1874 remains purchased by public subscription; 1907 vested in National Trust (Wilkins 17-33); part of site excavated in 1968 and 1970 prior to redevelopment for housing. Archaeological work demonstrated that Carpenter's work overlaid a 13th cent. building and part of a pre-Conquest BG. The rest of the area is overlaid by housing.

Plan and summaries (Wilson and Hurst 1969, 244-5; Wilson and Moorhouse 1971, 138-9).

Surviving remains in good condition.

Grade Ba (DoE grade I)

WESTBURY-ON-TRYM, 2 (REDLAND-STOKE BISHOP)

(1) CHAPEL OF ST. LAMBERT Durdham Down ST 57237493

At top of Blackboy Hill.

Mentioned as a boundary marker (Warren 207-9).

Site probably under grass.

Grade C

WHITCHURCH

(2) FILWOOD CHAPEL Possibly ST 591690

Associated with grange of Keynsham Abbey and possibly with earlier village site.

Site levelled.

Grade C

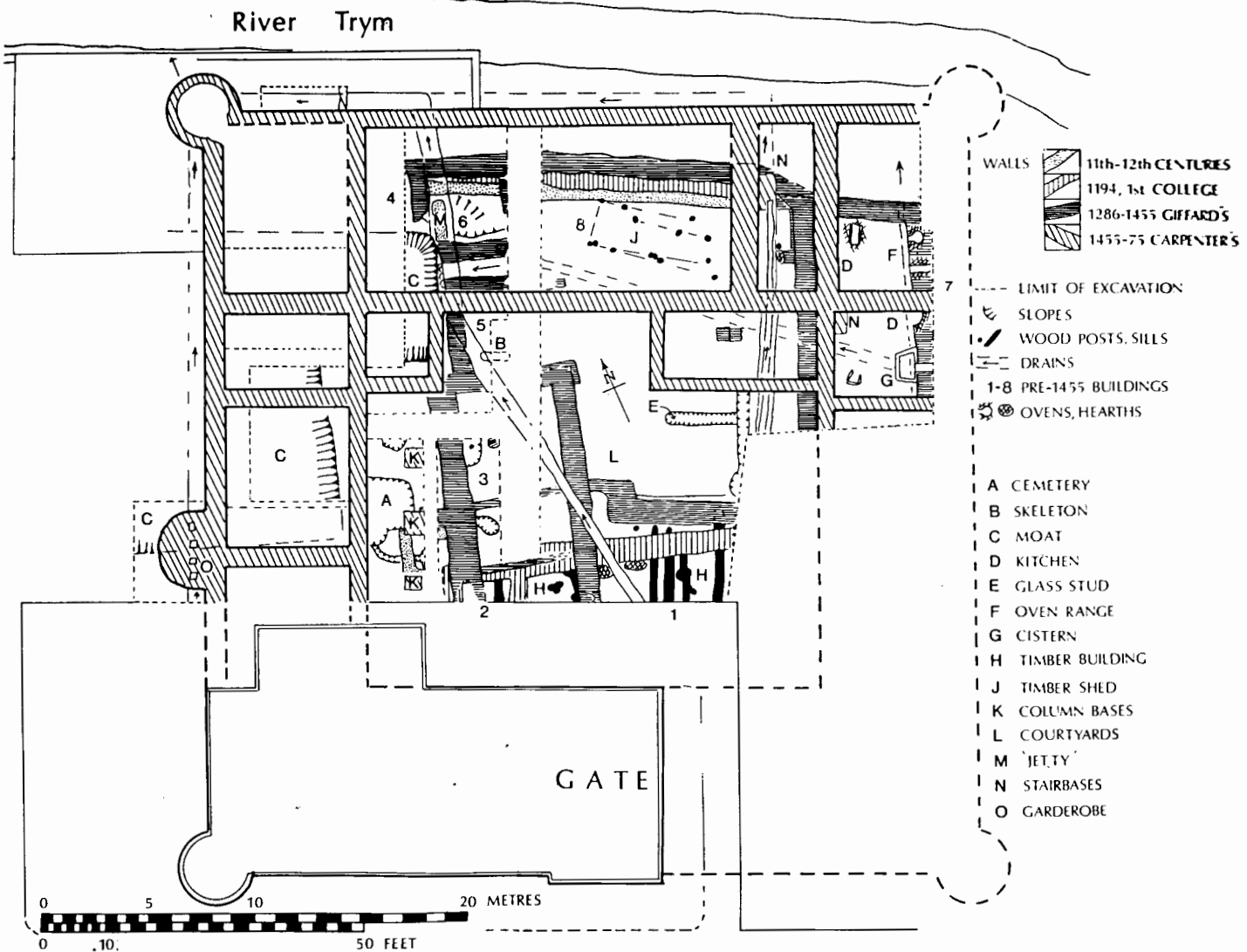
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EXCAVATIONS AT WESTBURY COLLEGE, BRISTOL

M W Ponsford

The City Museum, Bristol, carried out extensive excavations at Westbury College, Westbury-on-Trym (ST 573774), prior to the building of Westminster Court. Although a plan and summary of the work of 1968 was published (Wilson and Hunt, 1969, 244-5), only a summary of the second season (in 1970) appeared (Wilson and Moorhouse, 1971, 125, 138-9). It has been thought useful as an

WESTBURY COLLEGE, EXCAVATIONS, 1968-70, PLAN.



adjunct to David Dawson's article on Bristol's medieval churches to publish the plan and these notes.

Westbury cannot be ignored when discussing the ecclesiastical history of the BARG region. Only Bath receives an earlier mention and the area was clearly important to the development of Christianity in Saxon England. The development of the site is summarised below.

Period I pre-8th century

A few neolithic flints, and Roman coins and pottery were found, but no structural evidence.

Period II 8th-12th centuries

The earliest reference to Westbury is for c 692, although the most positive suggestion that a church was established there comes from c 717 (for the monastic history see Taylor, 1899, and Page, 1907).

The first recorded settlement at Westbury was the Benedictine monastery founded by Bishop Oswald of Worcester (Bristol was the southern edge of that diocese) and administered by Germanus (961-974). At this time, in the wake of Viking destruction, Westbury was one of only three monasteries in England (the others being Glastonbury and Abingdon). Bishop Wulfstan restored the monastery in 1093 but this was terminated once more by Sampson, only for monks to be introduced in the 1120's.

Structural evidence of the partially monastic period exists in the form of timber buildings (H on plan), a cemetery with only one surviving male skeleton (B) and a few human fragments from other pits (A), a stone 'jetty'

(M) and a riverside wall against the Trym. The buildings may have belonged to any of the monastic settlements or to intervening secular use, a problem yet to be resolved one way or the other.

Period III c 1194-1286

The first college of priests was founded by Bishop Celestine of Worcester c 1194 (Wilkins, 1917). Part of a cobbled courtyard (L), a new river wall and a few subsidiary walls on the south probably belong to this period (buildings 1 and 2).

It is thought that most of the burials were removed from the cemetery to the present churchyard to make way for the new buildings and that the original church was nearer to the college.

Period IV c 1286-1455

Bishop Giffard's general expansion of the college and attempt to turn the church into a cathedral left considerable archaeological evidence (for the history of the attempt see Page, 1907 and Wilkins, 1909 and 1917). A fine kitchen (?), ornamental moat (C), timber shed (8) and priests' house were added during the course of the 14th century as well as yet another, very substantial river wall and a modified courtyard (L with new wall).

Period V c 1455-1544

The college was eventually rebuilt by Bishop Carpenter from c 1455 and took about 20 years to complete. One wall was only built to foundation level, suggesting modifications to the plan (left of D). Carpenter managed to increase the number of canonries and received Papal assent to the conversion of Westbury to a cathedral city. The building may have been paid for by the widowed merchant William Canynges, who died as dean in 1474. Parts of this college still stand including the monumental gatehouse, two turrets (and one in foundation in the river), part of the south range and part of the north wall. The quadrangular plan is similar to many Oxford and Cambridge colleges of the period but it is interesting to note that it dates from c 1194 at Westbury.

It is thought that the large northern room opposite the gate was the hall with a chapel to the west and kitchens to the east possibly outside the main buildings. Over the infilled moat was possibly a dormitory/library block with a garderobe tower (O).

Period VI 1544-present

After the reformation the Sadleir family were granted the property. It was partly destroyed by Prince Rupert in 1643 to deny its use to the enemy. This accounts for its fragmentary condition today although the rebuilt West Range was destroyed in 1967. The remains are now in the care of the National Trust while Bristol Old People's Welfare own or lease the site of Westminster Court.

The full results of the excavation will be published as a Bristol Museum Monograph.

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FURTHER INVESTIGATIONS AT
ST JOHN THE BAPTIST CHURCH, BEDMINSTER

R G J Williams

I found the article by David Dawson in Rescue Archaeology in the Bristol Region (Bristol City Museum, 1979) about St John the Baptist churchyard, Bedminster particularly interesting; it included a reference to a gravestone of my wife's ancestors, the Toveys. This rather unfashionable and neglected area has been swamped by suburban growth over the past century, but it is surprising how much of the layout of the medieval village remains. The area is of special interest because there was probably a Saxon minster church in Bedminster. I have recently discovered several features in the vicinity which are visible indications of more recent times, but I am sure that there is much still to be learned about the area.

The site around the old churchyard of St John the Baptist occupies a prominent position in the southern approaches of two ancient crossing points of the river Avon. The early settlement may well be situated on the slightly higher ground just above the 50 ft contour. There has been very little archaeological work in the district, but a number of exposed sites will be available soon for rescue operations when the Bedminster Local Plan is implemented.

The previously unrecorded features I have found are as follows:-

(1) The footpath to the north-west side of the churchyard runs between the present St John's Street and Church Lane. The wall on the churchyard side, which is topped by railings, appears to date from the construction of the last church in 1854. However, the outer wall is that shown on the plan and dates from the date of the late medieval church. Set in this wall, about 6 m north-east from the junction of the present Church Road (formerly George's Lane and Barton), is a stone tablet measuring 0.66 m x 0.48 m, and is 0.54 m from the ground. There is an oblong inset cut into the stonework and I can remember that until recent times it held a wooden notice declaring that, although the path was a public right of way, it remained the property of the Church Commissioners. The removal of this notice board has revealed a faded inscription which I have been unable to decipher, except for the word 'publick' and the date (Ju)ly, 1713. Seven metres further along the wall towards Church Lane, is a blocked up gateway with freestone jambs surviving in a fairly good state to a height of 1.2 m.

This stretch of wall used to bound the garden of Church House, which was pulled down in the last century. This prominent 17th/18th century dwelling in East Street is fully described by L G W Vear in his book South of the Avon (1978). The gateway was a private access to the churchyard and the stone tablet was either a former notice or part of a gravestone.

(2) Recent excavations by contractors who are laying out the churchyard into a pleasant park have exposed a vault. This has a stone slab (1.2 x 0.8 m) bearing the inscription 'Sacred to the memory of (M)argaret the beloved wife of Gideon Moore. Departed this life July 20th 1868 aged 53 years'.

(3) Whilst renovating the outside of the south-east wall adjacent to the newly built flats a mason has utilised a stone (0.20 x 0.15 m) bearing the inscription 'M Jenks 1853' which is probably part of a gravestone.

BEDMINSTER. Circa 1820.

Probable extent of Medieval Village
also possible site of former Saxon settlement.

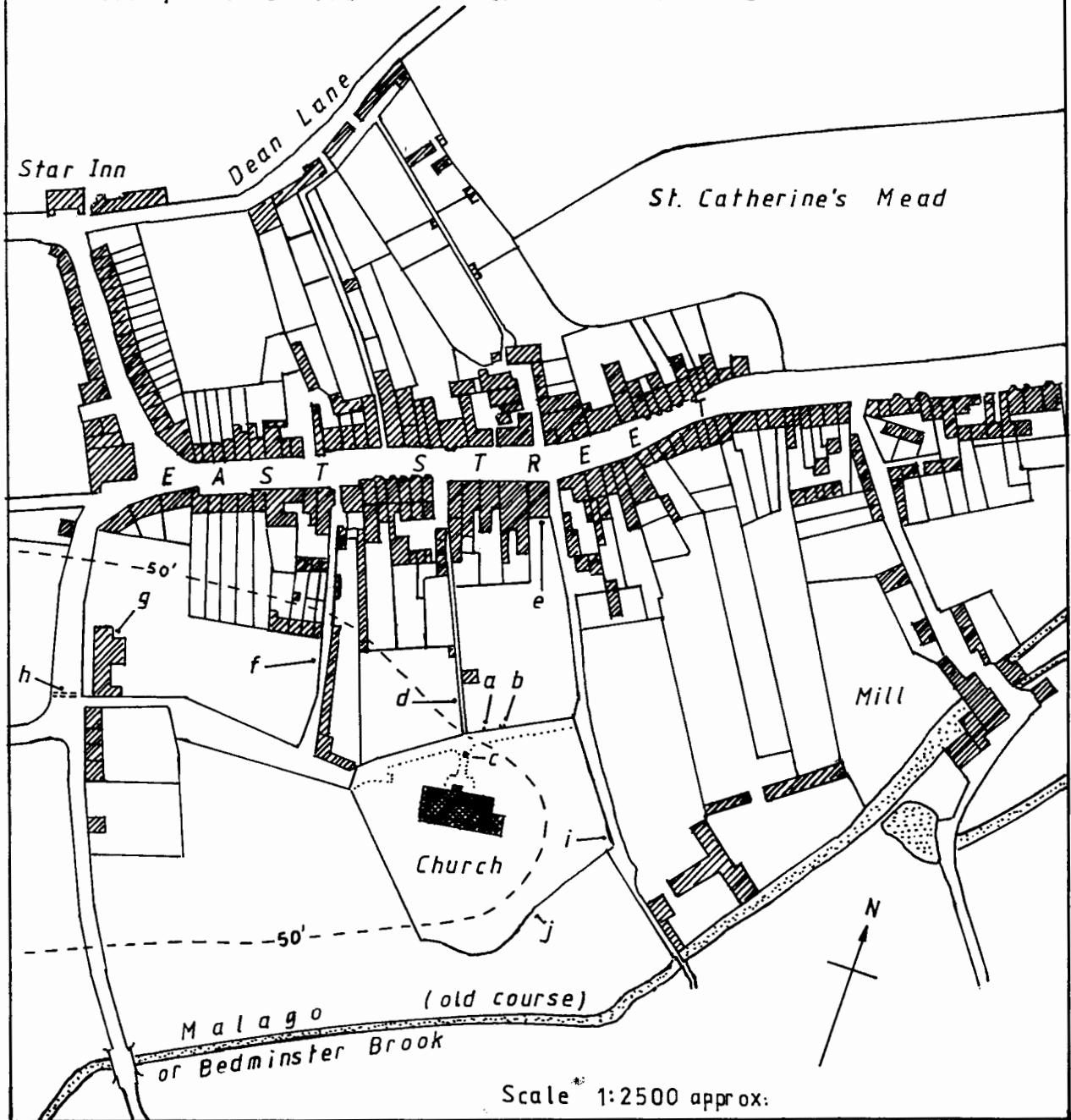


Fig 1 Bedminster c 1820. This plan is based on Ashmead's Map of Bristol 1828

- | | |
|----------------------------|----------------------------------|
| a Stone tablet (1713) | f Church Way (now Norfolk Place) |
| b Blocked gateway | g Old Parsonage |
| c Plinth (med) and cross | h Bedminster turnpike |
| d George's Lane and Barton | i Gravestone (Moore) |
| e Church House | j Stone (M Jenks) |

BIRDCOMBE COURT, WRAXALL, ST 479718

E H D Williams and R G Gilson

This account amplifies and in some respects corrects two brief descriptions of Birdcombe Court (Bismanis, 1977 and Cooper, 1977) published recently. Points of difference are listed at the end (see notes).

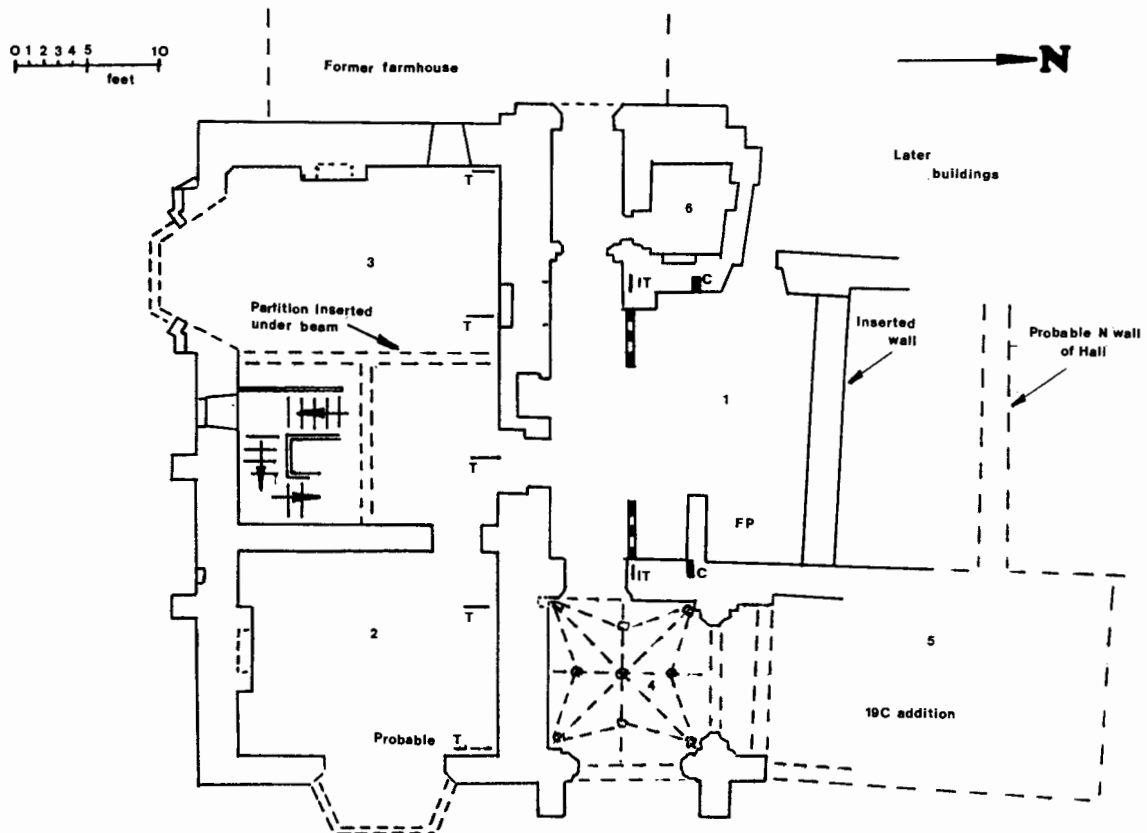


Fig 1 Plan of Birdcombe Court, Wraxall

Summary

In the midst of later buildings the partial remains of a medieval house retain one true cruck truss of a three bay hall and evidence for intermediate trusses; despite alterations to the main truss it can be seen to have incorporated features that are, within the limits of existing knowledge, unique in historical Somerset and probably within the British Isles. The centre one of three side purlins was set square (not in the plane of the roof) as are the roof plates of base cruck trusses; these 'roof plates' were notched into the under side of the blades and trapped between an upper and lower collar (or tie beam). Double ties are another base cruck feature found only in early examples not later than the 14th century, (Alcock and Barley, 1972) and this is not an unlikely date for Birdcombe where the present cross wing at the south end is a 15th century rebuilding of the original low end solar over service room(s); coeval with this rebuilding was the addition of the lower floors of a tower porch which was later raised to five storeys. The hall was ceiled when a fireplace replaced an open hearth in the 17th century. There have been 19th century modifications and additions, the latter including a new range at the north-east corner. To the west and north-west are further late buildings incorporating service rooms and an initially separate farm house; it is probable that the earlier service rooms and detached kitchen stood in this area. For a description and discussion of the various forms of cruck trusses see Williams and Gilson (1977).

Description

The core of this large and complex house is a hall (room 1, fig 1), 19 ft wide aligned north to south, now reduced to about two thirds of its original length of about 32 ft including the screens passage, and a cross wing at the south giving a T plan (note 1). The wing contains two rooms (2 and 3) of which the west room (3) is divided by an inserted partition; the rear half is now part of a separate dwelling in what was originally a detached farm house to the west. To the north and west of the hall are later additions where possibly once stood a detached kitchen and service quarters (neither of these is included here). At the front (east) of the screens passage, in the angle of hall and wing, is a five storey tower porch with an ogee dome (note 2). To the north of the tower and east of the hall is a 19th century addition (5), (also omitted here).

The porch in the base of the tower has an embossed, vaulted ceiling and wide four centred moulded arched openings on the east and north sides (fig 2); square set buttresses are of the same style as on the south of the wing. On the first and second floors the walls are 30 in and 27 in thick respectively and the windows are two light cinquefoil and two light trefoil respectively, rebated for shutters. On the third and fourth floors the walls are only 21 in and 19 in thick and the windows are modern in plain chamfered square headed stone frames. The first floor room has a small fireplace with a large flat stone lintel, the plain chamfers of which continue down the jambs to 45° stops; the room is entered through a four centred stone doorway, moulded hollow/step/ogee, with 45° stops from a gallery over the screens passage. Another deeply four centred doorway with the same moulding leads into narrow spiral stone stairs, built into the wing wall which is 34 in thick. The doorways into the upper rooms from the stairs are plain chamfered with 45° stops; above the second floor the stairs are in a turret external to the tower, and the third and fourth floor rooms are almost certainly additions to an original three storey tower (note 2). It seems possible however that the original tower had a flat roof to which the stairs continued. The ogee domed roof has eight ogee curved principal rafters meeting around a short central timber; the purlins are tenoned into the principals; common rafters are in two lengths curved to the shape of the dome. Together with the upper floors it probably dates from the late 17th or early 18th century.

On the south side of the wing early windows survive as follows: on the first floor towards the east end a two light, in the centre a single light, both cinquefoil headed; near the west end a two centred double light; the first is blocked by the inserted stack of the fireplace in room 2. At an intermediate level in the centre a single light cinquefoil headed window lights the stairs; all are hollow moulded in ogee frames. To the east of the latter on the ground floor is a plain square headed large slit window. Four buttresses with double offsets are evenly disposed starting at the east end, but at the west is a blank length of wall where a fifth buttress has probably been removed by later rebuilding.

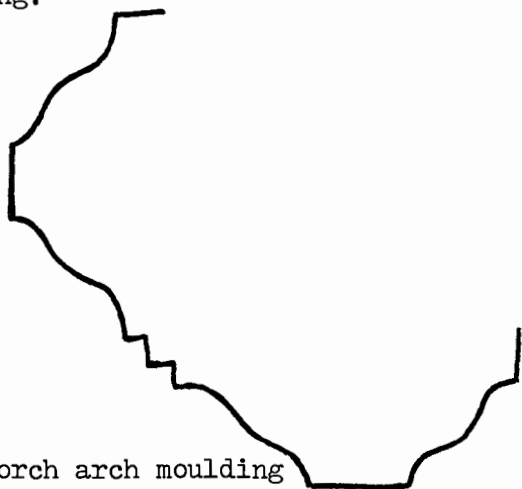


Fig 2 Porch arch moulding

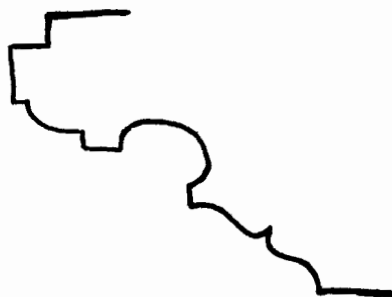


Fig 3 Door moulding

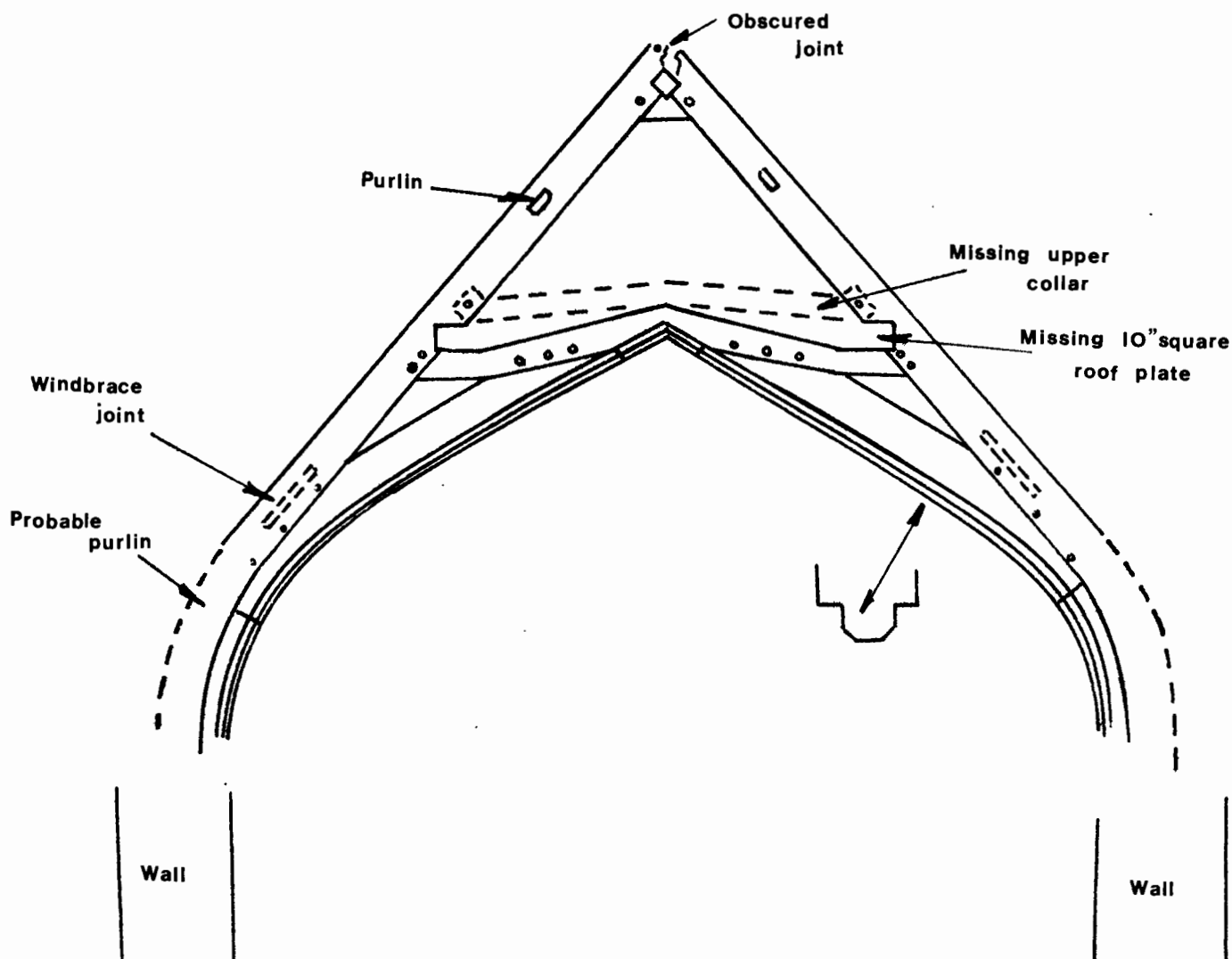


Fig 4 Hall cruck

The door from the porch into the passage is two centred and moulded (fig 3) under a bulbous dripmould which follows the curve of the opening and has carved square terminals. At the opposite end of the passage in line with the rear wall of the hall is a wide two centred plain chamfered doorway, beyond which the passage continues to an outer door level with the end of the wing. Off this extension of the passage a narrow two centred door, moulded hollow/step/ogee, leads into a small room on the north side furnished as a chapel (6), it is now only of one storey but its shallow sloped roof is not original and it is possible that this was formerly the base of a stair turret.

In the wall between the passage and the wing (which is 44 in thick on the ground floor compared to the 34 in on the first floor) are two doors (one blocked) with flat peaked heads and plain chamfers of a style later than any others. On the hall side of the 5½ ft wide screens passage the screen has been removed but the head beam remains; it is cambered and moulded with a dentillated upper edge. The stud and panel screens were only 3½ ft long at each end leaving a 10 ft wide opening in the middle; the remaining 2 ft is occupied by a thick stub wall at the rear. Close to this is a blocked door into the 'chapel' (6) which supports the suggested stairs here. There is no evidence to show that early stairs existed elsewhere and accordingly the gallery over the passage must have existed to give access to the tower rooms from the date of adding the tower (see later). These stairs could however have given access direct to the first floor of the wing at the west end where (not seen by us, but recorded by Bismanis) there was an ante-room divided from the solar (note 3). This extension of the screens passage, and the gallery over, beyond the width of the hall is however most unusual and perhaps it and the 'chapel'/stair turret are additions coeval with the building of the tower (see below).

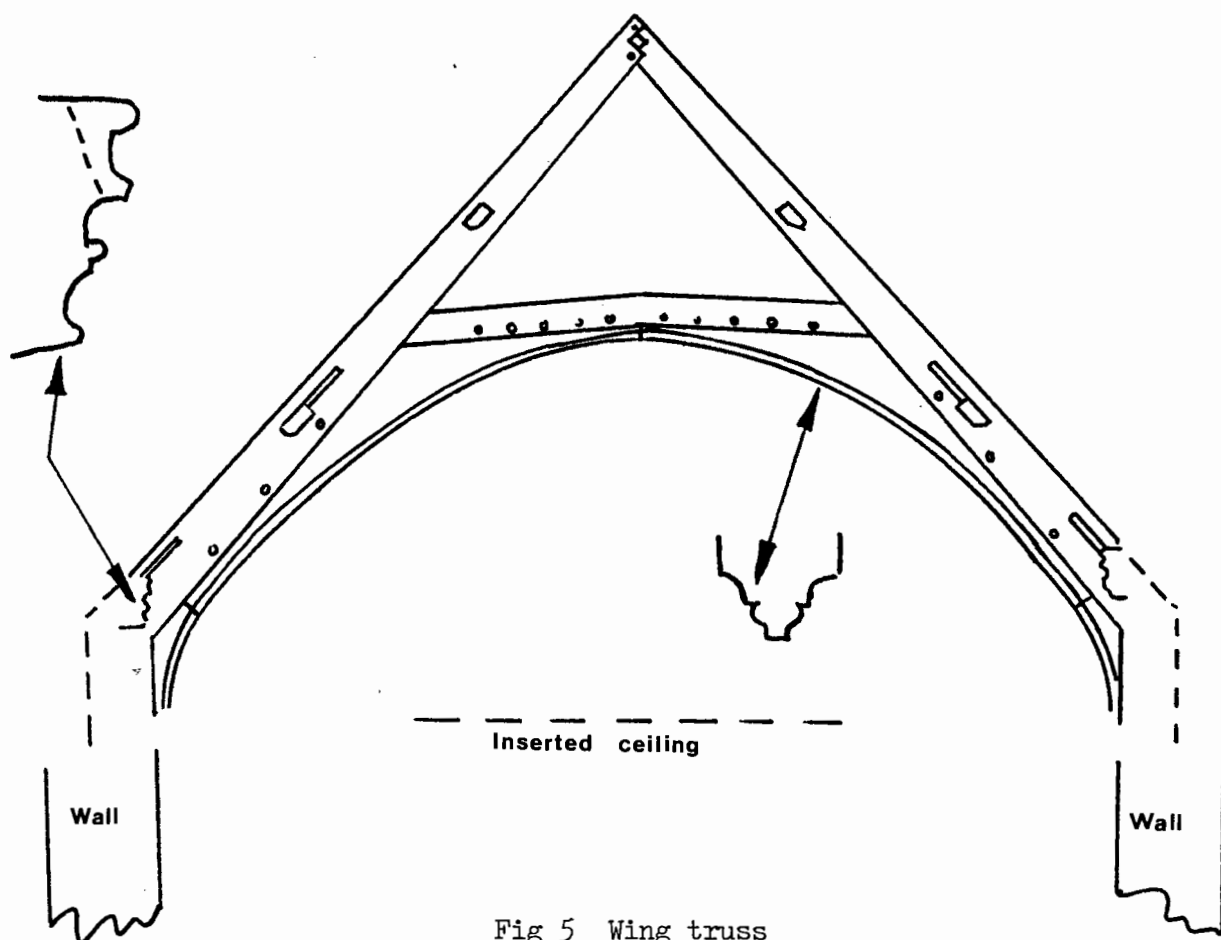


Fig 5 Wing truss

The hall, now only two thirds of its original length, has an inserted 21 in wall at the north end; (in contrast to the 32 in side walls). This has replaced a missing roof truss. The original length of about 30 ft is indicated by some thick masonry within the later building to the north. One true cruck survives at 10 ft from the wing wall; tenoned into the blades were a pair of collars but the upper one has been removed; the surviving lower one is extremely cranked (fig 4). A 10 in square roof plate, trapped between the collars and recessed into the blades, has also been removed. There is one row of purlins above the roof plate and probably another below them but details are hidden. Empty mortices show where windbraces from the blades to the roof plates have been removed. The apex joint is a yoke and there was probably a mortice and tenon joint above the trapped ridge, but this is obscured. Archbraces were moulded. Stopped chamfers on one surviving purlin show there was an intermediate truss in the south bay, and others may be assumed to have existed in all bays (note 3). Original timbers have heavy soot deposits on them. A mixture of later timbers have been substituted for the missing parts. The truss thus had all the features of an early base cruck of a type not normally found later than the 14th century combined with a true cruck - a unique structure so far as is known in the British Isles. Scroll stops to the lintel of the fireplace show it to be a 17th century insertion, a surprisingly late date for a house of this quality (note 4).

Of the wing roof four trusses survive (fig 5), all open and that against the west gable flat backed (note 5); they are evenly spaced and that towards the east end shows evidence that the roof continued to the end where probably was another flat backed truss, removed when the present 19th century hip was made at the front. Trusses are true crucks of elbowed shape and are not blackened; archbraces are moulded hollow/ogee. The ridge is enclosed by a double tenoned apex joint (note 6); two rows of purlins are chamfered on the under side and stopped by steps and run outs at the trusses; there is a moulded

dentillated cornice plate (note 5). Windbraces are in pairs in the lower panels and have incised cusping; in the upper panels they are arranged four to a bay, seating at mid length on an enlarged common rafter (note 3), and have plain chamfered curves (fig 6).

The differing styles of hall and wing roofs indicate a later date for the latter so that the wing is either an addition replacing an earlier, axial lower end or it is a reroofing of an original winged lower end (note 7); the former seems the most likely (see below). The buttress mouldings of wing and porch are similar so that the porch and present wing are coeval. The dripmould over the front door within the porch suggests the porch is later than the screens passage to the hall; a dripmould is not needed in this position, but Quinney (1977, 338) records that at Clevedon Court 'in the screens passage are three openings linked by their hood moulds'. However at Birdcombe the front door set off centre is perhaps significant, especially as at the south side the end of the dripmould is recessed into the side wall of the tower/wing. On balance therefore it is concluded that when the porch was added the original lower end was extended forward into a wing and possibly the rear wing extension together with that of the passage was made at the same time.

The wing roof is unlikely to be earlier than the 15th century at which date room 3 was a parlour with a framed ceiling moulded as is the hall screen head beam (only a part of the ceiling survives). The now divided room has an open well stair case of the 19th century in the eastern half, to accommodate which joists have been removed and the slots covered by a plank with applied decoration in the form of a dentil course. No earlier site for stairs in the wing is visible, but it is not impossible that there could have been spiral stairs within the otherwise inexplicably thick wall, but they would have been extremely restricted. The form of the lower end prior to the 15th century is unknown but a solar over service room(s) may be assumed as occurs in other Somerset houses of manor status (note 1). In the 15th century the upper floor became a grand chamber open to the roof.

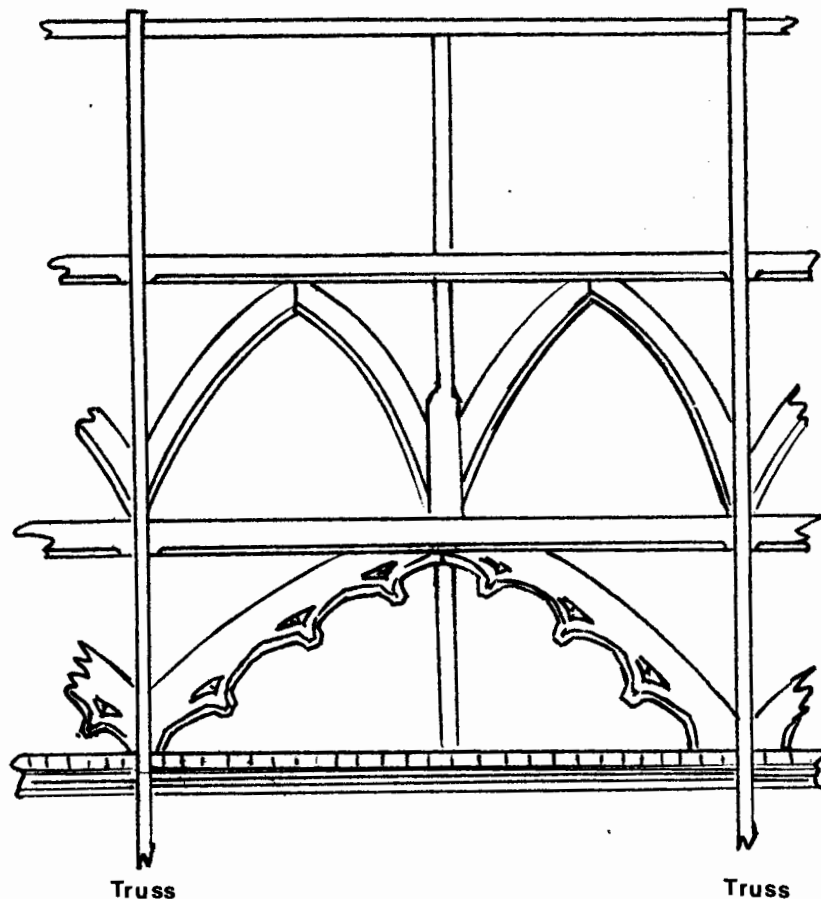


Fig 6 Wing windbraces

Acknowledgements

Grateful acknowledgement is made to Miss P Brimacombe of Woodspring District Council for drawing attention to this house, and in particular to the owner, Mrs MacDonald, for permission to examine the house.

Notes

- 1 Solar over service at the lower end, as envisaged by Cooper, is common in Somerset and not unusual as stated by Bismanis.
- 2 The tower is now of five storeys, not three as stated by Bismanis nor four as by Cooper; both date its building to the 15th century but the former dates the dome to the 18th century, the latter to the 16th century and the MHLG List merely states 'later'.
- 3 There was no spare truss in the hall and none has ever been seen in Somerset; if there had been one it would not have risen 'to the first floor only' as stated by Bismanis. There was an intermediate truss over the screen, and intermediate trusses are common in Somerset. There was, however no intermediate truss in the wing; that mentioned by Bismanis is a spreader between purlins and probably an insertion. At mid length of each bay there are thickened common rafters to provide seatings for the windbraces.
- 4 Contrary to Bismanis the hall fireplace is not early.
- 5 The wing roof is of four bays, not three, and there is a dentillated cornice plate not a castellated wall plate as stated by Bismanis; nor is the cornice plate battlemented as described by Cooper.
- 6 The majority of Somerset roofs have ridge purlins which is perhaps what Bismanis means by 'the ridge is of the type most prevalent ... in Somerset'; if he is referring to the apex joint then that shown in his drawing is neither typical of Somerset nor is it what exists at Birdcombe; his drawing also shows insufficient cusping to the windbraces.
- 7 Rebuilding of the wing, referred to by Cooper, is not mentioned by Bismanis.

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- Alcock, N W, & Barley, M W, 1972 Antiq J 52 (Part 1), 146
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EXCAVATIONS AT REDCLIFFE, 1980

Bruce Williams

THE REDCLIFFE PROJECT

One of the last areas of central Bristol to undergo a post-war face-lift is the suburb of Redcliffe. A large office block is now being built at the south end of Redcliff Street but ahead of this the Department of Archaeology and History, City Museum and Art Gallery, Bristol were able to undertake Phase 1 of the Redcliffe Project which is designed to investigate the origins and development of this once-wealthy area.

The 1980 excavations showed the great archaeological potential of this waterfront site. The Redcliff Street frontage appears to have been a dyeworks in the 13th and 14th centuries and there were quays along the line of the street called Redcliff Backs perhaps earlier than this. Along Freshford Lane (now closed) the probable end of the Portwall was found and further quay structures.

This presents exciting prospects for the remainder of the project. East of the 1980 site the structural evidence should consist almost entirely of quayside walling. Their infilling should contain a great deal of preserved organic material and even fragments of boats. Another site by Bristol Bridge (143-144 Redcliff Street) is also of enormous potential for similar reasons because there is a large chunk of standing medieval wall. It also includes the approaches to the bridge which might reveal some much earlier evidence for bridges. In an important port and market what could be more satisfying to a student of history than to discover the original version?

M W Ponsford

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REDCLIFFE STREET EXCAVATIONS, 1980

Introduction

The first stage of the Redcliffe Project was successfully completed in November 1980. During the excavation the BARG training dig was attended by 25 members over a two week period. The Open Day attracted 200 visitors who were officially shown around the site.

The excavation was carried out with four major objectives:

- (1) To establish the date of the earliest settlement.
- (2) Identify the sites of merchants houses which were known to line the streets of Redcliffe.
- (3) Locate the medieval defences (the Portwall).
- (4) Establish the nature of any industries, which are frequently recorded in documents, for the post-medieval period.

The main part of the excavation (fig 1) centred on two adjoining properties, 86 and 87, at the south end of Redcliff Street on its west side (ST 59087246). Some earlier underlying buildings have been interpreted as dyers' houses or workshops. The front of no 85 was examined by BARG while the rear of the same property was examined by Museum volunteers. At the west end of the site was a bakehouse (B 6) with associated oven. Beneath this was an early medieval slipway forming part of the Redcliffe quay. The Portwall, the back of a tower on it and possibly an early quay wall were also located.

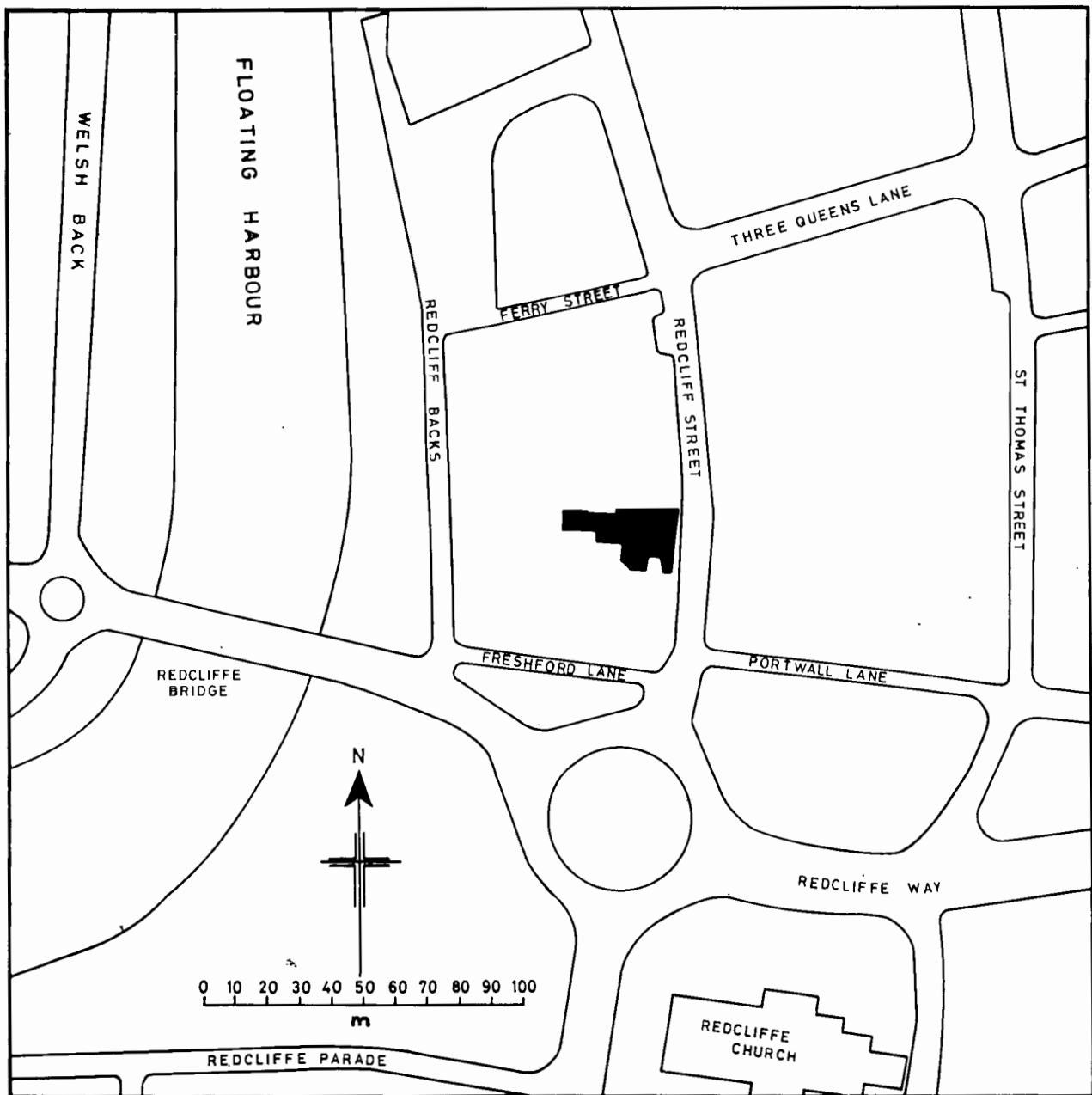


Fig 1 Redcliff Street: location of excavation

It is unfortunately impossible to illustrate all the periods represented due to the complexity of the site (fig 3). The major structural alterations can be shown while some of the lesser ones are mentioned in the text. The post-medieval buildings have also been omitted for clarity.

Historical outline of Redcliffe

The suburb of Redcliffe was independant of Bristol until c 1255 and part of the manor of Bedminster, which was then held by the Lords of Berkeley. By c 1200 Redcliffe was competing with the town of Bristol commercially and was assessed for taxation at an amount equal to the main port. Under pressure from the king the inhabitants of Redcliffe helped the Bristolians to excavate a new channel for the river Frome from what is now Lewin's Mead to Prince's Wharf (1240-47). Their apparent reluctance to help is probably accounted for by the fact that they would, in the short term, lose trade from their own quays on the south bank of the Avon.

During the later medieval period the suburb was split in two (from c 1250) by the Portwall which passed along Portwall Lane and north of Freshford Lane. In c 1480 William Worcestre described this wall as being 8 ft thick with a wall-walk 6 ft wide. A gate was built in the wall at the end of Redcliff Street. During that period Redcliffe was the home of many Bristol merchants,

notably the Canynges family; Canynges' house was at the corner of Redcliff Street and Ferry Street. The family was also responsible for the 14th-15th century development of the church of St Mary Redcliffe which, despite its pretentious scale, was but a chapel-of-ease to St John's, Bedminster until well into the 19th century. From the 17th and 18th centuries the area appears to have become more industrial as merchants moved out to the fashionable northern suburbs but they retained commercial interests there.

Redcliff Backs

The street known as Redcliff Backs was made between 1673 and 1707 to provide additional access to the extremely long medieval tenements between Redcliff Street and the quay. This street is the centre of an area of considerable archaeological potential. At the north end of Redcliff Backs where it joins Ferry Street are the remains of a standing and listed medieval building with two single-light windows. Further south there are the remains of medieval boundary walls on the east side of Redcliff Backs. The location of Canynges' house has already been mentioned.

While the accuracy of Millerd's map, dated 1673, is yet to be demonstrated archaeologically, it does, nevertheless give a clear indication of the topography of Bristol in the 17th century. He shows the east and west sides of Redcliff Street as being completely built up while Redcliff Backs is void of buildings.

The Portwall, perhaps the most noticeable feature shown on Millerd's map, curved around the south side of Redcliffe and Temple. He shows the wall as having two main gates, Redcliff Gate and Temple Gate and eight round towers. Hoefnagle's map, dated 1581, on the other hand, has a wall with four square towers and two round towers. He has also omitted a tower depicted by Millerd between Redcliffe Gate and the river Avon to the west. Millerd's representation of Bristol is generally accepted as the most accurate.

The Portwall was recently located during construction work on the site (fig 3). Its alignment to Freshford Lane (earlier known as Fiddlers Alley) is immediately apparent and this is confirmed by Millerd's map where it is shown as being curved, not straight. The width of this section of wall about 2 m below ground level was found to be 7 ft 11½ in compared with Worcestre's measurement of 8 ft. It was not possible to plan the wall or the back of the tower stone for stone, but observations made during their destruction produced some useful information.

The footings of the Portwall continued 9 m below the present pavement level and were the same width throughout. The wall was not founded on a timber raft as the city wall on Broad Quay is reported to have been by the site engineers. The wall was constructed mainly of Pennant stone bonded in soft, and now wet, red sandy mortar, while the back of the tower was of Brandon Hill stone and bonded in clay. It was traced in a north-westerly direction for a distance of about 13 m from its junction with Freshford Lane and terminated about 4.5 m east of the Western Counties Agricultural Co-operative Association offices at a cross-wall, 1 m wide. The top course of this wall was clearly post-medieval. What is significant however, is that this cross-wall was at right angles to the Portwall, not Freshford Lane. The implication is that this wall was associated with the Portwall but their exact relationship could not be established.

Excavation down the west face of the cross-wall showed it to have been well-constructed of Pennant stone in horizontal courses. At a depth of about 4 m below the present pavement level, the eastern wall face sloped back and revetted the natural blue clay while the western face was vertical. There was no indication that the Portwall had continued west of the cross-wall: the ground between the cross-wall and the WCA offices was excavated to a depth of 6 m in to the blue clay which lay against the west face of the cross-wall. This cross-wall may have been an early quay wall with river silt against it.

The tower was seen as an area of mainly Brandon Hill stone, about 11.7 m east-west, 6.5 m north-south and 6 m deep. Its back was located about 29 m west of Redcliff Street, immediately west of the junction of the Portwall with Freshford Lane. The depth of its foundations was the same as those of the Portwall, but the shape and relationship of the tower foundation to the Portwall could not be established.

The Slipway

Perhaps the least expected find on the site was a slipway of which only the east end was found. It lay relatively undisturbed beneath the bakehouse (B 6) at the west end of the excavated area (fig 3). It was not possible, however, to undertake full-scale excavation because it was found when trial-trenching during the back-filling of the site.

The slipway was aligned east-west, about 25 m west of Redcliff Street and would have extended to the quay on the west. It was constructed entirely of stone, was 15 m wide by 1.2 m deep and built into the natural alluvium. The floor of the structure was of large Pennant slabs which sloped back slightly and revetted the natural alluvium, as did the end wall of the slip. The south wall was less well preserved. A drainage gully 0.4 m wide, capped with Pennant slabs, ran south into the slip. At the south end of the drain and lying down the north wall of the slipway was a wooden post, 0.25 m in diameter, presumably a mooring post. There were two others in the floor.

The slipway is likely to be pre-13th century in date. Samples of wood taken from the upright posts in the slip have been submitted for dendrochronological analysis which should provide a more accurate date.

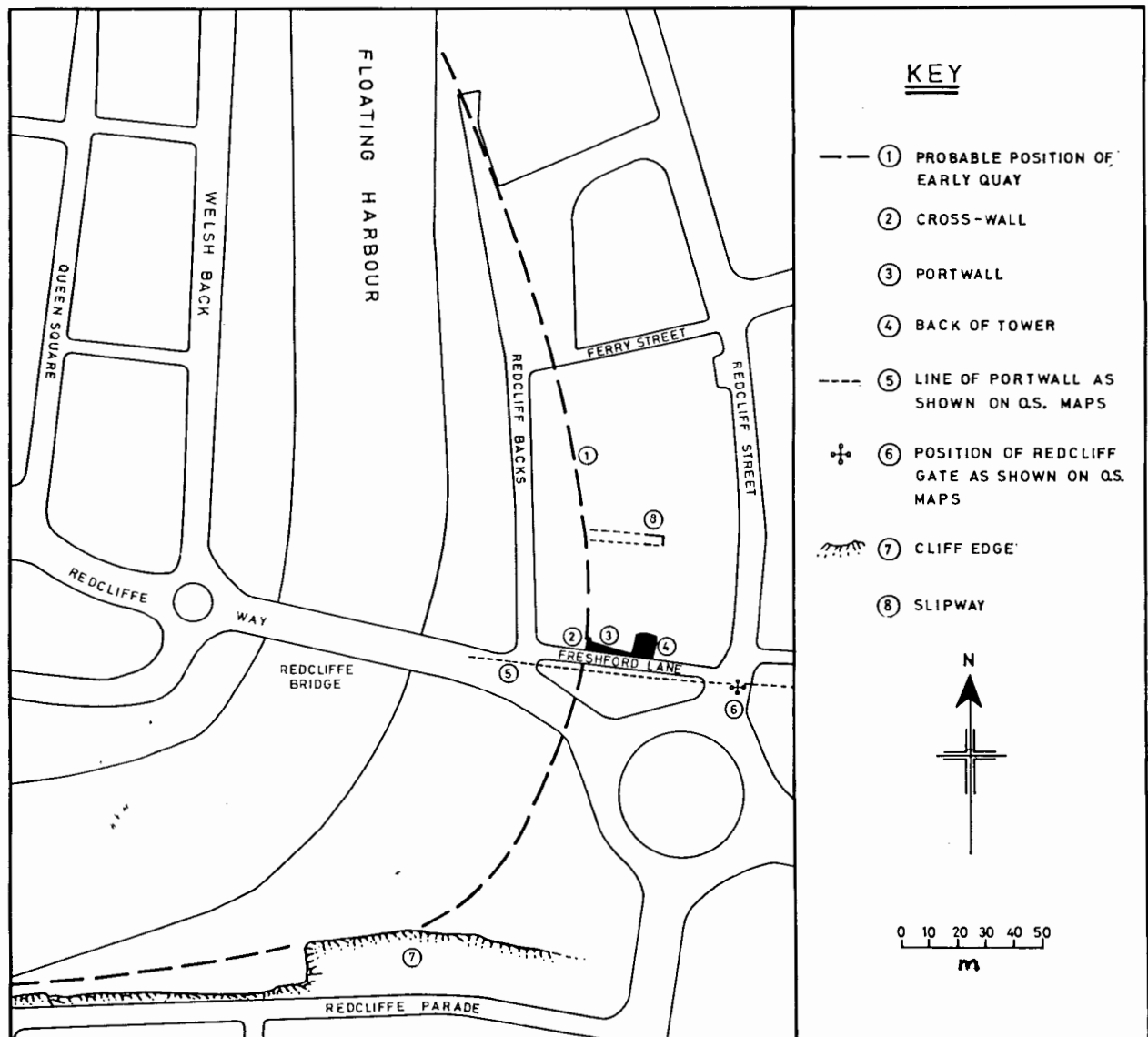


Fig 2 Redcliff Street: probable position of early Redcliffe Quay

Nos 85-87 Redcliff Street (fig 3)

A total area of 355 sq m was opened by mechanical digger and hand in a trench 34 m east-west by 20 m north-south. The frontage of no 86 and no 87 was void of cellars while the rear of no 87 was entirely cellared. Fortunately the cellars did not go deep enough to destroy the underlying medieval deposits. No 85 however, was completely cellared to a depth of about 2 m and very little stratigraphy had survived. It was not possible to completely excavate no 86 or no 87 Redcliff Street; however, the development of no 87, from the early 13th century, and no 86, from the early 14th century, was traced.

Period I early 13th century

The earliest structure identified was building 1 (B 1) beneath no 87. It was rectangular, 9.2 m east-west by 5 m north-south and was built of Brandon Hill stone. This building was completely exposed apart from the east end which lay beneath the pavement. The building was one-roomed (room 1 = R1) and was entered through a door, 1 m wide, in the north wall, probably by way of an alleyway off Redcliff Street. The building may also have been entered from Redcliff Street but it is unlikely that a building of this size would have contained two entrances. B 1 was probably a house. Against the west wall was a hearth 1.8 m square, built of pitched Pennant stones. The hearth stones showed extensive signs of burning and the surrounding area and most of the room, was covered in fine, compact ash. Very little domestic waste was found in the building but finds in a large sub-rectangular pit which was itself highly organic, outside the south wall, included woven leather, many shoes (children's and adult's), fragments of leather garments and leather off-cuts. This pit was in the garden beneath B 5 and the main drain running east-west (Period IX).

Period II mid 13th century

B 2, R 2, was erected against the west end of B 1 with its north end projecting 1 m north of B 1. The north wall of this building was extensively robbed but the surviving walls, 0.8 m wide and built with Pennant stone and Brandon Hill stone, were well-preserved beneath the later cellars. The internal junction of the south and east walls was supported by a stone buttress. The method of construction of the superstructure may be indicated by a number of stake-holes, provisionally interpreted as scaffold poles.

Access to B 2 was gained through a doorway in the west wall. There was no indication of a connecting doorway between B 1 and B 2.

Period III mid-late 13th century

R 3, abutting R 2, was comparable in size and construction. The two rooms connected by way of the doorway in the west wall of R 2 (see above). A drain chute (not illustrated) was built through the south wall next to the internal dividing wall. It sloped down to the south beneath the base of the Period IX drain, presumably to an earlier drain.

Period IV mid-late 13th century

B 3 was probably earlier than B 4. It was certainly earlier than the main east-west drain of Period XI which may have been contemporary with Period VII.

B 3, R 4, lay beneath R 9 and R 10 of B 5 to the east of the garden area associated with B 1, and 1.7 m south of B 1. The two walls of B 3 were of slight construction. The superstructure was probably of wattle and daub. The external west wall was not found. It may have been destroyed by B 5 or the building may have been open at its west end. The remains of two hearths were found (not illustrated). Large deposits of ash and charcoal over the south wall might suggest that B 3 was destroyed by fire.

Period V mid-late 13th century

A wall, 0.6 m wide by at least 2 m in length, abutted the west end of

REDCLIFF STREET, BRISTOL 1980 - MEDIEVAL STRUCTURES

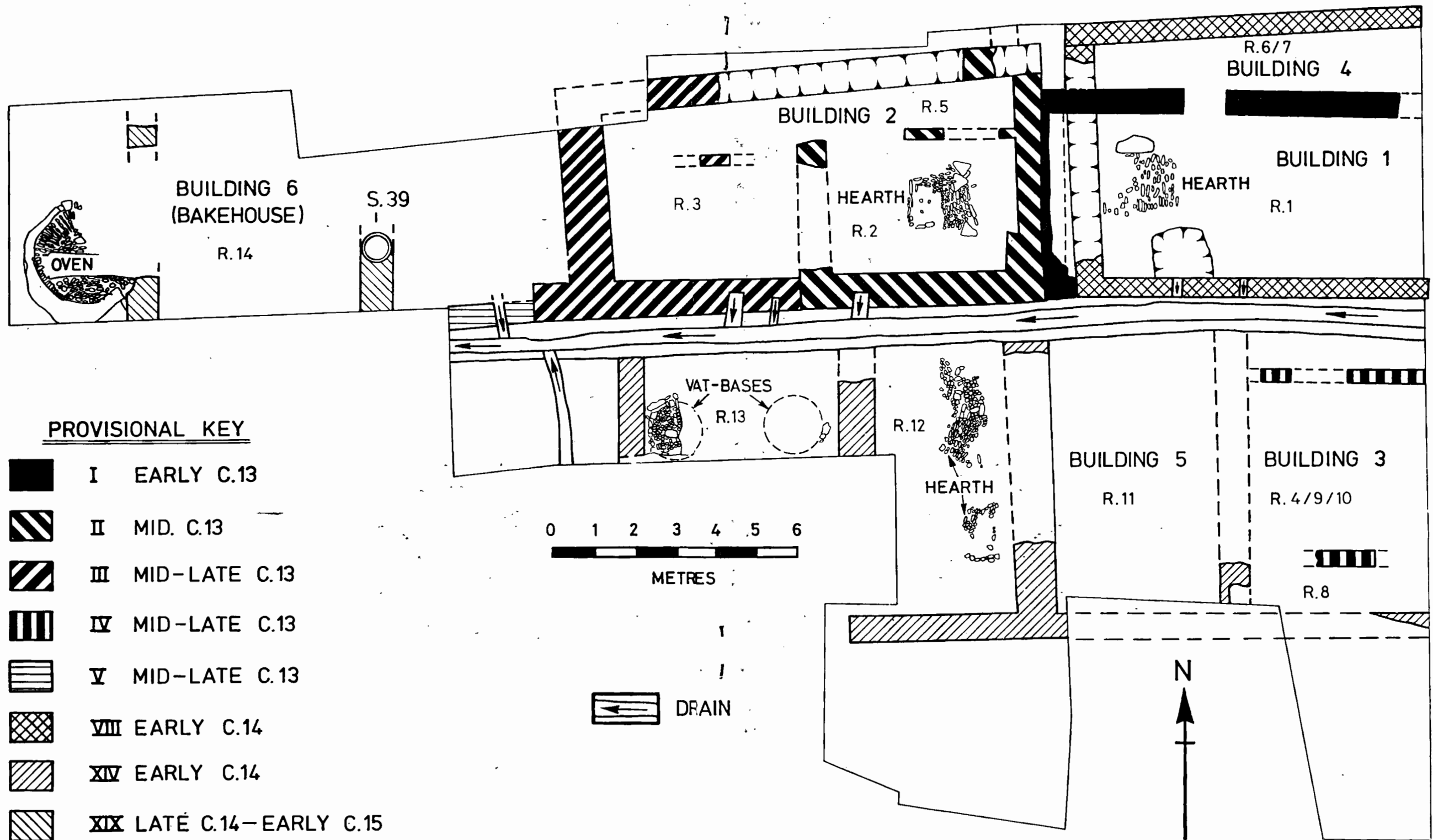


Fig 3 Redcliff Street: excavation period plan

the external buttress at the south-west corner of R 3. The wall revetted the yellow/brown clay overlying natural and probably served as a boundary wall.

Period VI

B 1 was completely demolished in Period VI. The debris covered much of the interior and exterior of the building but did not overlie the Pennant hearth. This was retained and incorporated into B 4, Period VIII.

Period VII (not illustrated)

The east wall of R 2 of B 2 was demolished and replaced by another on the same line. This wall slightly overlay the west wall of B 1. A doorway through the north end of this wall may have led to an adjacent doorway in B 4 giving access to R 6 (see below Period VIII),

A passage (R 5) was constructed east-west through the north end of R 2 and R 3 of B 2. The internal passage wall was probably of timber, the sill beam gully having been excavated in R 2 and clearly visible in R 3.

Period VIII early 14th century

This important period demonstrates the initial character of the industrial use of B 4 and B 5. It saw the replacement of B 1 with B 4 which fronted onto Redcliff Street. The foundations of the south wall of B 1 were reused in B 4. The north wall of B 4, however, was built further north to line up with the north wall of B 2. The front wall of B 4 was almost certainly of timber. The east end of the north wall stopped square on the pavement edge and there was no returning south stone wall. B 4 comprised one main room on the ground floor (R 6) and a passage (R 7) about 3 m long along part of its north side. The west end of the passage opened into R 6. The internal wall of the passage was of wattle and daub.

The hearth retained from B 1 was reused in B 4. Two contemporary drain shutes were constructed through the south wall of B 4. Their openings, 4.3 and 5.3 m west of the front of B 4 led into a substantial drain to the south (see below, Period IX).

Probably contemporary with these drain shutes in B 4 was a pit 1.4 by 1.2 m against the north face of the external south wall. This pit lay directly below the western-most drain shute, had vertical sides, 0.35 m deep, and was contemporary with the use of the hearth. This pit probably contained a large vat or some other container for holding water. The drain shute above was an integral part of the complex.

Period IX

This period saw the construction of a substantial stone-built drain which ran the entire length of the site along the south side of B 2 and B 4. It probably began at Redcliff Street and led to the river Avon to the west. The base was of very large roughly rectangular Pennant stones over a massive stone foundation. The walls were also of Pennant stone while the original cap-stones were missing. The drain shutes in B 4 and B 2 led into this drain (see above Period VIII and below, Period X).

Period X

The early drain shute in R 3 went out of use and was replaced by three others, two in R 3 and one in R 2, all of which issued into the Period IX drain.

Period XI (not illustrated)

The period VII east wall of R 2, B 2 was demolished and a cess-pit built through it at its junction with the south wall of R 2, Period II. The north wall of the main drain was chamfered so as to prevent blockages. The west wall of B 4 became the east wall of the enlarged B 2. A possible doorway through the north end of this wall would have connected B 2 to B 4 reflecting the expansion of B 4.

Period XII

A square central hearth of two periods was built in R 2. A cooking pot set in the floor at one corner of the hearth contained fragments of charcoal and was noticeably burnt. This was probably used as a retainer for hot coals in order to relight the fire. Another contemporary hearth (not illustrated) was located in what was the doorway in the Period VII eastern wall of R 2. This hearth was incomplete but was probably circular in its entirety. A stone wall, two courses high, was intact around its south side.

Period XIII (not illustrated)

The main B 1/B 4 hearth went out of use and was replaced by another at the junction of the south and west walls of R 6.

Period XIV early 14th century

Building 3 probably burnt down and was replaced by B 5 which lay over it and the Period IX drain. B 5 abutted B 2 and B 4 and fronted on to Redcliff Street. It had a rectangular plan, 19.5 m by 8 m externally and contained six rooms including a passage off Redcliff Street (Rs 8-13).

The passage (R 8) ran east-west along the south side of B 5 between Redcliff Street and the east wall of R 11. The internal passage wall was probably of wattle and daub. No connecting doorway between the passage and R 9 was identified in this wall. R 9 and R 10 lay north of the passage and were separated by a narrow partition wall, again probably of wattle and daub over a stone sleeper wall. The floors in both rooms were of mortar.

A central east-west gully, possibly the construction trench for a timber sill, may have divided R 11 in two. No doorway was found from R 8, 9 or 10. A fragmentary hearth was identified immediately east of the west wall of R 11. West of R 11 was R 12. This was the narrowest room in the building measuring only 3 m wide. However, despite its small size, it contained two hearths, one sub-circular and the other rectangular. The rectangular hearth in the north of this room was of three phases. It seems to have begun as a circular hearth against the east wall of R 12 but was twice rebuilt as a rectangular hearth. The latest period of the hearth is illustrated. The sub-circular hearth in the south part of R 12 was delineated by a curved stone wall, two courses high, around its south side.

R 13 was the rear room of this property. It probably had its entrance in the south-east corner through the main south wall. The southern half of this room was cellared. The northern part contained two circular vat-bases, one against the exterior west wall and one opposite it against the interior east wall. The bottom of the western vat-base was virtually complete and was surrounded by a narrow stone wall, two courses high. It had an internal diameter of 1.2 m. Little survived of the eastern example.

At the rear of R 13, presumably in the garden, was a Pennant stone drain that led into the main Period IX east-west drain. It curved slightly to the east and probably began at R 13.

Period XV

The cess-pit in the south wall of R 2, B 2, went out of use and was blocked with rubble. The north wall of the main drain to the south into which the cess from the pit flowed was blocked and a doorway was built over it, through the south wall of B 2. This doorway connected B 2 directly to B 5.

Period XVI

The western circular vat-base in R 13, B 5, was rebuilt and made smaller, 0.8 m diameter internally.

Period XVII

S 39 at the rear of B 2 was probably associated with the industrial use of B 2 and B 5. It was certainly earlier than B 6 (bakehouse). S 39 has

been interpreted as a cistern for containing water. It was built entirely of stone, the inside of which was rendered and had an internal surface diameter of 0.84 m. The sides tapered in on an angle of 20° to the base which was of Pennant slabs. These slabs also formed the top of an earlier stone drain (not illustrated) which sloped down from close to the south-west corner of B 2 to beneath B 6 and on beneath the extreme west section. There was no indication that the drain and S 39 were connected.

The east end of the drain was destroyed by a modern tunnelled sewer and its direct relationship to the main east-west drain could not be established. A series of metallised surfaces covered the yard between S 39 and B 2.

Period XVIII

The internal partition between R 9 and R 10 of B 5 was demolished and replaced by another 0.6 m to the west. A gully in R 9 along the south side of the partition contained fossilised faeces (coprolites) and a row of stake holes to the north of the south wall probably supported a bench.

Period XIX late 14th-early 15th centuries

An important structure at the west end of the site was B 6 (R 14) which has been interpreted as a bakehouse. This building was rectangular and built of stone. The east wall overlay S 29 while the west wall was directly associated with a substantial oven.

The oven was of two periods; the earlier period being incorporated into the later. The earlier oven was 1.7 m in diameter and was built of narrow Pennant stones pitched east-west. The later period oven was an enlargement on the west and north sides of the earlier by 0.5 m thereby increasing the baking area to a diameter of 2.2 m. The wall of the later oven survived only to a height of about 0.25 m above the oven floor and it was bonded in to the west wall of the bakehouse. The superstructure of the oven was probably domed as shown in contemporary paintings, and parts of this seem to have collapsed on to the floor of the oven.

The floor of the bakehouse was of finely chipped Pennant stone which varied in depth from 0.1 m to 1 m. It is possible that these chips were the waste from dressing the stone used in B 4, conveniently used as a floor.

Period XX 15th-16th centuries (not illustrated)

B 4 was rebuilt as B 7 in the 15th or 16th century. The hearths and vat-bases of B 2, B 4 and B 6 had by this time gone out of use. The west wall of B 4, for a time also the east wall of B 2, was demolished and the stone from the foundations reused elsewhere.

The building lines at the south end of Redcliff Street were already well established by this time and any rebuilding was continued on the old wall foundations. The north and south walls of B 4 were rebuilt on exactly the same lines and the front wall remained of timber. Due to the cellars at the rear of B 7, most of this building was completely destroyed. It is probable that the rear wall was also built on earlier foundations. There was no indication that this wall was of timber.

The nature of the site continued as industrial in to the 16th century. Exactly what industry was involved in B 7 is not clear. However, it seems to have been connected with iron working. Large amounts of iron slag and sand filled two rectilinear pits, each with a large pit at either end which were filled with the same material. B 7 was divided into two main rooms by a stone north-south partition. An east-west passage was rebuilt over the earlier one in B 4 but this ran the length of the building.

Period XXI 17th century (not illustrated)

One feature of note on the site during this period was a possible lime kiln at the rear of B 7. It consisted of two flues, one on the west and the other on the south side of a sub-circular firing chamber, 1.9 m across. The

flues and firing chamber were built of stone below ground level while the superstructure would have been above ground level. The floor throughout was of very large Pennant slabs on which the walls were built. The floor of the western flue was pierced by three identical holes with another in the face of the south wall. The exact function of these holes is not clear although they may have held bellows for artificially creating a down draught which would otherwise have been impossible to achieve, or they may have supported the superstructure. The flues and firing chamber were backfilled with ash, coal and lime probably by c 1650.

Period XXII 18th-19th centuries (not illustrated)

The internal layout of B 5 and B 7 was altered beyond recognition in the 18th century and are hereafter referred to as B 8 and B 9. The timber front of B 7 was rebuilt in stone and the passage, which had for centuries run through the north side of the building, was demolished and rebuilt to the south. The external north and south walls remained in the same position. The floors were mostly of shaped Pennant stone slabs and cellars were constructed at the rear of both buildings. Many of the cellars extended as far west as Redcliff Backs and some were open until quite recently.

The south wall of B 9 changed alignment slightly and the north wall was built 1.2 m south of B 8 leaving a gap between the two buildings, which was probably an alleyway. The passage along the south side of B 5 was rebuilt on exactly the same line and the floors throughout were of shaped Pennant stones. A doorway with freestone jambs was built through the south external wall of B 9. This also probably led to an alleyway between B 9 and B 10 (85 Redcliff Street) to the south.

The Period IX east-west drain which for four centuries carried waste away from the site was deliberately filled with clay and a ceramic sewer-pipe was later laid along the top of it. The walls of the Period IX drain were subsequently heightened to create a channel for the sewer-pipe.

Both B 9 and B 10, in use until quite recently, had a varied history as shown by documents.

Discussion

The structural interpretation of the site has been well-established and it remains, to first examine what information the Portwall and the slipway have provided towards our knowledge of the position of the early Redcliffe quay, and secondly to discuss the dyers' houses.

The cross-wall found at the west end of the Portwall plays an important role in the examination of the early quay. Although the exact relationship of this wall to the Portwall could not be established, it was nevertheless, probably built while the Portwall was still standing and was certainly earlier than the construction of Freshford Lane. Excavation down the west side of this wall showed quite unequivocally that there was a gap in the Portwall of at least 3.5 m. The obvious explanation for this is that the Portwall stopped there. The widening and sloping back of the cross-wall to a width of about 2 m at a depth of around 4 m below the present pavement level is consistent with the construction of the walls of the slipway.

Millerd's map of 1673 shows that the west end of the Portwall lay next to the quay. He also shows a round tower close to the river's edge. The tower base found on the excavation was only about 11.5 m from the west end of the Portwall. An examination of the river Avon at Redcliffe Pit with the rock face to the south strengthens the view that the cross-wall could be an early quay wall. The rock face was clearly formed by the actions of the river and one would therefore expect the river to be wider than normal at this point, not narrower as it is today.

Further evidence concerning the position of the early quay wall can be demonstrated from the slipway which is certainly 13th century or earlier. A total measurement of the slip to the proposed early quay wall would be

about 27 m; if extended to the present quay wall however, it would be a staggering 81 m (250 ft). Of further significance is that a trench dug immediately to the east of Redcliff Back to a depth of about 6 m, across what would be the line of the slipway, confirmed that unless the slipway changed direction, which is most unlikely, it did not continue that far west.

The conclusion that can be drawn from the evidence is that prior to the construction of Redcliff Backs in the 17th century, the early Redcliffe quay probably lay to the east of the south end of Redcliff Backs.

The early development of no 86 and no 87 Redcliff Street and their use in the 13th and 14th centuries as dyers' houses can now be considered. To this end it would be appropriate to discuss the processes involved in this work. A plentiful supply of clean water and a good drainage system are essential requirements for any dye-works. No water supply was found on the site but the drains were certainly in evidence.

Initially the cloth was fullered, usually in fullers earth which occurs naturally around Bath, or with stale urine and then washed in clean water. This would remove any earth or urine from the cloth which could interfere with the dying process. Two pits which were probably associated with this process were identified, S 39 at the rear of B 2 and the large pit in B 4 beneath the drain chute in the south wall (see above, Periods XVII and VIII).

The types of dyes available were varied and were derived from mineral and organic sources. Red, blue and mauve substances found on the site could be dyes or pigments. The red substance was found adhering to the insides of two upturned oyster shells which may have been used as palettes for mixing dyes or pigments. Most dyes had to be 'fixed' to the cloth with a mordant. Perhaps the most widely used mordant during the Middle Ages was alum. This is a white substance and evidence for its use on the site may be forthcoming.

The cloth, mordant and dye were boiled together in a vat over a hearth. The industrial features found at Redcliffe can be compared with pictures of dyers at work in Florentine and French manuscripts (Singer, 1956). The Florentine manuscript (15th century) shows three different dying processes in operation in the same room. The French manuscript (15th century) depicts a dyer stirring a vat of dye over a circular hearth, the circular wall of which supports the side of the vat. Similar hearths together with square hearths in the same room were found at Redcliffe. The only comparable site excavated in this country was at Lower Brook Street, Winchester (Biddle, 1968). A series of water channels, hearths and possible vat-base suggests that during the 14th century the houses excavated had been occupied by a series of fullers.

It remains only to say that any future excavation in Redcliffe, particularly on the early quays which could be well preserved is of the utmost importance and priority.

Acknowledgements

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FIELDWORK AT HILLS FLATS ON THE RIVER SEVERN
ASTRIDE THE AVON-GLOUCESTERSHIRE COUNTY BOUNDARY

Tim Copeland

This article is a summary of a report by the author 'Romano-British Pottery from Hills Flats on the river Severn, and its relationships to the post-glacial deposits of the river' (Copeland, 1979). The discussion of the geological characteristics and the history of the superficial deposits as well as much of the pottery report included in that report have been omitted from this summary.

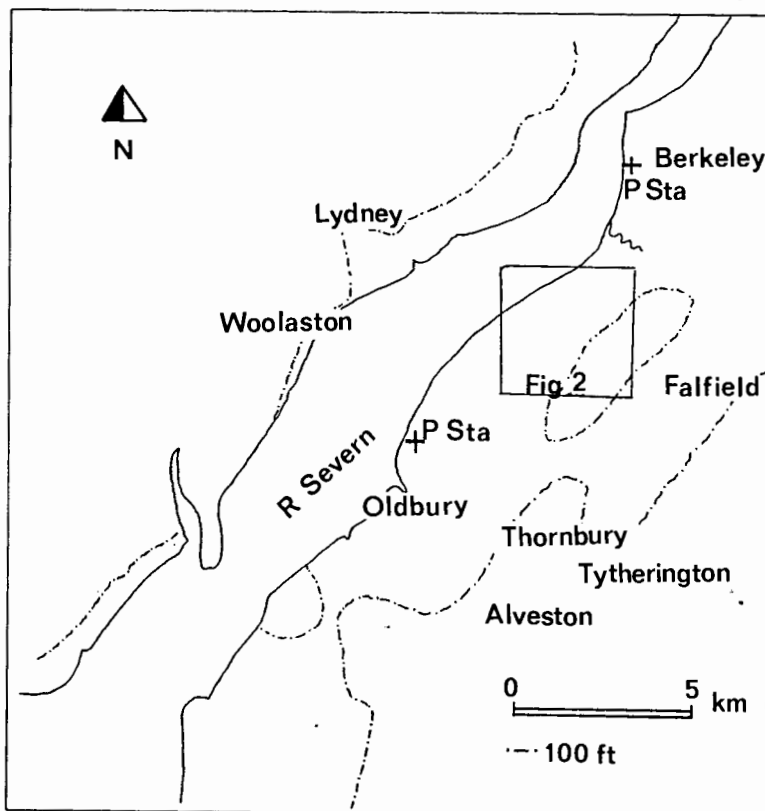


Fig 1 Hills Flats: location plan

The area which has been the subject of scrutiny is an inter tidal shore platform composed of Keuper Marl overlain by superficial deposits of clay, peat and saltings known as Hills Flats. The flats lie offshore between Berkeley Power Station (ST 660995) and Sheppardine (ST 620956), the Gloucestershire-Avon county boundary bisecting them. The foreshore platform extends from the sea wall, which protects the low lying alluvial clays of the Vale of Berkeley, to the main channel of the River Severn. Only some 75% of the area was examined, the thick mud on parts of the foreshore, and the danger of swiftly rising tides being the main limiting factors. The Flats were examined at varying states of the tide, in varying weather conditions and at all seasons over a period of 18 months.

The Foreshore at Hills Flats

The succession of the deposits which form the foreshore at Hills Flats has been considerably damaged by the erosive processes, and masked by the depositional processes of the River Severn. The present day depth of the surviving deposits, and their surface area, is determined by their height above sea level, and the nature of the protection given to them by the platform of rock in front of them. The sections across the overlapping sequence (fig 5) show

the variations in the extent of these deposits. The data given below is an amalgamation of the information from the locations of these sections.

1. The saltings at the top of the succession are bounded by a sea wall (the footpath at the top of which is at 9-10m above OD). The saltings are composed of mud and coarse grasses with estuarine plants, and lie at about 7m above OD. They are 1-2m higher than the land immediately behind the sea wall. The saltings slope towards, and are protected by, an apron of limestone boulders which have been imported into the area.
2. At about 4m above OD, at the base of the saltings and sloping at a slight angle, is a deposit of upper blue-grey, mottled clay, often covered with brown estuarine mud and silt. Often the saltings cover this deposit completely, and where it is exposed, it is often masked by mud. As throughout the sequence, coarse deposits derived from the bedrock are found overlying the clay. The clay is 0.5-1m thick.
3. Below the upper blue-grey clay, extensive areas of peat are visible. The peat layers lie at 3-3.5m above OD, and are 0.6-0.8m thick. They are interbedded with blue-grey clay. The layers of peat are discontinuous and at varying levels. The remnants of submerged forest are visible through the upper layers of the peat. Coarse material from the bedrock often overlies these layers. No trace of a soil horizon is detectable at the junction of the clays and peat, or within the peat beds.
4. Below the peat, the lower blue-grey clay appears. This lies at about 2.5m above OD, and is similar to the upper clay deposit; it is about 1m thick.
5. At the base of the succession is a series of coarse, round and angular litho-relicts of sandstone and siltstone derived from the bedrock set in stiff red/brown clay. This deposit appears to be weathered bedrock.
6. At about 1m above OD, the Keuper Marl bedrock outcrops. It is weak, fissured, red/brown, alternating with bands of soft, laminated, fissured argillaceous siltstones and occasional moderately strong sandstone beds. The argillaceous siltstones and sandstones are calcareous, and contain minute cavities caused by the removal of gypsum in solution. Generally the major lithologies occur in a rhythmic succession with a gradational facies change between them. The marl beds dip to the east at a low angle.

It is from the upper surface of the peat beds, and in the lower section of the upper blue-grey clay, that a large amount of Romano-British pottery has been recovered. However, pottery has also been found on the rock platform below, presumably washed out of the clay and peat.

The locations of pottery scatters

Remembering the limitations of the ever-present estuarine mud, it seems that there are four separate, if not very well defined, areas in which scatters of pottery have been observed (figs 3 & 4). A further difficulty is the fabric colour of much of the pottery is similar to the buff orange material derived from the Keuper Marl bedrock.

Area 1: (ST 638983) in a small and completely artificial bay enclosed by the sea wall, 500m south-west of Severn House Farm.

Area 2: (ST 637982-ST 635980). Between the south-west point of the bay, and 100m south-west of the field drainage outfall. (The distinction between areas 1 and 2 may be superfluous, since the sea wall juts out to divide these areas, and although the sea wall is following the course of a much earlier barrier, the general line of the defences is not following any natural feature.)

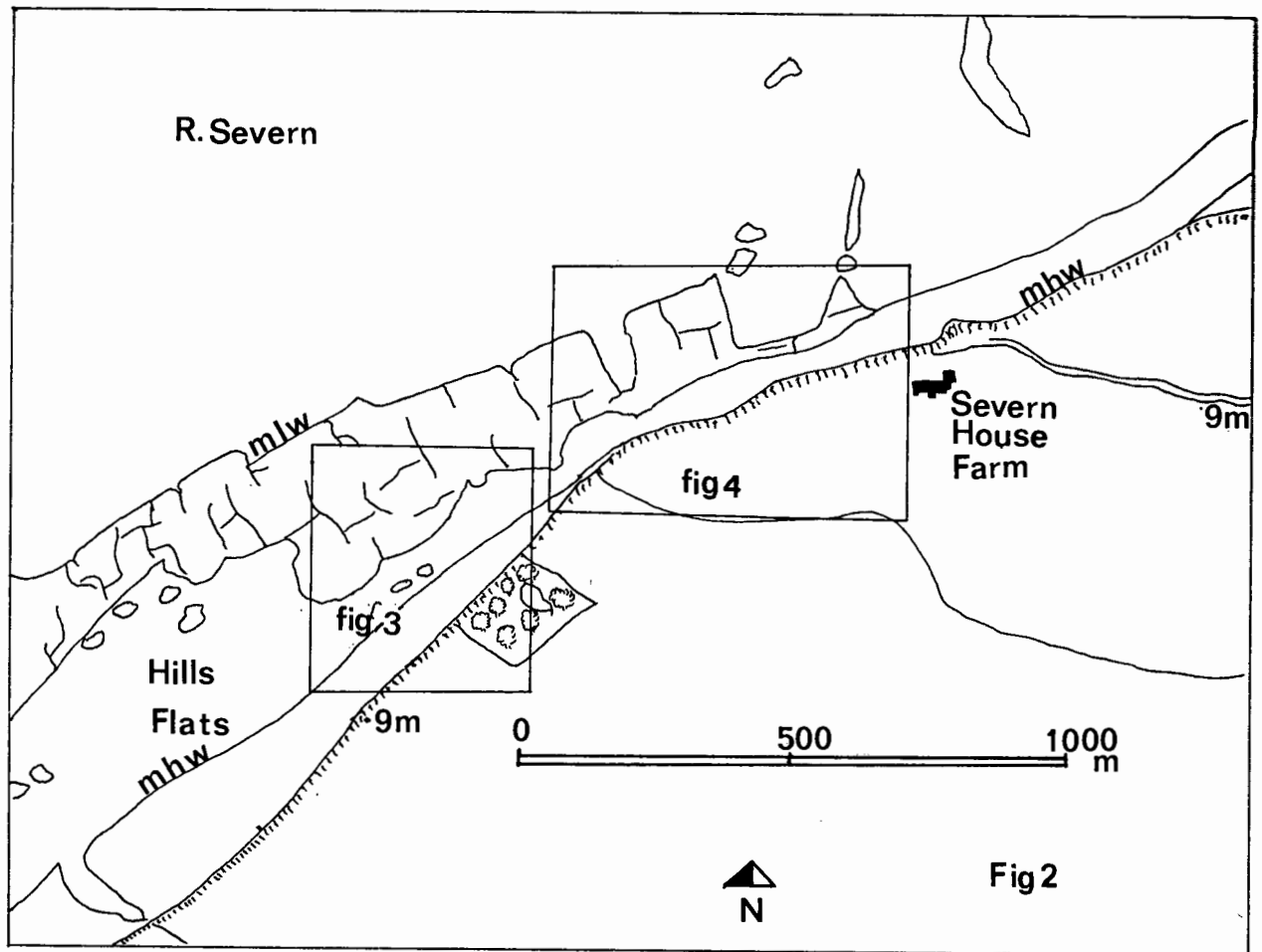


Fig 2 Hills Flats: area plans

- Area 3: (ST 634979-ST 632977). Between the north-east limits of the copse seen behind the sea wall, and the fence cutting across the saltings south-west of the copse.
- Area 4: (ST 631975- ?) 100m west of the fence and continuing for at least 100m south-west. Great care must be taken in this area as tides rise imperceptibly due to the flat nature of the beach. The area to the south-west was not completely examined.

No indications of positive or negative features were detected, even when the foreshore was scoured clean of the estuarine mud after storms and certain tide and wind conditions.

The pottery found on the foreshore at Hills Flats is almost certainly an in situ occupational residue being eroded at the present time. This is indicated by the presence of sherds embedded in the clay layers in and above the peat. Alternative explanations were examined and discarded. It was proposed that the sherds had been washed out of the soil imported with the boulders that form the protective apron below the saltings. However, the soil overburden is usually stripped before the rock is fragmented for use. Longshore drifting was considered, but there is little evidence for lateral movement along the beach; the shallow nature of the foreshore is robbing the river of its kinetic energy by friction with the rock platform, which also restricts wave heights, thereby leaving little energy for transportation of materials along the beach. With both these alternative explanations it is difficult to see how the sherds would become embedded in the clays. This does not exclude the possibility of the longshore drifting of the sherds at the time the clays were being laid down in different environmental conditions, but this thesis is unlikely. Further evidence against any sustained movement of the sherds is the lack of abrasion on their surfaces.

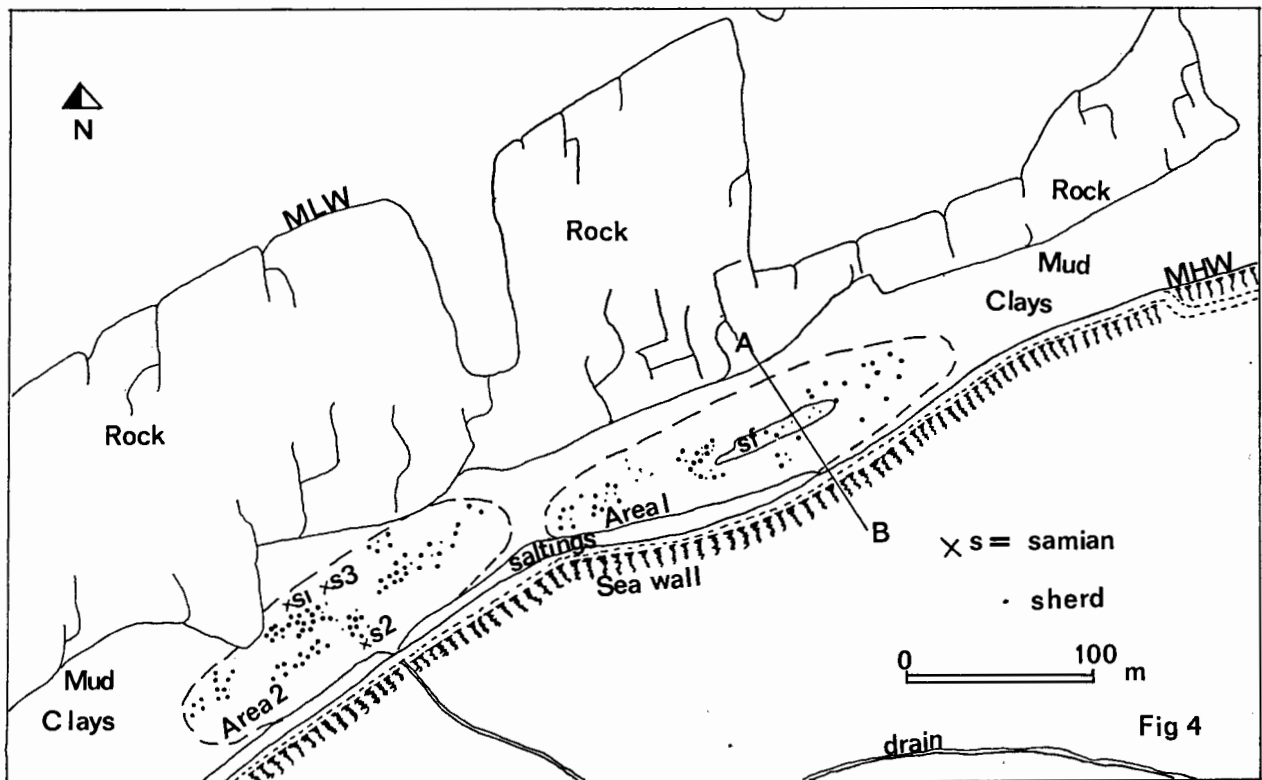
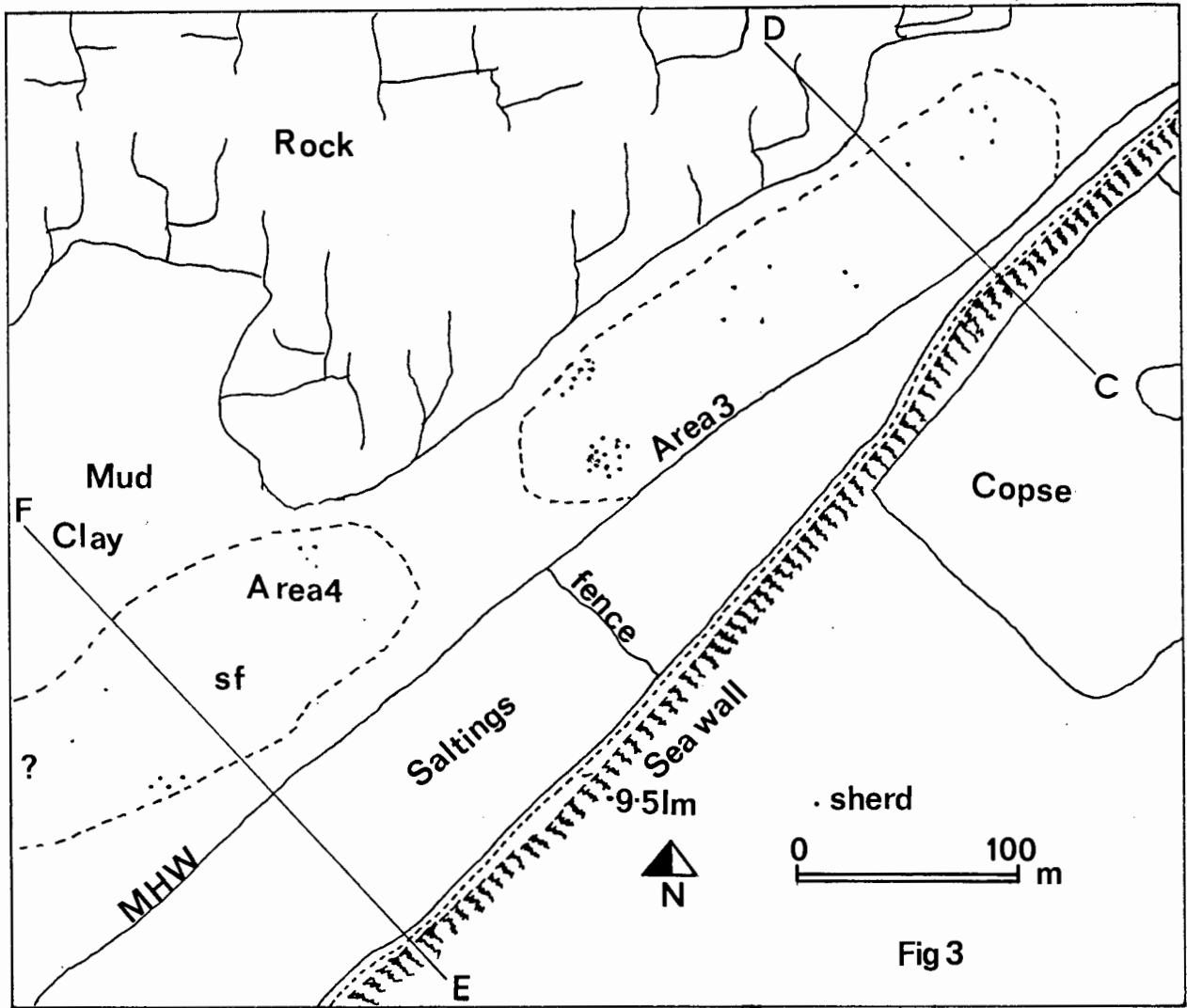
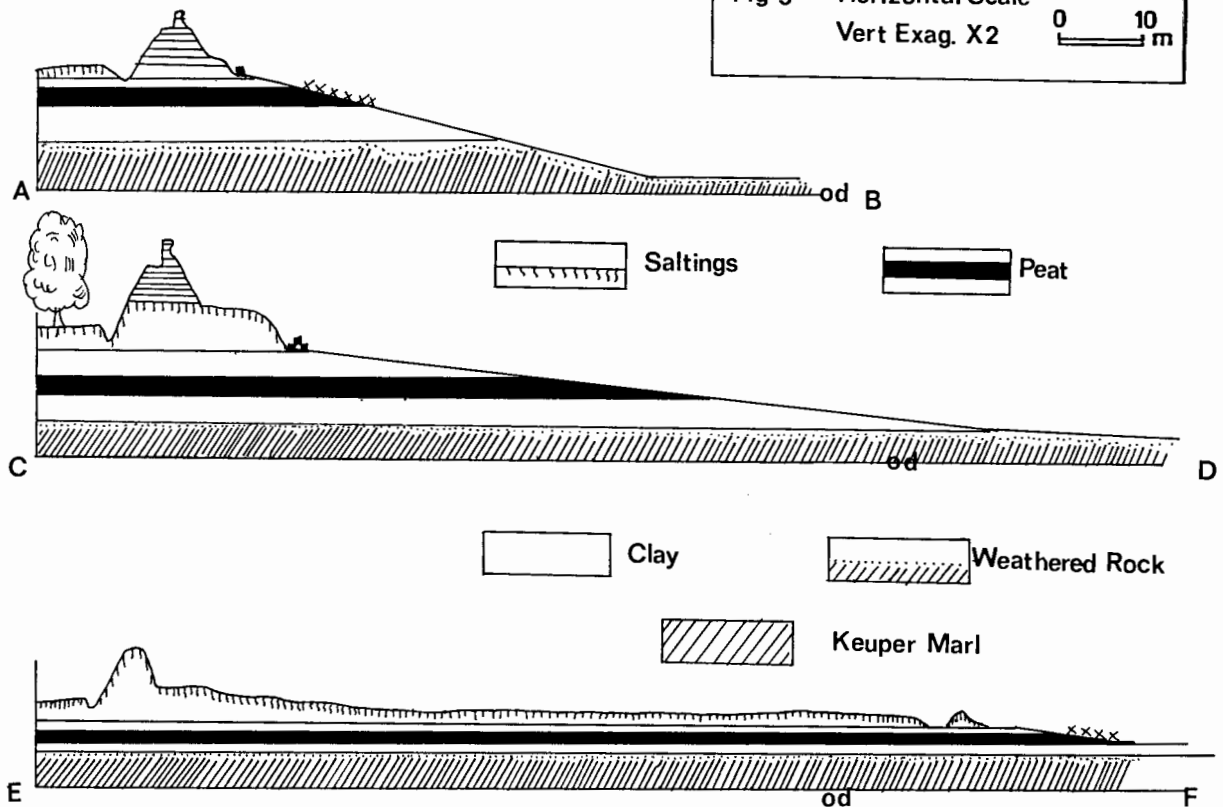


Fig 5 Horizontal Scale
Vert Exag. X2 0 10 m



THE POTTERY

The pottery assemblage from Hills Flats consists of some 200 sherds, often discoloured but rarely abraded. Since the pottery was unstratified a simple type series has been set up using the fabric of the pottery and the class and form of the vessel. The coarse pottery was examined macroscopically and three distinctive fabric types were present: Severn Valley ware, Black Burnished ware 1, and a shell tempered ware. Beyond the further sub-division of the Severn Valley ware into reduced and oxidized fabrics, no new fabric types were apparent, even after microscopic examination. Minor differences between the Severn Valley sherds could be accounted for by variations in the sorting of inclusions, (which influenced texture in break, the feel and amount of vesiculation of the surfaces) weathering and firing conditions.

Catalogue

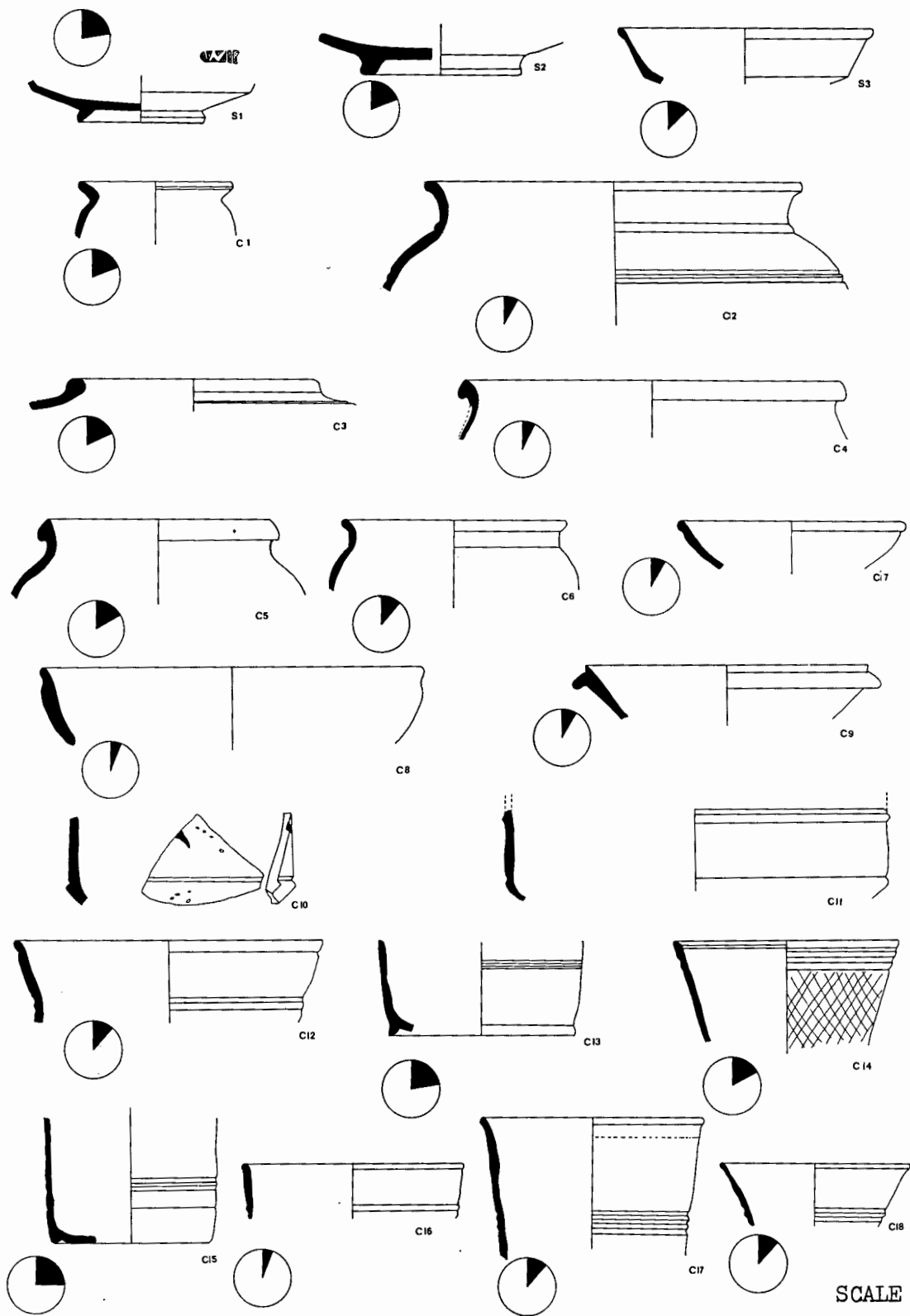
The amount of the sherd remaining in the horizontal plane is indicated by the shaded segment of the 'pie chart'.

Samian ware

- S 1 Base Dr 18/31, central Gaulish. Potter's stamp on base, stamp illegible. Area 2.
- S 2 Base Dr 38 (?), central Gaulish. Area 2.
- S 3 Rim Dr 18/31, central Gaulish. Area 2.

Coarse wares

- C 1 Miniature cavetto rimmed jar. TF3, area 2, cf Gillam type 123; 125-160 AD.
- C 2 Large storage jar with two incised cordons on shoulder, a cordon at junction of neck and shoulder and squared rim. TF1, area 2, cf Webster no 2, late 1st-mid 2nd century.
- C 3 Ovoid jar, round shouldered with incised cordon and squared rim. TF1, area 4, form is 1st century.
- C 4 Triangular undercut rim. TF1, area 2.
- C 5 Triangular undercut rim. TF1, area 2.
- C 6 Slightly flaring neck. TF1, area 2, 2nd-4th century.
- C 7 Bowl: copy of Dr 31 (?), hemispherical with bead rim. TF1, area 3.



SCALE 1:4

- C 8 Bowl: beaded rim, traces of brown slip. TF1, area 2, cf Webster no 34, 2nd-4th century.
- C 9 Straight-sided bowl with bead and slightly hooked flange. TF3, area 2, late 3rd-4th century.
- C10 Carinated bowl, groove above carination, traces of burning on outer surfaces. TF1, area 2, cf Webster 59/60, 1st-2nd century.
- C11 Carinated bowl, groove above carination, cordoned wall. TF1, area 3, cf Bagendon 106, Camulodunum 211.
- C12 Large tankard or bowl. TF2, area 2.
- C13 Tankard Base. TF1, area 1.
- C14 Tankard, burnished with acute angled laticing. TF1, area 2, cf M5 (1), fig 3 no 37, also Gillam 184, 120-150 AD.
- C15 Tankard base, with footring. TF2, area 2.
- C16 Tankard. TF1, area 1.
- C17 Tankard. TF1, area 2.
- 52 C18 Tankard. TF1, area 2.

TABLE ONE: FABRICS

	TYPE FABRIC 1 Severn Valley ware; oxidized	TYPE FABRIC 2 Severn Valley ware; reduced	TYPE FABRIC 3 Black Burnished ware (BBW1)	TYPE FABRIC 4 Calcite Gritted ware (CGW)
Surfaces	Hard. Colour varies, buff, orange, (yellow/brown B4), to light red (brown C5). Smooth, though often vesicular, depending on the degree of sorting of the inclusions.	Hard. Grey (green/brown A4 nearest), smooth, though often vesicular, depending on sorting of inclusions.	Dark grey (green/brown A1), occasionally fired reddish brown (yellow/brown A4/B4). Smooth, hard.	Colour varies from black (neutral A1) to pink (brown/red A5). Hard with a 'soapy' feel.
Fracture	Grey (green/brown B4). smooth, though in less well sorted examples, hackly.	Grey (green/brown A4). Occasionally pink, smooth, or hackly.	Hackly, colour as surfaces, though sometimes with an oxidized red layer below surface.	Hackly.
Inclusions	Brown, non-metallic: large, up to 2mm though av. size 0.5mm, sub-rounded, varies moderate to abundant. Brown, metallic: large, av. size 2mm, sub-angular, sparse. White: calcitic, angular, av. size 0.5mm sparse. Mica: small plates, abundant. The sorting of the inclusions varies from well to ill assorted.	Brown and black, non-metallic: sub-rounded, av. size 10mm, sparse. White: calcitic, small, angular, sparse. Mica: small plates, sparse to common.	Rounded white grits, smaller pink and brown.	Tempered with abundant shell Particles.
Surface treatments	Often burnished, lattice decoration occasionally.	Often burnished.	Burnished in parts.	

Notes

1. Colour descriptions in brackets are taken from The Pottery Colour Chart prepared by the Study Group for Romano-British Pottery.
2. Hardness is based on a modified version of Moh's scale ie: soft = can be scratched with a finger nail; hard = can be scratched with a steel needle; very hard = cannot be scratched with a steel needle.

TABLE TWO: AREA, FABRIC, AND SHERD COUNT

Site	TF1	TF2	TF3	TF4	Samian	Total
1	64	3	1	0	0	68
2	77	5	2	3	3	90
3	29	2	2	0	0	33
4	11	0	0	1	1	13
Total	181	10	5	4	4	204

Discussion

The conclusions and inferences that can be drawn from the sample are limited. A certain amount of Romanization is seen in the profiles of most of the material, but the influence of Iron Age 'C' styles is also readily apparent, especially in the bowls and tankards. This influence is reflected in the pronounced similarity of the profiles to 1st century forms found at Colchester, Bagendon, Camerton and Usk.

The Samian ware is most happily dated to the first half of the 2nd century. Later activity is indicated by the Black Burnished ware flanged bowl, and the shell tempered or calcite gritted ware, which was wheel made, or at least finished off on the wheel, thin in section, and smoothly finished, though not burnished. Similar fabric types were widely traded from the South Midlands in the 3rd and 4th centuries, and the fine finish of these types contrasts greatly with early shell tempered wares which tend to be hand made, thick in section and with shell particles of large size.

Over 95% of the Hills Flats assemblage was identified as a fairly homogenous Severn Valley ware fabric, and this may indicate the possibility of a kiln in the area. The alluvial clays of the Vale of Berkeley were used for brickmaking at Littleton-on-Severn before the advent of more modern techniques enabled the Keuper Marl bedrock to be fired - however, the slightly calcareous, dense and blocky nature of the Keuper Marl would have excluded its use within the technical limitations of the Roman kiln. Only when weathered or re-deposited does it form a suitable clay for potting. It is possible that the bedrock was excavated and stacked for weathering and used at a later date, but it would have been more likely that the more accessible alluvial clays would be exploited. The Keuper Marl siltstones and sandstones could have been used as a tempering agent, and the sub-rounded brown inclusions in the Severn Valley ware do indeed appear to be Keuper Marl.

If a kiln site does exist nearby, evidence should be forthcoming of wasters from the firing process. The fragmentary nature of the sherds makes it impossible to detect misshapen vessels, but approximately 8% of the material shows signs of overfiring. Sites used for the manufacture of pottery rarely produce evidence of structures associated with the processes involved. Such structures as were necessary were probably of a flimsy nature. Evidence from Severn Valley ware manufacturing sites indicates that this industry was made up of a number of small scale potting centres, rather than a large scale civilian or military factory. Such limited, possibly seasonal activity would not have resulted in extensive or substantial structures.

THE PHYSIOGRAPHY OF THE POST-ROMAN DEPOSITS

The pottery assemblage from Hills Flats is of significance not only because it indicates human activity on the site during the Romano-British period, but also because it helps to date the alluvial deposits it is associated with. The pottery bearing layer is of particular interest because of its relationship to the superficial deposits in the horizons above it, and the information it gives regarding the Roman and post-Roman physical history

of the site. Further details about the possible origin and chronology of the superficial deposits below the Roman horizon can be found in Copeland (1979).

The environment of Hills Flats during Roman times is a matter for conjecture, but it appears to be represented by the top levles of the peat and the overlying blue-grey clays. Perhaps the most detailed, and convincing description of the environmental conditions of such low-lying areas in Roman times has been proposed by Hawkins (1973). He suggests that the Somerset Levels were probably mud flats on which vegetation was beginning to establish itself, initially on the upper marsh and tidal pill levies. Permanent settlement would have chiefly occurred in the inland part of the coastal belt where the clay transgressed on to the peat beds. The mud flats would have been used as a place for pottery manufacture during the summer months, or as a route to drier, sandier hills. There is no evidence for agricultural activity in the Somerset Levels, in that no true soil horizon has been seen on top of the peat. (This is also true of the deposits at Hills Flats.) The flats would continue to accrete slowly and become colonized by vegetation as their level reached MHWSF. They would be wet in winter with spring inundations.

The history of the coastline at Hills Flats since Roman times is not very well dosumented, and the date of the building of the sea walls is difficult to ascertain. Some drainage and sea defence work may have been carried out by the inhabitants of the monastic settlement at what is now Chapel House, near Sheppardine, thought to have been first endowed by Thomas, Lord Berkeley in the 14th century. This sort of activity was certainly carried out by the monks of Goldcliff Priory in Gwent during this period.

The Great Flood of 1606 must have had a catastrophic effect on the Vale of Berkeley, as it had on other low lying areas bordering the Bristol Channel and Severn estuary, though this was probably not an unusual event but severe in its magnitude. A tablet over the door in Hill parish church records that in 1750, Sir Francis Jenner-Fust planned, built and erected a 'great sewer' at Hill Pill 'to drain this parish from the (en) during flood'. (The remains of the sluice gate can be seen 100m west of the present sluice at Hill Pill. It is now tree covered, the embankments associated with it are clearly visible.) Before the present sea walls were refurbished in the 1960's, high spring tides were known to flood the area frequently.

The alluvial deposits above the Roman levels in the foreshore at Hills Flats offer a further insight into the physical processes at work on the coastline since Roman times. The thickness of layers of 'upper' blue/grey clay overlying the levels from which the Romano-British pottery was exhumed indicate that the river has been accreting since Roman times, but the building of sea walls in the Middle Ages has caused this accretion to be in evidence only on the seaward side of the walls, giving a difference of 1-2m in height between the surface of the saltings and that of the lands behind the sea wall (shrinkage of these now well-drained lands is an unknown, and probably unknowable variable). The top surface of the peat layers in front of the saltings is only 0.8-1m below the level of the land surface behind the sea wall. The 'upper' blue/grey clay is about 1m thick on both sides of the sea wall. The saltings on these clays are 1-2m thick, and must represent the build up of alluvial deposits since medieval wall building.

It would appear that the Roman surface lies about 0.5-0.9m below the present land surface behind the sea wall. (This evidence is similar to the results of the excavations at the Roman quay at Caerleon (Boon, 1977), where the Roman surface was found to be about 0.5m below the present land surface.) It has been generally thought that in the late Roman period (at Caerleon the excavator deduced in Constantinian times) the sea level began to rise, depositing alluvial clays on the marshy estuarine area. The magnitude of this rise in mean sea level has been the subject of much debate. This continuation of the Flandrian (ie post-glacial) Transgression was termed 'The Romano-British Transgression' by Godwin who proposed a renewed rise in mean sea level beginning c 250 AD. The magnitude of this rise in sea level has been estimated as 55.

being between 10-20 ft (Cunliffe, 1966), depositing about 12 ft of alluvium on Roman settlement sites in Gwent (Locke, 1972). Much of the evidence for such a catastrophic sea level rise has been gleaned from the thickness of clay deposits overlying finds of Roman pottery which have been discovered 10-20 ft below the present land surface level.

This conception has been challenged by Hawkins (1973), who suggests that sea level has risen only $1\frac{1}{2}$ ft approximately, and that the Roman land surface is only 0.3-0.9m below the present land surface. He points out that there is no evidence for such transgression outside the Bristol Channel, and that finds of Romano-British pottery are anomalous in that they were probably deposited in pits, drainage ditches, and tidal creeks of the Roman period. In putting forward this alternative hypothesis, Hawkins considers that the build up of deposits in front of sea walls in low lying areas has resulted not from a rise in mean sea level, but that this thickness of sediment is the result of an attempt by the sea to accrete to the maximum height of HWST during equinoctial periods. The physical evidence from Hills Flats would seem to favour the Hawkins hypothesis.

Recent geomorphological processes working on this coastline can be deduced from the seaward face of the saltings which are being eroded into small cliffs where they are not protected. These small cliffs, about 1m high, are interposed by small bays with beaches of Keuper Marl pebbles. The weathered section is composed of a series of layers of Keuper Marl pebbles interbedded with layers of brown/grey alluvial clay and silt, the dark pigment being caused by the organic material in the lower layers, and coal dust near the turf line. The layers of pebbles appear to be remnants of recent beaches, whilst the layers of alluvial mud indicate deposition at very high tides. At high tides the saltings are aggrading; at medium tides they are eroded.

Discussion

The evidence and interpretation set out above offers little in the way of hard fact about the nature or function of the Romano-British activity at Hills Flats. Reasons for a human presence in the area could be accounted for in the richness of natural resources found in a riverside location. Considering the probable marshy conditions prevailing during the first three centuries of the Roman period, good fishing, wildfowling, small timber, reeds and rushes would have been readily available.

It is possible that clays of the Flandrian series were used for the seasonal manufacture of pottery and that the structures associated with this activity have not yet been exhumed by the river or have already been destroyed, or were so flimsy as to leave little archaeological trace. It must also be borne in mind that it may be that no pottery manufacture took place on the Flats, or the present writer missed the evidence altogether, or maybe the main industry was salt manufacture. Recent fieldwork at Oldbury on Severn has resulted in the discovery of large amounts of Romano-British pottery in a similar geomorphic position to the Hills Flats assemblage, but were not related to the underlying superficial deposits (Green & Solley, 1980). The profiles and fabric types of the published sherds from this site indicate similarity with the Hills Flats material. Future work may elucidate some of these problems, as fieldwork throughout the Vale of Berkeley may show how a site like Hills Flats was related to the areas of more permanent settlement at such sites as Falfield, Alveston and possibly Tytherington and Thornbury (fig 1). It may be that a band of settlement is waiting to be discovered along the interface of Keuper Marl ridge and alluvial flats, for example, along the present course of the 'C' road between Hill and Ham. Settlement in this area is most likely considering the environmental conditions prevailing in Roman times. In which case sites such as Hills Flats pottery scatters may represent a seasonal relationship with farms, villas, and small settlements at the edge of the then marsh.

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* * * * *

ROMANO-BRITISH OCCUPATION AT CROOK'S MARSH FARM, AVONMOUTH

A & R Everton

Evidence of Romano-British occupation at Crook's Marsh Farm, Avonmouth is being revealed during the extraction of the alluvial clay by the Severn Valley Brick Company. A series of ditches, some probably associated with small rectangular enclosures sealed by 0.5m of post-Roman deposits, are being recorded as they appear in the sides and across the 80m working face of the clay pit. The ditches are on average 2.5m wide and 1.2m deep and contain late 4th century pottery plus a few residual mid 2nd century samian sherds. The majority of the pottery consists of grey and black micaceous fabrics with black burnished wares forming a secondary group, plus a small quantity of colour coated wares from the Oxfordshire kilns including mortaria and flanged bowls. Of particular interest are a few sherds of shell tempered ware, possibly belonging to the 5th century.

A preliminary examination of the pottery shows that storage jars were made in micaceous grey fabrics, whilst the black micaceous fabric was used almost exclusively for dog-dishes and shallow flanged bowls, but all types of cooking vessels in black burnished ware were represented.

The ditches also contain a number of waterworn pebbles and larger rocks including conglomerates, sandstones and lias. Similar pebbles and rocks are present in the gravel banks below high water level in the river Severn only a mile away to the west of the site. Some of the larger rocks have been worked; these include a quern plus the remains of two broken rough-outs and three small rectangular 'troughs'. Stones from other sources are represented mainly by pennant sandstone 'tiles', many of which show evidence of contact with fire and use as whetstones.

Other finds include bones of cattle, horse, red deer, sheep and pig, mainly from the extremities of the larger animals including some found in anatomical juxtaposition. Metal is poorly represented, but three coins were found, one possibly belonging to Gtatian 367-383. The ditches also contained varying amounts of charcoal and fragments of burnt clay lumps, 100-5mm, of indeterminate origin.

Some ditches show evidence of rapid silting and possible re-cutting on slightly different alignments. An apparent focus of industrial activity on the eastern edge of the site was indicated by an increase in charcoal, burnt clay and pottery in the ditch and possible organic remains adjacent to an area of probable occupation on the Roman land surface.

Although clay has been extracted from fields to the south-west and north-east of the present site, no evidence of Romano-British occupation was noted by Mr Roger Veale of the Severn Valley Brick Company until work commenced in the present fields in April 1980, and with clay extraction continuing in the adjacent fields until the mid 1990's there is time to initiate a rescue/research programme in the area scheduled for total destruction at an estimated loss of about one hectare a year. A study of the early settlement on the alluvial clays of the lower Severn valley may show similarities with the Romano-British utilisation of the upper Axe valley (McDonnell, 1979) and a relationship, if any, with the late villa economy as represented by that at Kingsweston.

We would like to thank the Severn Valley Brick Company and Mr Roger Veale in particular for allowing us access to the site and for his interest and help in salvaging material and information; for Dennis Elm's assistance, often in most unpleasant conditions; Dr Warwick Rodwell and Peter Leach for their comments on the pottery.

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BRISTOL'S ANSWER TO THE LUFTWAFFE

Nicholas Roberts

The author is one of the leading authorities in what is probably archaeology's newest speciality, that of aviation archaeology. He has done fieldwork in various parts of Britain and Europe and has written several books about World War 2 aircraft.

Lying in all corners of the county, overgrown with brambles and nettles, patiently accepting the brush of vandals' graffiti, are hundreds of tons of brick and concrete. Not very inspiring to most, and probably a nuisance to some, these piles of crumbling masonry are the remains of what were once the important foundations of Bristol's and Avonmouth's ground defences against enemy air attack during six years of bitter world war. At first these neglected field corners with their seemingly haphazard mounding, cracking concrete and rusting iron doors appear to be of little value, and even a closer look reveals few glimpses of a past life of orderliness, of a working, regimented base operated with pristine army coolness. Nevertheless these gaunt reminders of a city and Empire under stress are unique; Avon's anti-aircraft gun sites include some of the best preserved in the country, albeit through neglect.

In early 1940 there was every chance that the war would be over within a year, the Battle of Britain was not yet a reality and France had not fallen. But the threat of an enemy air attack was there, and Bristol had to prepare for a possible raid. With two aircraft factories, important docks, railways and factories, all contributing towards an early end to the war, Bristol had many targets listed by Nazi Germany's Luftwaffe. The first guns appeared in Bristol before Christmas 1939, but it was not until the eve of the Battle of Britain that any permanent sites were built. The sandbagged pits gradually gave way to concrete, and, by 20th July 1940, there were five fixed sites out of a total of eight. These were located at Pill Hill, Pur Down, Gordano, Portbury and Winterbourne. Each site was equipped with four heavy, large-calibre anti-aircraft guns, providing, by August, a total of 32 operational weapons for the defence of Avonmouth and Bristol. Less than four years later, after disastrous raids on the city, Filton, Yate and Avonmouth, (between July and December 1940, 360 tons of high explosive and land mines and 113,500 incendiaries were dropped on Bristol alone) the area supported 96 heavy guns, dispersed at 20 battery sites. These formed a close-knit circle around Bristol and Avonmouth and ranged from 'urban' sites such as Eastfield Road, Westbury-on-Trym to rural sites such as Pagan's Hill, Chew Magna and St George's Wharfe, Avonmouth. Most were in isolated positions, the regiments on duty having an unenviable job, monotonous, tiring and often unrewarding.

Heavy Anti-Aircraft (HAA) Battery Sites

The HAA units were manned by the Royal Artillery, often in conjunction with the Territorial Army. A typical Regiment during the early war years in the Bristol zone was the 76th HAA Reg, which included the 236th Battery, based in the Territorial Army centre on Whiteladies Road. In the autumn of 1941 the 76th left for the Mediterranean leaving the 133rd HAA Regiment (with its four batteries) to protect the city and docks. Smaller calibre guns, such as 40mm, 2 pdr. Bofors and machine-guns, which were mobile, were operated by 'Light Anti-Aircraft Regiments', such as the 98th LAA Reg. They were set up on street corners and other strategic sites and included such units as the 46th and 69th AA Brigades, responsible for searchlights and light machine-guns.

The 20 HAA battery sites in the Bristol area were (fig 1):

- | | | |
|--------|-------------------------------------|-----------|
| 1 ... | Portbury | ST 487766 |
| 2 ... | Lodge Farm, Portishead | ST 441750 |
| 3 ... | Markham Farm, Easton-in-Gordano ... | ST 522749 |
| 4 ... | St George's Wharfe | ST 502771 |
| 5 ... | Hollywood, Cribb's Causeway | ST 568809 |
| 6 ... | Eastfield Road, Westbury | ST 578773 |
| 7 ... | Rockingham Farm, Avonmouth | ST 524808 |
| 8 ... | Pilning | ST 543863 |
| 9 ... | Woodlands Lane, Almondsbury | ST 612832 |
| 10 ... | Earthcott, Rudgeyay | ST 638861 |
| 11 ... | Brickfields, Winterbourne | ST 634809 |
| 12 ... | Henfield | ST 682792 |
| 13 ... | Pur Down | ST 611764 |
| 14 ... | Rodway Hill, Mangotsfield | ST 666757 |
| 15 ... | Hanham | ST 636715 |
| 16 ... | Saltford | ST 685657 |
| 17 ... | Whitchurch | ST 605681 |
| 18 ... | Pagans Hill, Chew Magna | ST 552626 |
| 19 ... | Bedminster Down | ST 566697 |
| 20 ... | Backwell Hill | ST 505678 |

Headquarters of the HAA Regiments were at St Margaret's School, Henleaze, and Overcourt, Almondsbury.

As far as can be ascertained, the main heavy anti-aircraft gun to be used on the 20 battery sites in Avon, excluding a few obsolete First World War 3" guns evident in 1939, was the Vickers 3.7", a weapon large enough to be effective up to 40,000' but easily assembled or taken down in a few minutes. It came complete with huge straddle legs which supported it in action, and an advanced array of electronic gear. Each gun carried batteries and dials of instruments, illuminated at night, to enable the gun-layer to adjust the elevation and degree of the barrel according to the directions given by the Predictor. The latter was an instrument which, when fed with information

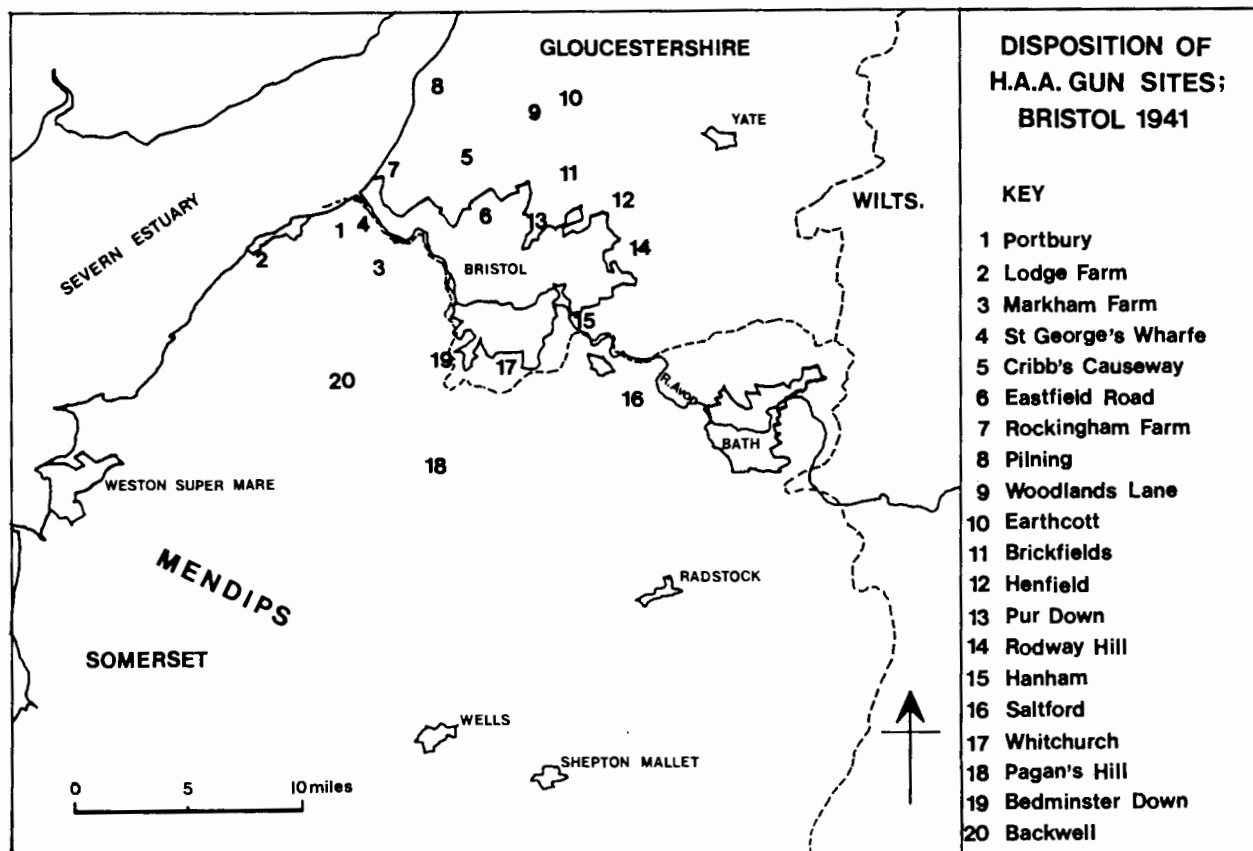
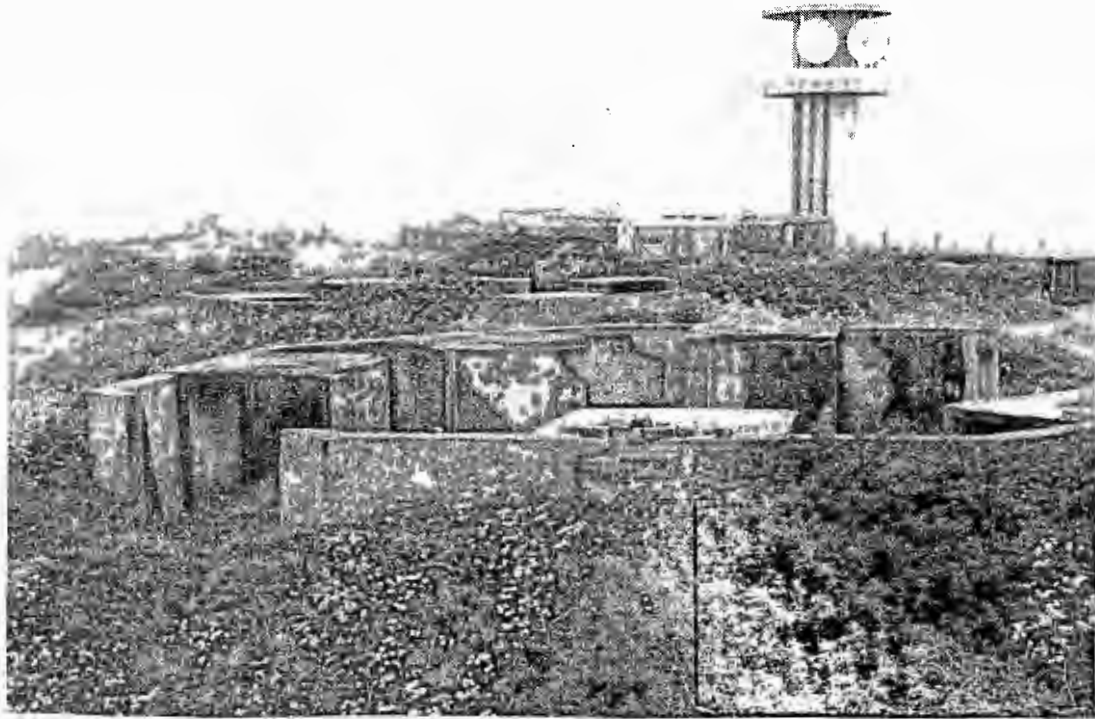


Fig 1 Disposition of heavy anti-aircraft gun sites, Bristol 1941



Pur Down gun emplacement in 1980. This view, looking south-west with no 2 pit in the foreground, portrays well the exceptional state of preservation of this site.

from the 'Height Finder', provided details of the enemy aircraft's speed, height and ETA, all essential for accurate aiming directions. The shell weighed 28 lbs and could reach an altitude of some eight miles. As the complete cartridge weighed half a hundredweight, loading the 3.7" gun was no speedy operation, yet an efficient team could fire at least eight rounds per minute. On eight of the fixed sites around Bristol the larger calibre 4.5" guns were also used. Usually there were two of these guns to four 3.7" guns on each battery site. Remains of the two emplacements built to protect the gun and gunners at Pur Down can be seen at either side of No 4 gun pit. They consist of pre-cast concrete blocks arranged in shallow walls in rectangular fashion and appear to be a later addition to the otherwise regular layout of the site.

When the possibility of a long drawn battle, lasting years rather than months, became a reality the permanent sites were transformed into miniature villages, a battery or half-battery often having its own mess, canteen, cookhouse, sickbay, maintenance shops, sleeping quarters etc. A half-battery, capable of maintaining a nominal roll of about 140 men, would have operated four guns (11 per gun), with eight men on the predictor and four on the height finder, plus ancillaries such as medical staff, fire picquet and guards. As the gun site had to be operational 24 hours a day, seven days a week, leave was taken in rotation.

The four gun-pits of each site were centred around the Command Post, and linked to the magazines by a concrete track (fig 2). Around the pit a reinforced concrete or brick wall protected the gunners and gun, and a blast mound was built outside the pit. Alongside six of the facades of the octagonal pit were iron ammunition magazines, each with doors, and each containing rounds already fuzeed (to different altitude settings to save time). External shelters housed the gun crew and the limber gunner's maintenance recess. The site magazines, like the battery office, operations room and command post, were constructed half underground, the excavated material used for the surrounding mounds. At the entrance to the gun pits were a pair of hinged armour-plated doors, closed during a raid, but normally left open. A similar pair were fixed at the other end of each pit. In most cases the gun pit walls were rendered with a mortar mix, and then the whole unit camouflaged in black,

LOCATION: ST.612764
HEIGHT ASL: 290 ft. (90m)

1. Gun operations room
2. Probably battery office
3. Command post (sunken concrete cabin)
4. Probably range-finder or predictor housing

Battery site boundary

Site magazines

Gun pit, each containing one Vickers 3.7" A.A. gun

No. 1 gun

Crew shelter

Gun magazines

Armour-plated doors

Limber gunner's shelter

0 10 20m

BRISTOL ANTI-AIRCRAFT BARRAGE, GUN SITE No.13, PUR DOWN

AS AT SEPT. 1941

Fig 2 Plan of HAA gun site, Purdown (13) Bristol

dark green and dark brown paint. A camouflaged net would probably have been draped over each pit during daytime, only the barrels of the guns protruding. All tracks were painted black, and the minimum amount of local vegetation was removed. Even during the day the batteries would have been nearly invisible from the air, their deadly stings being safe from attack unless seen during firing.

An interesting account of life on a battery site is given in HMSO's Roof over Britain (1942), which explains that an anti-aircraft gun fired at night emitted a 25' long flame from the muzzle, and to capture this event on film a press photographer was sent to the gun battery site at Rockingham Farm. He focused his camera in daylight, got the four guns in the viewfinder and arranged to open his shutter when the gun position officer gave the command to 'fuze'. He then settled down to wait for a raid; 'It was not a very luxuriously appointed site, and there was only one officer, who slept and ate in his office with half a bottle of whisky as his mess bar. They slept in their clothes, except the photographer, who ran out in his pyjamas and a tin hat whenever there was an alert, which seemed to be about once in ten minutes. But the enemy, trying for Avonmouth, were always too high for the guns to get a chance to fire. For eight days the photographer waited with the alternate patience and impatience of a photographer after a picture. On the eighth night, at 3 am and in drizzling rain, the alarm sounded. He rushed to his position, his left hand on the shutter, his right hand holding the camera. The searchlights caught and held the target, like a silver cigar pendant in the darkness. The gunners went into action, and as their officer shouted 'fuze', the photographer opened his shutter and waited. There was an almighty explosion. The four guns had gone off all together, smashing the barrack hut windows, jerking the camera several feet into the air, cutting the photographer's left cheek and knocking one of his teeth out, shooting the tail off the 'plane and bringing it down.'

The success of the gun barrage in Avon is difficult to assess, since few aircraft were actually brought down locally. Certainly the claiming of the aircraft in the above extract is false propaganda, since there were no aircraft shot down in July 1940 in Avon, the time when the story occurred. Probably the first success was a Heinkel He 111, Werke No 2126, of KG55 which was shot down near Racecourse Farm, Failand at 11.50 hrs on 25th September 1940, during a Filton raid. The crew comprised Fw Gerosmeir, Oblt Gottfried Weigel (pilot), Ofw Narres, Fw Engel and Gefr Geib, all of whom successfully abandoned their bomber to become POWs. Five months later, on 22nd February 1941, the Portbury battery (sited at Sheepway), hit an He 111, Werke No 3247, of KG27, which was on its bombing run towards Portishead power station. This crashed in the mud (ST 487775) and some remains still lie buried in the Severn mud less than a mile away from the remnants of the battery camp. The crew were Ltn Rusche (pilot), Fw Jankowiak (W/Op), Gefr Steinbach (A/g), Uffz Heinrich de Wall (F/Eng), and Fw Ranke (Obs). Only the pilot survived. Further south an enemy bomber, believed to be a Junkers Ju 88, was brought down off Brean Sands on the night of 23rd November 1941, but no wreckage was ever found. During the early morning of 18th May 1943, two Dorniers collided over the Bristol Channel at approximately 03.00 hrs. One aircraft was a Dornier Do 217e-4, coded U5+EK of 2/KG2, and three crew were killed. Some two hours after the crash, Unt Troeser was rescued off Clevedon to become a POW, but it was not until 30th June that a fellow crew member was found, this being the Flight Engineer, whose body was washed up at Portishead. The other aircraft, coded U5+DL of 3/KG2, crashed into the mud one mile off Woodspring Bay, killing the crew of four. Although the cause of the mid-air collision is uncertain, it is quite possible that the aircraft were taking evasive action from anti-aircraft fire prior to or after a raid.

The actual number of enemy aircraft destroyed during the war as a direct result of Avon's barrage, including those that crashed whilst returning, was probably less than a dozen. The night fighters were far more successful, but the very existence of heavy guns, the crack of bursting shells overhead and



Silhouette of a Heinkel bomber on a magazine wall in no 2 pit, Portbury. This important artwork provides us with evidence that it was this gun that brought down the Heinkel over the mudflats in February 1941. Vandals have attempted to remove the render from the masonry.

the sheer effort put into their work by the gunners supported the morale of the Bristolians. Even more important was that with a sky full of shrapnel, enemy bombers could not fly low enough nor fly accurately enough for precision bombing. Bristol and Avonmouth would have shared far worse damage had it not been for the existence of the heavy anti-aircraft barrage.

Remains of the 20 fixed battery sites vary depending on accessibility and value of the land. At least five remain in an exceptional state of preservation (Portbury, Portishead, Easton-in-Gordano, Cribb's Causeway and Rockingham Farm), most of the fixed fittings and masonry still remaining in situ. All of the nissen huts have been removed, just leaving concrete foundations and an occasional brick chimney to remind one of a former military camp. On the emplacements themselves, the bolts to arrest the guns' steadying arms still protrude from the pit floors, while six ammunition rooms in each pit rest doorless but immovable. The enormous hinges of the armour plated doors bear witness to the weight of protection given to the gunners and guns. On some of the pits, notably at No 4 gun, Pur Down, a keen eye will notice twelve groups of white painted numbers on the walls (fig 2). These are the compass degrees, marked at 30° intervals, eg 150, 180, 210, provided to help the limber gunners rapidly point the weapon in the right direction, following orders from the Command Post. At Portbury battery, the silhouette of a Heinkel bomber painted on to a magazine wall in one of the gun pits represents the bomber brought down in February 1941 over the mud. This little picture, overlooking today's agricultural debris, brambles and nettles, provides just a glimpse of the euphoria experienced by the gun crew following the hectic seconds when the enemy aeroplane was captured in a searchlight beam. The German airman, Lt n Rusche, hanging from his silk umbrella would not have shared their emotions.

As farmers endeavour to increase their land area, and new machinery evolves to tear up stubborn concrete, the gun sites are quickly disappearing. For 40 years Pur Down and Portbury sites have been dumping grounds and playgrounds. Now they are a part of history, and, like examples of earlier

defensive military architecture such as the Martello Towers of the south coast, at least one should be protected from clearance and be preserved as a standing monument to the gunners at home.

Near Filton aerodrome and on the edge of farmland (ST 590805), lies another disused military building once used by gunners. It is a three-storey 'flak tower' constructed in post and slab fashion with brick sides and a flat roof platform. It would have supported light anti-aircraft guns for the defence of the airfield, probably heavy machine guns or even a 40mm Bofors. As far as can be ascertained this building is the best preserved example remaining in the west country. Of both architectural and historical interest, this unusual relic should be considered as a worthy building for possible conservation.

Rocket Defences

After two years of war, an alternative to the heavy anti-aircraft shell was brought into front-line operation. This was the rocket projectile, a self-powered shell fired from a guiding rail rather than a barrel. In Bristol there were a few such batteries of rocket launching pads, such as one unit's establishments dispersed at Pill, Abbot's Leigh, Bishopsworth and Brislington. This particular unit, the 9th (Mixed) 'Z' AA Regiment, Royal Artillery, was a non-mobile group, run by both regular personnel and by the local Home Guard. It was classed as a mixed unit because it contained an element of ATS, such as Clerks and Cooks. Headquarters of the 9th AA Regiment was in a requisitioned house near the Suspension Bridge. The Regiment was divided into four batteries, No 210 Battery, for example, manning the Brislington site. This battery's HQ was nearby at Southfield House, off Bath Road. The rocket emplacement contained a Command Post, a magazine, a number of nissen huts and the projector rails. For effective fire control the battery was divided into four sections (similar to an ordinary AA gun Battery), each with sixteen projectors, providing 64 rockets in total, and each projector was connected to the Command Post through a system of sound-powered telephones. The firer of the salvo of the 64 rockets wore the sound powered telephone headset. Rocket projectiles were 3" in diameter and about 4'6" long. Four fins were fixed at the fusing end (tail) to give stability in flight. When the nose exploded, the tube containing the motor propellant fell back to earth, a major disadvantage of the rocket system (whenever the salvo at Cardiff was fired, the sentry on the coast battery on Flatholme Island sounded the alarm, since the tail units invariably landed on the battery's gun emplacements!). Rocket projectiles were not aimed at particular aircraft but fired as a predetermined box barrage or as a line barrage such as that from Pill to Brislington. By 1944 it was realised that the rockets were not as successful as expected, the dangers of the fall back of the tail units, and possibly unexploded rockets (256 rockets would be fired from the four sites at any one time) were very realistic. The other major drawback was the time which it took to load a full salvo of rockets on to the guide rails; their targets could well have flown out of range after the first rocket launch.

After a fair amount of local research I have failed to locate the four known rocket launching pads in Bristol. Certainly the Brislington battery was located in a hollow about '300 yds south of the main road, in the direction of Whitchurch', no doubt now ploughed over. Perhaps the Pill or Abbot's Leigh sites still remain under some undergrowth?

Acknowledgements

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KELSTON VILLAGE, MANOR HOUSE AND GARDEN REMAINS

J Edgar & R Iles

This article brings together information about the medieval and later village of Kelston which has emerged from several recent studies and surveys of the area. In 1978 Margaret Cory produced a detailed study of the landscape history of Kelston parish (1). In 1980, in connection with a Farm Open Day at Manor Farm, Kelston, organised by Avon Planning Department, a survey of some of the old farm buildings was undertaken (2). At the same time a number of new features were recognised, and it was discovered that an estate map of 1744 still existed in private hands (3).

The parish of Kelston (ST 7067) is at the southern end of the Cotswolds on the north side of the Avon valley, about three miles from the centre of Bath. The higher, more steeply sloping ground above 65 m OD, to the north-east, is Oolitic limestone, while the lower plateau area is mainly Lias limestone or Rhaetic measures; the village lies at the junction of all three rock types. Shortage of suitable land for cultivation in the parish has led to the creation of strip lynchets, many of which are now being ploughed out.

History and Ownership (4)

In the Middle Ages the manor of Kelston was part of the extensive estates of the nunnery of Shaftesbury Abbey. After the Dissolution it was granted, in 1546, along with nearby St Catherine's, by Henry VIII to his tailor John Malte and his daughter Ethelreda or Audrey. There is a strong suggestion that Audrey was an illegitimate daughter of Henry. She married John Harington of Stepney, a poet and courtier and the lands were settled on him by Audrey in 1555. On John's death in 1582 the properties passed to his son, also called John (1561-1612).

The second John Harington was a godson of Elizabeth I, who is said to have visited the Kelston estate with its new manor house in 1592 during her progress to Bristol. The cost of the visit is reputed to have forced John Harington to sell St Catherine's Court and other lands. However his other expenses, particularly the construction of the manor house are also likely to have precipitated the sale. During a campaign in Ireland in 1599, John Harington was knighted. Sir John was not only a courtier and man of letters but he had a practical and inventive mind. He designed a fountain for the gardens which operated by a 'tap and other gadgets'. His lasting memorial however, must be the invention of an early water closet.

By the 18th century the Harington family had run into financial problems and in 1759 the estate was sold to Sir Caesar Hawkins, surgeon to George III. He had the Elizabethan manor house demolished and the present mansion - Kelston Park - built by John Wood the Younger in 1765-70 on a new site overlooking the Avon. In 1828 the estate was sold to the Neeld family. As a result of marriage, in 1844, it came into the hands of Colonel William Inigo-Jones, a descendant of the great architect. His family invested heavily in the estate and rebuilt much of the village including the church, school and many estate cottages.

Kelston Village

The village of Kelston today straddles the main Bristol-Bath road. In addition there are a few farms and cottages on the side road leading down to the church (fig 1). It would appear that the focus of the village has shifted away from a nucleus around the church and 16th century manor house to the main road. Settlement remains in the form of earthworks, lie in a field to

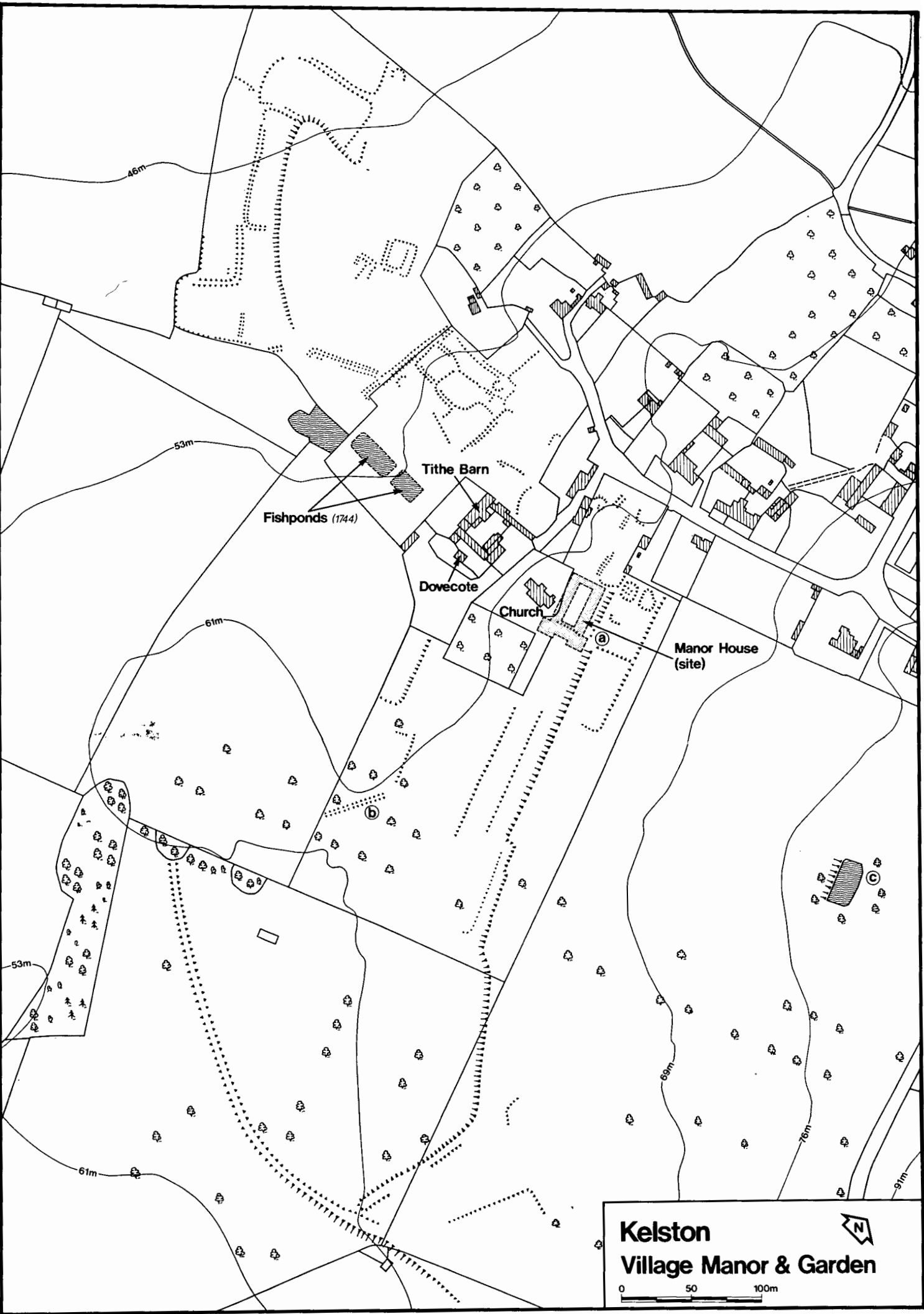


Fig 1 Kelston village, manor and garden remains

the north of the tithe barn. They consist of several closes up to 1 m high and include at least two house sites. In the neighbouring field, to the west, are further remains, some possibly of house sites, but most are probably paddocks and closes.

When did this settlement shift take place? Most of the houses on the main road are 19th century cottages, several with datestones and initials of the Inigo-Jones family. But the 1744 estate map shows a few houses along that road. The same map also depicts only one house in the area of the earthworks, which has since disappeared. So the movement of the village was virtually complete by 1744, assuming that the village did move and not merely shrink in size.

The Manor House

No evidence of a medieval manor house or grange has been found at Kelston but it is likely that one occupied the same site as the Harington manor. This was begun in 1574 by the first John Harington, reputedly to the design of James Barozzi of Vignola, but its execution was mainly due to his son, (later Sir) John, who completed the house in 1589.

The site and plan of the Harington manor house are indicated on Thomas Thorpe's estate map of 1744, in very close proximity to the church. In the later 16th century the church was surrounded by the manor, its farm, estate buildings and garden. The plan of the house was an elongated rectangle with an internal open court. On the south wing there are two tower projections (see below) and on the north side of the house there is an outer court (called the Green Court in Poynton's notes) with surviving outbuildings to either side and two possible ponds (visible as slight depressions) towards the road.

No drawings or records of the manor house have been traced with the exception of a brief description made by Bishop Pococke in 1764 at the time of demolition (Poynton, 1885, 97-8). Pococke's notes, combined with Thorpe's plan, indicate that the main facade - the south wing - was asymmetrical in plan with a large (west) and a small (east) tower. Pococke describes the building as being of 'hewn stone' (probably ashlar or coursed and squared rubble) except the main tower where only the quoins and windows were of 'hewn stone'. The main tower, the larger projection close to the church, is described as having contained the sleeping rooms and the eastern tower contained a staircase. The east and west wings were stables and kitchen offices and no mention of the north wing or of the grounds is made.

Of the architectural details and interior features Pococke gives a few tantalising glimpses. He describes a Doric doorcase with niches in front divided by Ionic pillars and a doorcase at the back with an Ionic entablature surmounted by a broken pediment with a vase in the middle. The windows, described as large and divided into several compartments, are presumably mullioned and transomed. Inside two chimney pieces, Corinthian and Tuscan, were in the main rooms in the central part of the south wing. These classical embellishments are merely secondary to the main design and do not represent a major innovation.

Nothing remains of the house as it was all deliberately and carefully demolished by Sir Caesar Hawkins when Kelston Park was built. However the two outbuildings to either side of the outer court do survive. Both buildings are of coursed lias and oolitic limestone with oolitic limestone dressings and pantiled roofs. They exhibit elaborate and careful detailing for what are obviously not domestic structures. For instance the coping on the gables has a roll mould and a carved finial surmounts the apex; the windows are 2-light moulded stone mullions (mainly ovolo mouldings) with relieving arches above. The door openings, in the gable walls, have four-centred arch heads and there are cross loop openings high in the entrance gables.

The eastern building is entered through the south gable but there is evidence of a blocked entry 2 m wide in the west wall towards the outer court. The interior walls were formerly plastered and a well-constructed stone sett

floor is still intact. The western building is considerably larger, having an upper floor accessible from an external flight of stone stairs on the north gable. This building was once used as a granary with storage and workshop space below - the upper floor now serves as a village hall. Once again there is evidence of blocked openings to the outer court in the east wall. Adjoining the south gable is a later, probably 18th century cottage.

The outbuildings clearly relate to and were part of the Harington manor but their original use and date is difficult to determine. They were probably storage or office buildings and they certainly date from the 17th century and it is likely that they were constructed by Sir John Harington.

Garden and Park

Although there are no visible remains of the 16th century manor house, there is still much to see of its garden layout (5). South of the church is a large walled garden, now a decayed orchard. To the south and east of the former manor house are three rectangular terraces of approximately equal size. In the terrace immediately to the east are the very slight remains, no more than 0.25 m high, of what are probably formal flower beds. Poynton describes this terrace as an 'Italian garden' on an unpublished plan (4), and marks a fountain ('a' on fig 1). The main scarp, dividing the two upper terraces from the lower one on the south side of the house, continues in a south-westerly direction for over 150 m before it has three dog legs in it. The purpose of that long scarp and further ones to the south-west is not known.

Within the garden area is a pillowmound ('b' on fig 1) less than 0.5 m high and with traces of a slight ditch around it. It is on a different alignment to the rest of the garden and may be an earlier feature. The Abbess of Shaftesbury was granted the right of free warren as early as 1294. The fields to the south of the pillowmound are called coneygeare on the 1744 estate map and the tithe map.

The 1744 map shows that the manor house had its own parkland, roughly the same as the present Kelston Park. Two double avenues led from the garden down to a summer house, on the site of the present Kelston Park mansion. Three other avenues cross the double avenue at right angles about 200 m from the former manor. The line of these avenues is still preserved by a few trees. By the time the 1744 plan was drawn this early park had already been divided into rectangular fields. No evidence for the date of the garden or early park has been found, but it seems likely that it was laid out at about the time the 16th century manor was built.

Waterworks

There seems to have been a complex hydraulic system to service not only the fountain in the garden and Sir John Harington's water closet but also to feed a series of fishponds. The start of the system is a deep rectangular reservoir ('c' on fig 1) on rising ground above the manor house. It is supplied with water from springs higher up the hill. The water from the reservoir runs below ground down the hill, first to the fountain ('a' on fig 1) in the garden and then presumably to the water closet in the vicinity of the manor house. Poynton's notes (Bath Ref Library) include an illustration of the fountain and Grimble gives a description of it (1957, 113). At the site of the fountain today is a large flag-stone, under which there is running water in a stone channel.

The water reappears to the west of the tithe barn and flows into an irregularly shaped pond. Between that pond and the tithe barn the 1744 estate and tithe maps show two (now infilled) rectangular ponds. These three ponds together were probably a series of fishponds, although it might have been assumed that the Avon, which forms the southern boundary of Kelston parish, would have provided sufficient fish. A deed of 1759 actually mentions 'free fishing' in the Avon.

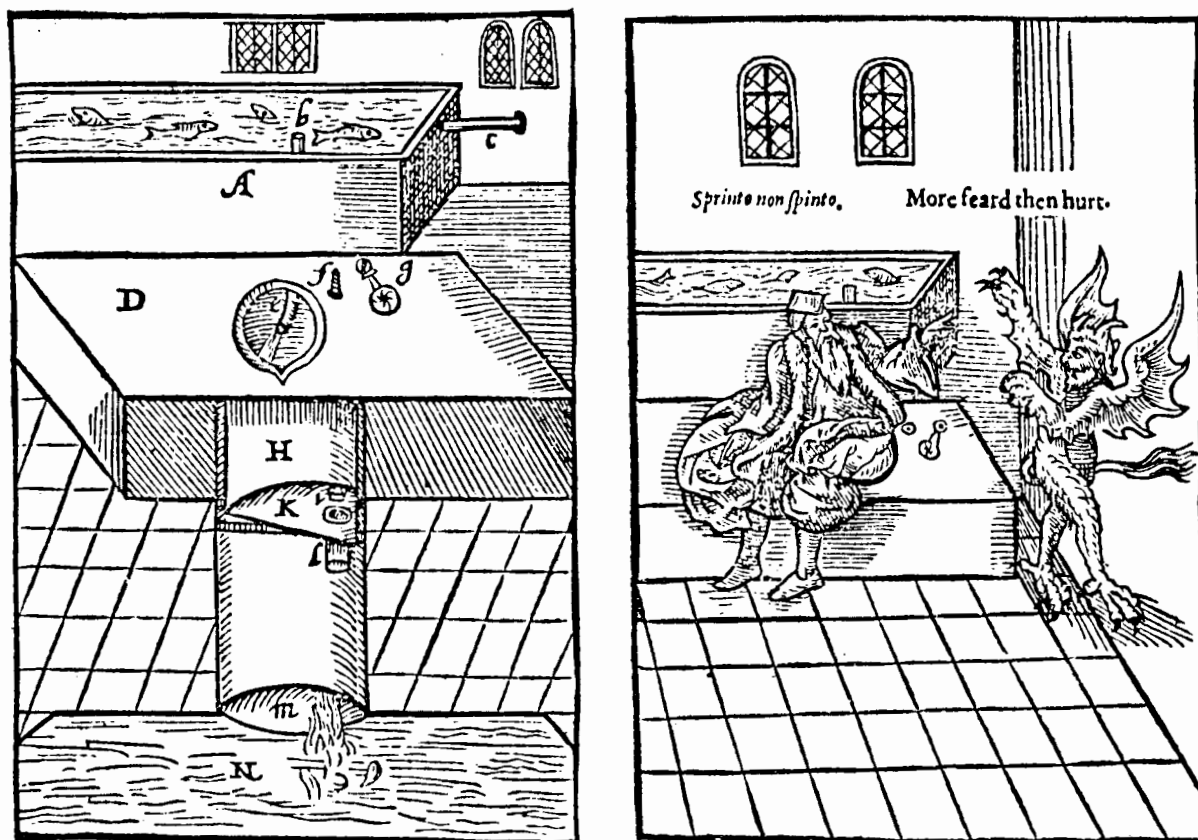


Fig 2 Harington's water closet, from his Metamorphosis of Ajax (1596)

The major novelty of this water supply system was the water closet. Sir John Harington invented this device and described it in The Metamorphosis of Ajax, published in 1596 (6). The frontispiece of the description reads thus:

An Anatomy of the Metamorphosed Ajax wherein by a tri-partite method, is plainly, openly demonstratively declared, explained and elucidated, by pen, plot and precept how unsavioury places may be made sweet, noisome places made wholesome, filthy places made cleanly.

Then follows a description with plans, of how the water closet is made. After that it says:

These things thus placed: all about your vessell and elsewhere, must be close plastered with good lyme and hayre, that no ayre come up from the vault, but onely at your sluice, which stands close stopt, and ever it must be left, after it is voyded, halfe a foote deepe in cleane water.

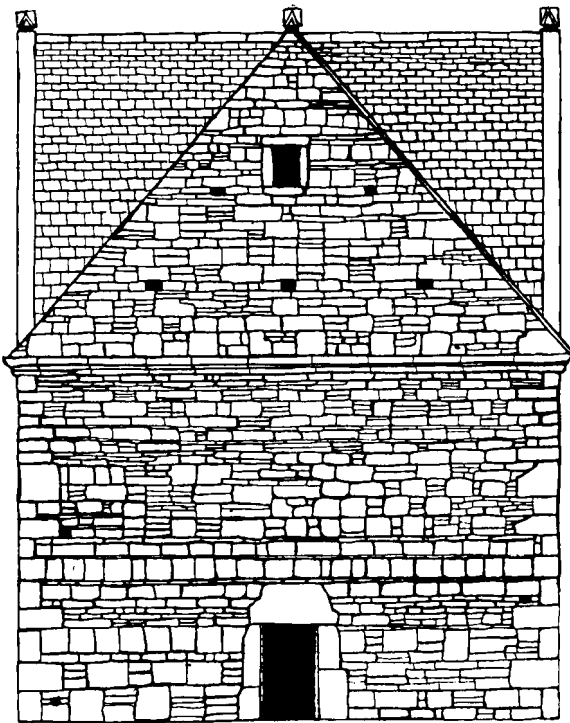
If water be plentie, the oftener it is used and opened, the sweeter; but if it be scant, once a day is enough, for a need, though twentie persons should use it.

This ingenious invention (fig 2) was not copied in Sir John Harington's time and the idea does not seem to have been taken up again until the late 18th century. Nothing remains to be seen of this early water closet at Kelston today, but it is not impossible that its remains might be discovered if the manor house was ever excavated!

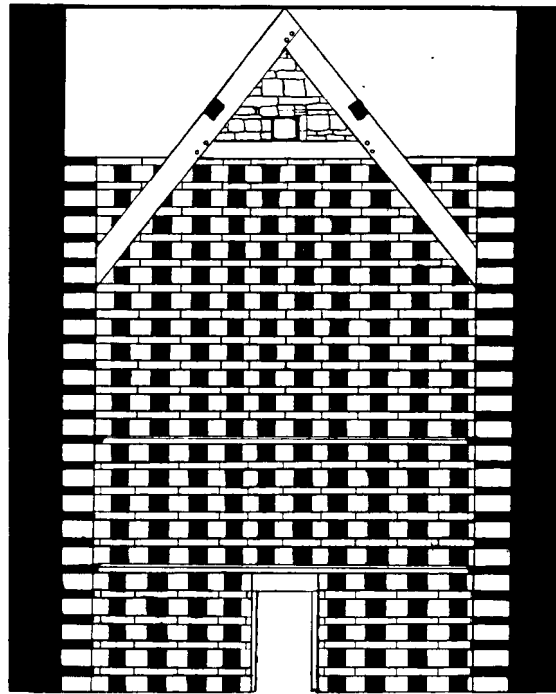
Farm Buildings

In addition to the manor house and its outbuildings two other buildings shown on the 1744 map deserve special notice; namely the tithe barn and the dovecote (fig 1). To the west of the church the farmyard is dominated by

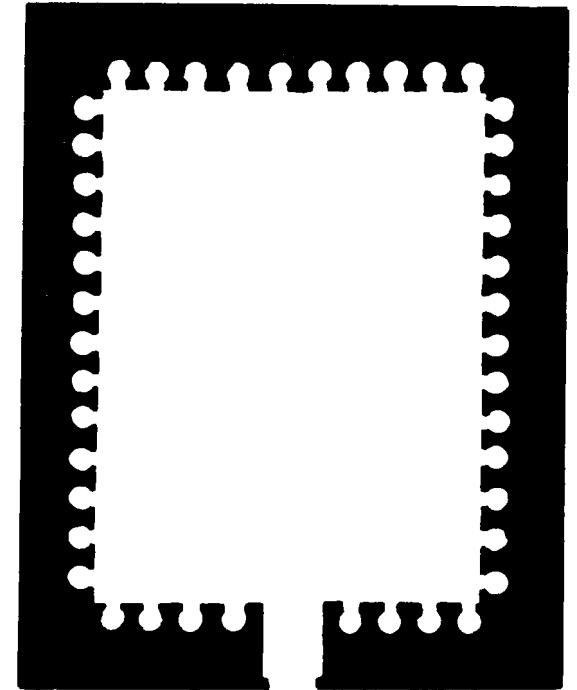
DOVECOTE AT MANOR FARM, KELSTON.



FRONT ELEVATION



INTERIOR ELEVATION



GROUND PLAN

Fig 3 Kelston Manor Farm dovecote: front elevation, internal elevation and ground plan



the tithe barn with its massive arched opening to the buttressed and gabled porch. The barn is typical of the area - a limestone rubble built, Cotswold type barn with narrow ventilation slits. The barn is seven bays long. Unfortunately the roof was renewed in the late 1940's, so nothing survives of the original trusses. The larger windows and the first floor were probably inserted in the 19th century, indicative of a change of function. The only internal feature of any note is a blocked, moulded four centred arch doorway just to the left, inside the porch. This is difficult to explain as there is no evidence of the doorway on the exterior.

To the south of the main part of the farmyard stands a large rectangular dovecote (fig 3). It is probably the largest in Avon, having 890 nesting boxes. Approximately 8 m high and 6 m wide across the front elevation, the dovecote is gabled on all four sides. The building materials are blue and white lias limestone coursed rubble with oolitic limestone dressings and split limestone slabs on the roof. The pigeons formerly entered by openings in the east and south gables and through a lantern (now destroyed) on the roof. Inside the nesting boxes are all carefully constructed of sawn oolitic limestone.

Both these buildings are difficult to date, although they are probably contemporary. Rectangular dovecotes of this type are usually assigned to the post-medieval period. It might be that, as with the outbuildings, they date from the early 17th century, the known period of substantial development of the Kelston estate. It is just possible that both these buildings belong to the period when Kelston was owned by Shaftesbury Abbey, before 1539. Certainly Shaftesbury Abbey built many impressive barns, such as that at Bradford-on-Avon, on its estates.

Acknowledgements

We would like to thank the tenant, Mr Withers of Manor Farm and the owner Mr Neeld for access. We are also grateful to Mr R Sutcliff and Mr E Dennison for assistance with surveying, and Mr R Sutcliff and Mr A Patch for drawing the plans. Special thanks are due to Mrs M Cory and Dr J Bettey who provided us with much information.

Notes

- 1 Mrs Cory's dissertation was done for a Bristol University Extra-Mural course.
- 2 A booklet, Manor Farm, Kelston: The Farm Buildings and Village History, written by James Edgar, included some of that material.
- 3 Mr Neeld of Rowley Farm, Combe Hay, has the estate plan of Kelston, surveyed in 1744 by Thomas Thorpe, and he kindly let us see it.
- 4 These notes and other historical details are mainly from F J Poynton, Memoranda of Kelston (1878), and his manuscripts and drawings in Bath Reference Library; and from I Grimble, The Harington Family (1957).
- 5 For other early formal garden remains in (post-1974) Somerset see M Aston, Proc Somerset Archaeol Nat Hist Soc, 122 (1978), 11-18. Other places in Avon with possible early garden remains include Claverton Manor, Tortworth Court, Little Sodbury Manor, Horton Court, and St Catherines Court.
- 6 The description of the water closet, taken from The Metamorphosis of Ajax, is reproduced in full in Rhys Jenkins, Collected Papers (1936), 145-147. We are indebted to Dr J Bettey for this unusual reference.

WESTEND TOWN, MARSHFIELD

Sian Williams

Westend Town is a small settlement, consisting of a farm and two houses, less than a mile north-west of Marshfield. There has long been a tradition that this was the site of an early settlement which predated Marshfield and was associated with the legendary St Pancras' church. 'There, it would appear, was a church of St Pancras, still marked by a field called St Pancras' Close, and in it a well known as St Pancras' Well' (1).

The area was examined between January 1979 and June 1980, and the earthworks recorded on either side of a track leading from Westend Town Green to Brookhouse Green. It is probable that at least some of these represent remains of a dispersed linear settlement pattern (fig 1), centred around and between the two greens. Just to the west of Westend Town Green is the well known and well preserved medieval long house in the yard of Castle Farm. The following describes the earthworks surveyed.

Plan A

ST 761741. The western group of earthworks are situated on top of the ridge, mostly rectangular hollows and low stony banks about 0.5 m high. These features have been badly damaged by later quarrying.

ST 763742. On the northern part of Brookhouse Green are slight remains of two house platforms, bounded by stony banks, generally less than 0.5 m high.

ST 763741. Another group, to the south of Brookhouse Green consists of two phases of small, rectangular house platforms. The earlier platforms, aligned north-south are about 0.5-1 m high. The later ones, consisting of five much more substantial platforms, up to 2 m high, are aligned south-west to north-east. These underly the present field boundary and are probably associated with a narrow hollow way which runs parallel with that boundary, less than 1 m from its northern side.

Plan B

ST 765742. In the field called St Pancras Close there are small rectangular enclosures bounded by low, stony banks less than 1 m high which appear to run under the southern field boundary. Here again the pattern has been severely damaged by quarrying, and the construction of the field boundary.

ST 767743. In Stone Close a jumble of low banks and hollows can mainly be attributed to stone quarrying. Further remains may have been destroyed by the construction of the barn to the south of this field.

ST 769743. North of Westend Town Green there are another group of possible house platforms. Just to the north of these are slight remains of ridge and furrow running east-west down the slope of the hill. The two most substantial of the platforms are slightly to the north of the main group and are about 2 m high. Other, lower terraces underly the southern field boundary. The field to the south of the Green has been ploughed in the past and is now pasture; no structures or finds were visible here.

Substantial terraces can be seen in the southern corner of St Pancras Close, but these are probably natural, caused by water erosion, and have not been surveyed.

The fields in this area are under pasture and, so far, no dateable material has been found on any of the sites mentioned. The earthworks predate the present field system, but no record has yet been found of when this was established. Traces of strip lynchets remain in some of the surrounding fields (ST 762742 and 763740), which may be associated with the earthworks.

Acknowledgements

Thanks are due to the landowner Dick Knight of Castle Farm, Marshfield and to Rob Iles and Bob Sutcliff for help with surveying.

Note

1 Trans Bristol Gloucestershire Archaeol Soc 29 (1906), 53-4

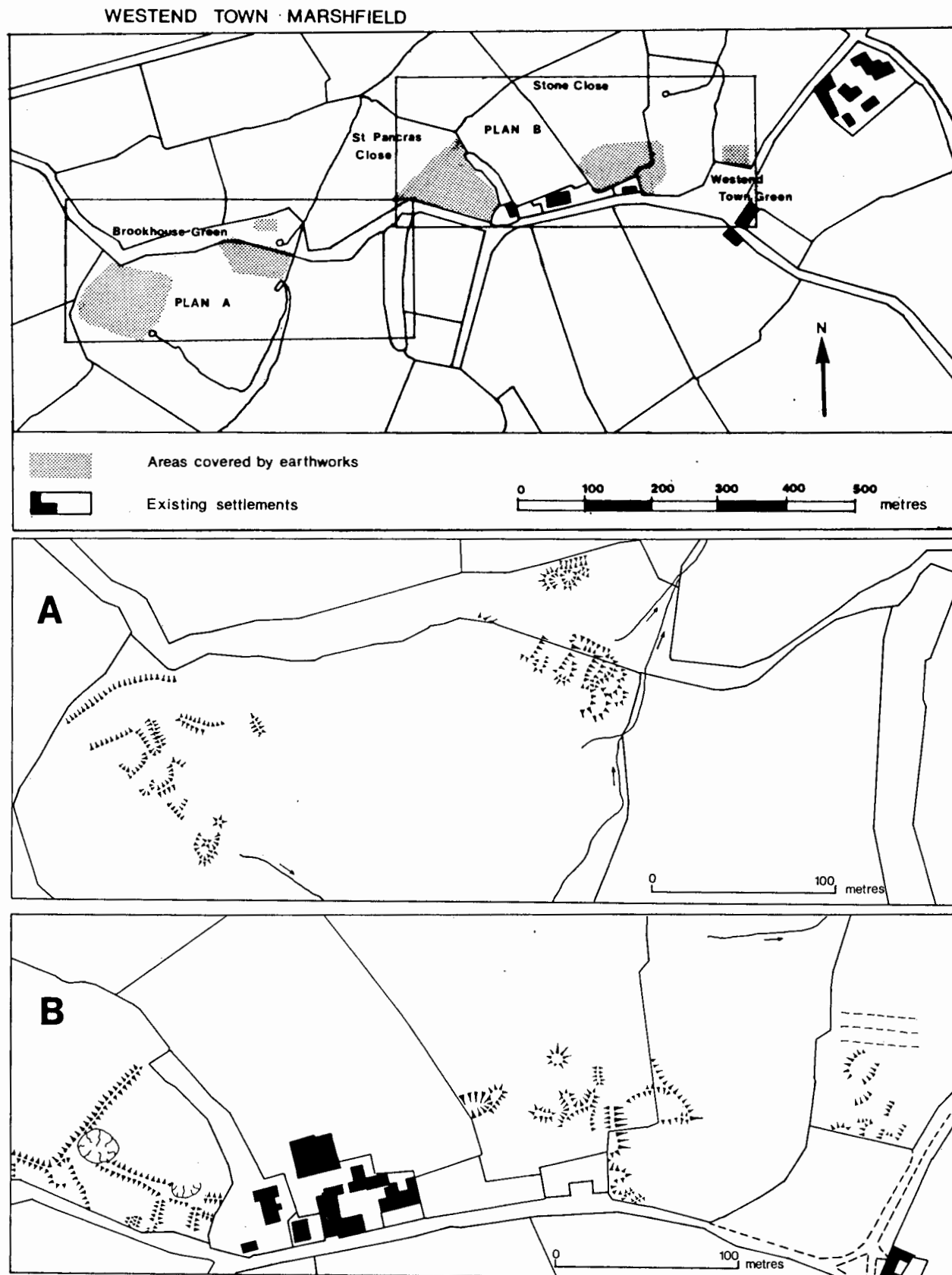


Fig 1 Westend Town, Marshfield: location and plans of earthworks

BOOK REVIEWS

Excavations in Bath 1950-1975 edited by B Cunliffe, CRAAGS, 1979.

This book consists of 19 separate contributions from a number of writers. It gathers together in a convenient form reports on a number of excavations, essentially of the rescue type which have been undertaken in Bath during the post-war years up to 1975. It also includes reports on a number of finds made in Bath and its immediate neighbourhood. Its editor, Barry Cunliffe, is at pains to point out that 'no single site described ... is particularly dramatic or of outstanding significance'. But he is too modest - one contribution, as we shall see, raises questions regarding the very nature of the place, effecting as it does the development of the temple area.

In his introduction Cunliffe very properly draws our attention to the possibility of a Claudian fort in the Bath area; certainly one might be expected to complement those at Camerton and Nettleton. Ian Richmond, long ago suggested such a fort at Bath to guard the river crossing. Cunliffe mentions two sites as good candidates, both of which have produced pre-Flavian Samian. The Citizen House site has much to commend it, giving a good westerly siting towards the Bristol Channel and away from the territory presumably already pacified. However, in this connection it should be noted that Wedlake's early ditch (fig 33) from the adjacent St John's Hospital site has a decidedly unmilitary-looking profile.

J Patrick Greene's report on his excavations on the Citizen House site, which is by far the largest contribution, contains a very useful collection of reports on pottery, small finds and bones. Discussion, we are told, has been kept to a minimum in all the contributions, but surely this is one which cries out for both summary and conclusions if only to support and discuss the rather vague evidence for Periods 9-11. There is, for instance, an assumption of a Roman defensive wall and an earthen rampart upon which it is alleged a timber building was erected in period 10 prior to the Battle of Dyrham in 577. All this is moonshine and there is no real evidence to support it. Cunliffe too appears to strain the evidence when he says (p 2) that both here and at Abbey Green the site occupation extends into the fifth century (presumably by this he means beyond the first decade or so?). Certainly the amphorae, recovered from the Citizen House turn out not to be of the post-Roman B11 type previously suggested (p 9). Cunliffe's own report of his excavation on the adjacent site in 1964 (B Cunliffe, Roman Bath, research Report XXIV of the Society of Antiquaries, Oxford, 1969, 175) stated that the area then examined did not appear to have been occupied during the first or second centuries; although this must be modified by his statement later in the same report that a masonry building was erected sometime in the second century. Greene on the other hand claims that his adjacent site begins in the pre-Flavian period with the recovery of painted plaster from a timber building.

Small scale excavations in urban areas can produce quite misleading results and demonstrate the need to exercise great caution in drawing general conclusions. An unfortunate inhibiting factor which has operated in Bath for some years, has been the uncritical acceptance by most recent workers of the idea that Bath was a Roman town. There is no evidence to support such a theory (see below).

Wedlake's report on the work he did on the Arlington Court site, when he was able to confirm in broad detail the observations made by Irvine in 1867, during the building of the Grand Pump Room Hotel, is perhaps the most worthwhile contribution in the publication, not least because he was able to examine

the foundation wall (fig 28) surrounding the temple podium some 4.27 m from the podium foundations on the south and west sides. Cunliffe dismissed too easily (Cunliffe op cit p 36) the parallel with the Temple of Mars Lenus at Trier and suggested that the wall supported a free standing colonnade; he contended that a classical temple would not fit with a surrounding ambulatory. But the Trier temple, which is a classical one, precisely demonstrates such a development with a surrounding ambulatory and harks back to the Romano-Celtic type, which it may have replaced on the same site. (Conveniently shown in both plan and reconstruction in Axel Boethius and J B Ward-Perkins Etruscan and Roman Architecture, The Pelican History of Art, 1970, fig 132.)

Cunliffe also says that the enclosing foundation is not parallel to the base of the podium foundation and this certainly appears to be so in fig 28. But the position of the podium may not be as 'askew' as it appears; only a comparatively small portion of it has been observed and its casing had been removed when seen by Wedlake and only the rubble core remained. Baatz in a review (Britannia II, 1971) suggested that it might be an enclosing wall to reduce the size of the temenos at some late stage and cites the evidence produced by Wedlake in 1959 (fig 28) when he recorded a late hypocaust arrangement inserted into the south side of the temenos area, suggesting a westerly extension of the baths. An alternative and more attractive explanation might be that the foundation represents the remains of a Romano-Celtic temple which was later replaced by a classical one. There are plenty of good parallels for this in Gaul and this would change our concept of the nature and origins of Roman Bath. Tom Blagg (Britannia X, 1979, p 101-8) has recently argued for a first century date for the classical temple at Bath on stylistic grounds, but the dating would still appear to be open and in any case the early replacement of a Romano-Celtic temple with a classical one is perfectly feasible.

Most archaeologists and historians have slavishly followed the conception of Bath as a town in Roman times. This is influenced no doubt by its post-Roman status. They should rid themselves of this concept and consider the evidence as it stands. No significant building relating to any form of administrative centre has yet been discovered or recorded in Bath and I venture to suggest that none ever will. The majority of buildings so far excavated have been devoted in some way or other to the exploitation of the mineral springs. I would see Bath as a rural unwallled sacred site, albeit on the grand scale; one need only look across the channel to Gaul to find countless such examples. Bath then takes its place with these other water shrines furnished with a classical temple.

Cunliffe again bases his thesis of dense occupation in the Walcot Street area and elsewhere on slight evidence (p 2). The Roman burials discovered in the Bath area are scattered in small groups and need represent no more than the burials associated with the small Roman villas in the neighbourhood. A Roman cemetery on any substantial scale has yet to be discovered.

Cunliffe's own summary of the history of the Abbey and its Precinct is first class and it is hardly his fault, or indeed of some of the other contributors, if there is some confusion about the status of the Church during its various phases. Sufficient to say that ruled by a mitred abbot in the late Saxon period, it was an abbey following the rule of St Benedict and thereafter, following the removal of the See of Somerset to Bath in the late eleventh century it became a Benedictine Cathedral Priory whose prior tried unsuccessfully on at least one occasion to improve his position by asking the Pope to allow him to wear pontifical vestments.

There has recently been a rescue excavation on the site of Upper Borough Walls in Bath and there have been vague hints that the Roman wall has been discovered there. Well we shall have to await the publication of the sections to see what the evidence is. Unfortunately, the excavation appears to have been a brief one, surprisingly really considering that ample time was available

to allow adequate examination. Clearly, however the safety factor presented some difficulties for the excavators. Nevertheless we shall expect some good evidence from this site, with the opportunities it gave to cut several sections across the defences, whatever date they might be.

Despite a number of shortcomings we are all very grateful for this publication and it adds appreciably to our exiguous knowledge of the archaeology of Bath. We look forward to the publication of the discussion of this work promised us in the preface. The standard of production is pretty reasonable considering that it went through the hands of more than one printer, although a number of the pages in my copy have blurred print. There is ample evidence of rather hasty proof reading, which is inexcusable for a professional publication. On p 92 some modest person has turned the 'Bum' ditch into the 'Burn' ditch. There are numerous instances of page numbers not corresponding to those given in the Table of Contents and Wedlake's paper on St John's Hospital has been made difficult to interpret because fig 33 lacks the letter identification referred to in the text. The plans figs 79-84 are well drawn, but it is a pity that fig 84 shows 'Site of St Michael's Church' where St Mary's at the Northgate should be. My folding figs 36-37, on one sheet, came away at an early stage from the binding, not surprising perhaps as the Table of Contents places it between pages 89 and 90 which are on opposite sides of the same sheet. Theodosius I (the Great) would have been fortunate indeed to have enjoyed the long reign attributed to him on p 9, particularly as it begins some 15 years before he was born!

Peter Greening

The Landscape of Wessex by J H Bettey, Moonraker Press, 1980. 168 pp, 63 black and white illustrations, 4 pp of colour plates, £8.95.

From its start with a beautiful photograph of the lake and temple at Stourhead on the book-jacket, to its final chapter on 'The Great Estates', The Landscape of Wessex might be taken to be serenely preserved gems of 18th century parkland. In fact, inside the sturdy covers of this well-made book, Dr Bettey ranges in content and illustration from prehistoric to 20th century landscapes, from country to city, and from 'Celtic' fields to motorways.

It is a short book, which yet has considerable breadth of both territory and subject-matter. Dr Bettey takes his Wessex to cover much more than the standard Hardy-esque area: all of Dorset, Somerset and Wiltshire and the whole of newcomer Avon as well. The varied geology of this large area has produced a diversity of landscape and of land use; and in his introduction, Dr Bettey comments on the geology particularly in terms of building materials and their use. Prehistoric, Roman and Saxon periods are summarised somewhat breathlessly in one chapter which is almost an extension of the introduction, and would perhaps have been better as such. The book really begins with Chapter 2, dissecting the landscape by kind: fields and farms, villages, towns, churches, country houses and estates, ports and harbours, industries etc. Within a chapter on fields, towns or roads the author ranges back to 'Celtic' fields, Saxon burhs or Roman roads onwards to the present day, within a few compact pages. Such briskly wide-ranging coverage is balanced by his clever use of examples: a great feature of the text of this book. Dr Bettey juggles evidence on the ground, excavation results and quotation from documents, to bring out the essence of the subject in a short space without any undue sense of over-compression: a feat which must have been as difficult to achieve as it is easy to read. In particular, his use as examples of places and sites from all over Wessex lifts the book above the level of an 'introduction' to the subject. Examples from opposite ends of the region are deliberately juxtaposed, well-known next to little-known - medieval field-systems from Corfe and Little

Solsbury, churches on pre-Christian sites at Moreton and Oldbury-on-Severn (pp 31, 94) - turning what could have been rather a catalogue into a stimulating survey bringing together features that, for any reader, may be new and are certainly often unexpected.

The chapters are clearly subdivided into sections. The single chapter covering industries and roads and canals and railways seems, by the time that industries have been further subdivided, to be rather overburdened and lacking space proportionate to the vast impact that these developments have all had upon the landscape. Ports and harbours are, for once, separated from other towns and given their own chapter on 'the Coast', as befits their intrinsic landscape characteristics. The church in the landscape deals not only with church buildings, but also with the church as landowner and estate-manager. Dr Bettey's chapter on villages is particularly interesting, not only for his analysis of the 'classic' rural types in a local context, but for his attention also to picturesque Milton Abbas and Blaise Hamlet (p 56-7) at one extreme and squatters' settlements (p 52-6) at the other. His best examples of squatters' settlements come from the area east and north of Bristol, in that part of Avon sandwiched between pre-1974 Somerset and the Cotswolds and too often neglected in regional surveys. The need for brevity and compression does not, however, bar ideas and suggestions. Concluding sections to several chapters discuss visual evidence surviving today and its analysis, leaving an encouraging impression of work that needs to be done, and of ways in which Dr Bettey's suggestions might be applied to one's own 'patch'. No doubt in the interests of readability and brevity, there are no footnotes or detailed sources; but the bibliography, though brief, is very up-to-date and should be sufficient to provide a lead to more detailed, specialised studies as required.

The outstanding feature of the book is its copious illustrations: over 70 altogether; and a special joy to BARG members will be the fact that a large proportion of them are by our own Jim Hancock. Dr Bettey has drawn on Jim Hancock's magnificent collection to make this virtually 'the book of Hancock photographs' which we have so long hoped for. Here safely between hard covers is that splendid juxtaposition of Wansdyke and the Almondsbury Interchange, linear earthworks both; deserted Maiden Castle and crowded Bath town centre; Knowlton church in its henge, and the odd pattern of a deserted duck-decoy near Cheddar. Of the remainder of the monochrome illustrations, many have been photographed by Dr Bettey himself, and all are built into the text with the neat, apt captions that are his trademark. Perhaps he will tell us someday the story that must lie behind his photograph on p 105, with the cat padding down the path to Tarrant Crawford church, where (according to his caption) the nuns in the 13th century were banned from keeping pets, 'save only a cat'. Was poor moggy hijacked from the Bettey homestead to act as a model?

Profuse illustrations, well tied in to a good text, make this one of the best-balanced books on the region for a long time. The whole book is well produced, and shows that modern planographic printing methods need not be an excuse for dazzling type, ill-proportioned layout or smoky illustrations. Two silly flaws mar this otherwise classic, visually pleasing production. The chapters have numbers in the contents list, but none in the book - neither or both would seem more sensible. The two leaves (four pages) of colour photographs seem to have been put in as an afterthought ('can it be, we have got a bit of cash in hand ...') without numbers and without inclusion in the list of illustrations (p 164) - a nonsense which is only emphasised by the care given to the black and white illustrations in these respects. These points apart, the book makes a sound introduction to the landscape history of our region, for the newcomer; and a stimulating source of fresh ideas and new places to explore, for those of us who thought we knew a bit about some of it.

Frances Neale

Medieval England - An Aerial Survey by M W Beresford & J K S St Joseph, Cambridge University Press, 2nd edition, 1979. 286 pp, 118 photographs.

Medieval England - An Aerial Survey was first published in 1958. At that time study of the landscape, in the way we see it carried on today, had hardly begun. W G Hoskins' The Making of the English Landscape had only been available since 1955 for example. Nevertheless Professor Maurice Beresford was already committed to marrying field archaeology and economic history and Professor J K St Joseph's fine collection of air photographs was already being developed. The publishers, Cambridge University Press, at the time were not convinced that books on topography would sell; Monastic Sites from the Air (Knowles and St Joseph) was only published in a limited edition in 1952 and most of the copies were remaindered. Medieval England suffered in the same way. In the first edition the quality of production, particularly of the photographs, left a great deal to be desired. It rapidly went out of print and secondhand copies could only be obtained with a mortgage.

It was therefore with a great deal of relief that many field archaeologists, geographers and historians learnt that CUP intended to reprint Medieval England and one has had to congratulate the publishers at their second attempt for such a splendid volume; the book feels 'right' as soon as you pick it up. It consists of 118 of Professor St Joseph's superb air photographs, and it is noticeable how the pictures taken since 1958 are better in quality reflecting St Joseph's growing expertise, with a splendid text by Professor Beresford accompanying and describing each picture. For a number of sites there are also sketch plans and prospects and, as in the first edition, many places (29) have early maps to complement the photographs and text. Thus the 1444 map of Boarstall in Buckinghamshire, surely one of the earliest village topographical maps in Europe, can be compared with a vertical air photograph (figs 41A and 41B) and the important parish of Padbury (also in Buckinghamshire) has both oblique air photographs of the village (fig 117A) and fields (fig 7A) and plans of the fields in 1591 (fig 7B) as well as parish maps of 1591 and 1955. It must be said however that there is little material for the Bristol region, the distribution map of places illustrated in the book having noticeable gaps in the West Country, the West Midlands and the South East. Perhaps understandably (in 1958) attention is clearly focused on the South East Midlands and the North East.

It is unkind to carp about aspects of such a book; not only is it now available again but it has the best collection of air pictures of medieval sites available anywhere and at £10 it represents the best buy in books at the moment in any aspect of archaeology or local history. However landscape studies have developed since 1958 and despite changes in some air photographs and some revisions of text there are gaps in the authors' cover of the medieval landscape which should have been filled in this later edition. There is for example little on field systems other than open types with ridge and furrow and since new work is showing the importance of both assarting and areas which have never had open fields, some examples of them should have been included. This reviewer also found the Fabric of the Village chapter lacking in good examples of crofts and platforms, common features of deserted villages although it is pleasing to see that enigmatic pillow mounds are included and a map of a rabbit warren with them. More could also have been said about village territories, boundaries, and village plans (particularly in relation to Dr Brian Roberts work in the north). Fig 35 of Garrow (Bodmin Moor) misleadingly does not include the medieval settlement described in the text and a number of the places in the village plans section are in fact medieval towns.

However these are minor points of criticism. This is an excellent book about the English landscape, it is by far the best book on medieval earthworks and it should be a constant companion of any field worker or local historian attempting to unravel the field evidence of his or her patch of countryside. The publishers in particular are to be congratulated for risking a very large

print run thus enabling this reviewer to be able to afford a new archaeology book at last! Perhaps they can be encouraged now to produce other such volumes on the fine Cambridge collection of air photographs.

M Aston

Worlebury: The Story of the Iron Age Hill-fort at Weston-super-Mare by Jane Evans, Woodspring Museum, 1980. 22 pp, profusely illustrated, 50 p.

In this booklet, written for the average enlightened visitor, evidence of occupation of Worle Hill from the earliest times to the 19th century is reviewed, with emphasis on the Iron Age hill-fort. The Stone Ages are represented by pleistocene animal remains, stone axes and flint leaf arrowheads. The Middle and Late Bronze Ages are illustrated by bronze implements of those periods. The gap in the Early Bronze Age is apparent rather than real, as the reviewer saw a flat axe of copper or bronze, labelled as from Worle, in the window of the Antique Shop, 15 High Street, Glastonbury, on a Sunday when the shop was closed, about 1973 or 1974.

The text is simply and admirably written, and the illustrations include an air-photograph of Worlebury Hill (on the cover) by John White (West Air Photography), plans of the hill-fort and its surroundings, and pictures of the finds, including an interesting and unusual wooden frame possibly of a lyre (Iron Age or Roman?). There are four pleasing reconstruction drawings by Brian Parrish.

The earliest archaeological excavation of the hill-fort was done in 1851 by antiquaries including John Thurnam (subsequently an eminent authority on barrows and their contained skeletons) and Edwin Martin Atkins of Kingston Lisle (who had a year or so previously excavated some of the Lambourn Seven Barrows on his estate in an exemplary manner far in advance of his time). Some 30 years later surveys and excavations at Worlebury were done by C W Dymond, sometime Chief Engineer on the Bristol to Exeter Railway, whose book (second edition 1902) remains a classic.

Only two minor errors have been noted: sewing for sowing (p 10); and the Imperial equivalent for 60 metres is 66 (not 55) yards (p 11). Finally, nothing would be lost by the substitution throughout the text, of the noun antiquary for antiquarian, surely properly an adjective but becoming increasingly misused as a noun.

L V Grinsell

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Publications

Field Guides, edited by Leslie Grinsell

- 1 a. Prehistoric Sites in the Mendip, South Cotswold, Wye Valley and Bristol Region, by Leslie Grinsell. 1970. Price 50p.
- 2 a. Roman Sites in the Mendip, Wye Valley and Bristol Region, by Max Hebditch, Leslie Grinsell and others. 1974. Price 50p.
- 3 a. Earlier Medieval Sites (410-1066) in and around Bristol and Bath, the South Cotswolds and Mendips, by Elizabeth Fowler and others. 1980. Price 95p.

Special Publications, edited by Leslie Grinsell

1. The Mendip Hills in Prehistoric and Roman Times, by John Campbell, David Elkington, Peter Fowler and Leslie Grinsell. 1970. Price 50p.

BARG BULLETINS, issued in Spring, Autumn and December between 1962 and 1979. Price 30p each.

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