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REFLECTIONS ON THE CULTURAL CONTEXT AND FUNCTION OF THE WEST WANSDYKE

M. Whittock

The extensive and authoritative survey of the Wansdyke linear earthwork, in 1986 and 1987, by the ACCES team prompts a reconsideration of the Cultural context of the earthwork and its function within its region. This essay is an attempt to highlight some of the wider and theoretical issues raised by the course of the Wansdyke.

The enigmatic nature of this feature begins with interpretation of its name. Based on an original form of "Wodnes Dic" (Woden's Dyke/Ditch) its celebration of this principle pagan Old English Deity prompts serious enquiry. The name form is first recorded in the 10th century. As such it applies to both dykes which carry the name (ie West Wansdyke in Avon; East Wansdyke in Wiltshire and Hampshire). Whilst the earliest reference is from 903 (BCS 600) the West Wansdyke is well represented in the "Stantonbury Charters" for the years 936, Marksbury (BCS 709), 963 and 965, Stanton Prior (BCS 10019, BCS 1164). These charters have undergone recent and fruitful examination (Costen, 1983). It has been assumed in some quarters that the reference to Woden implies that the early Anglo Saxon settlers did not know who had dug the dyke. This is difficult to square with recent research which suggests a late 5th/early 6th century date for the East Wansdyke (Myres 1986, P155-8). Other work produced a possible late sixth century date and associated its construction with the career of the chieftain Ceawlin (Fisher 1973, P36. Whittock 1986, p214). An alternative assumption is that Woden was associated with tribal boundaries. This is apparently a fruitful line of enquiry since it provides cultural evidence for the interpretation of this archaeological feature. Unfortunately we know all too little about the cult of Woden in the 6th and 7th centuries. Whilst it is clear that his cult was in the ascendant, among the warrior aristocracy of the migration and settlement periods, little else can be clearly discerned.

Reference has been made to the link between Woden and the numerous Grim's Dykes and Grim's Ditches. (Gelling 1978, p148-9). The name is derived from the Old English "grima" (a mask). Since in later Norse mythology Othinn (Woden) was nicknamed "Grimr", it is likely that a similar relationship occurred in early English mythology. This would imply that Woden was frequently associated with boundary features or perceived boundary features. However there is no independent evidence of such a symbolic relationship and the argument has a dangerous circularity about it. Without additional evidence, from literary sources, the contention lacks force.

Before the literary and historical evidence is left, in favour of the archaeological, one further line of enquiry may repay attention. The approximate date for the construction of the West Wansdyke has "floated" between Ceawlin's Victory at Dyrham in 577 AD, to the period following the West Saxon clash with the Mercians at Ciren-

chester in 628 AD. When an early date is assigned to the earthwork, it is usually assumed that it was built as a British defence line. When a later date is considered, it is often seen as a West Saxon response to Mercian aggression. A date later than the mid seventh century is rarely mooted since the name evidence suggests a construction before, or during, the pagan settlement of the land south of the Avon. In this essay the earlier date boundary is favoured. This is for two main reasons. Prior to the late 650's West Saxon colonisation of the relevant area lacks firm evidence. In 652 and 658 West Saxon warbands are recorded as penetrating as far as Bradford on Avon and Penselwood respectively. Prior to this a significant Anglo Saxon population, south of the Avon, is difficult to accept. The limited nature of the archaeological evidence - inhumation burials at Saltford, (?) Burnett, Camerton and Buckland Dinham - underlines the peripheral nature of early - mid seventh century Anglo Saxon "settlement".

In addition Chronicle entries for 661, and 676 reveal the targeting of Mercian aggression on central southern England (Ashdown, Isle of Wight, Kent) not on the west country. The establishment of a see at Winchester, in the 660's, is best understood as a West Saxon response to Mercian expansion in the Thames Valley and the loss of Dorchester on Thames (Fisher 1973, p78). Clearly the west country was not the principle "bone of contention", in the decades following 628. This points to the likelihood of an earlier date for the Wansdyke's construction.

Whilst this discussion illustrates some of the problems involved in dovetailing historical and archaeological data, it does at least provide some form of rationale for the dating of the earthwork. Imperfect as this may be, it does at least allow for the reconstruction of a cultural context for the Wansdyke. According to this dating framework, it should be placed in a British milieaux, of the late 6th century AD. Once this has been tentatively established, it is then possible to relate the course of the earthwork to other forms of archaeological evidence. In this way the course of the Wansdyke can form part of a theoretical territorial mapping, based on the post Roman settlement pattern attested by archaeological excavation.

Figure 1 suggests post Roman theoretical territories and zones of interaction between archaeologically verifiable settlements. It is based on territorial boundaries formed by unweighted Thiessen polygons. The boundary framework assumes a uniform decay of authority between neighbouring settlements. It also assumes contemporaneity of occupation at each settlement. This is not likely to be the case, for the 6th century, at Buckland Dinham (the only Anglo Saxon centre noted). Here the community, represented by the inhumation cemetery, is unlikely to predate the beginning of the 7th century.

The frameworks suffer from the inevitable boundary

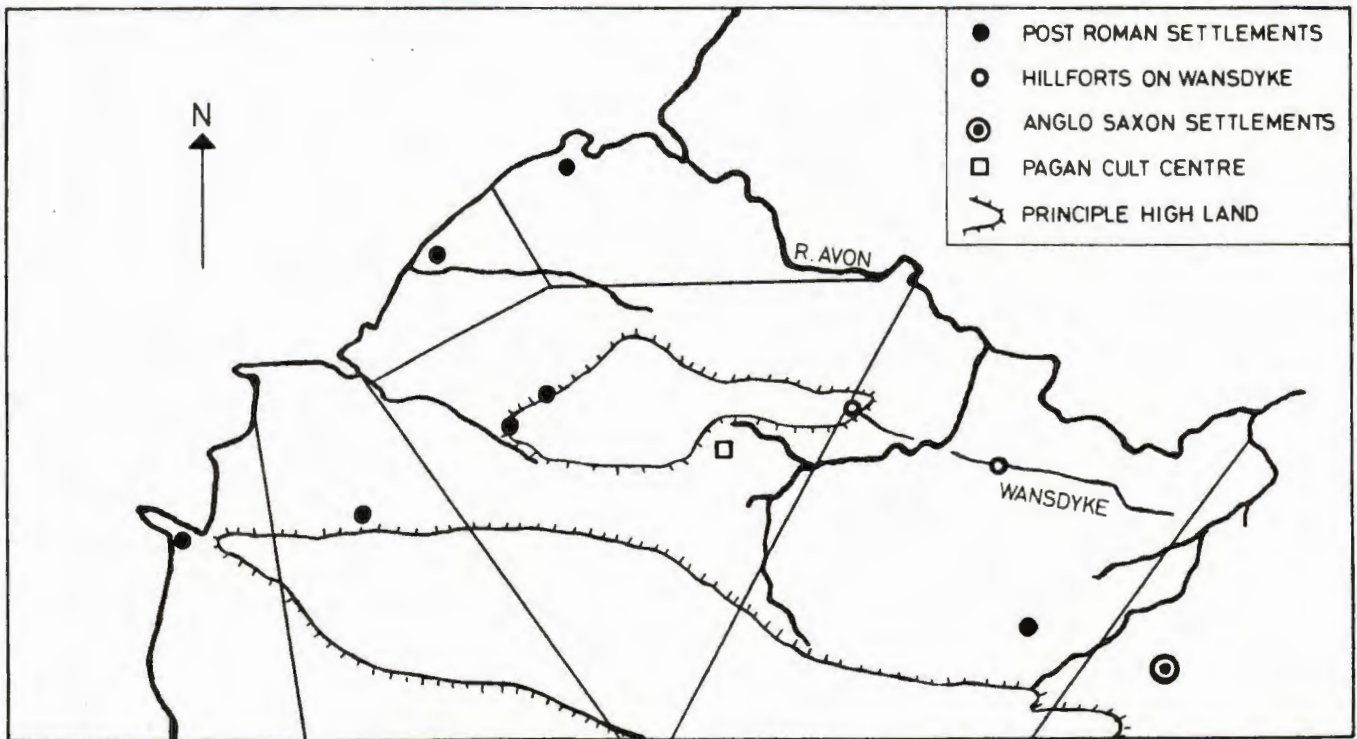


Fig 1 Post Roman Theoretical Territories and Zones of Interaction

These territories are based on unweighted Thiessen Polygons. They represent a theoretical framework of territories based on centres of Post Roman settlement. Centres within 5Km of each other are classed as one unit.

effect caused by the edge of the area of study. In the north this presents less of a problem. Here the course of the river Avon represents a reasonable political boundary.

Despite the theoretical nature of the framework, there is some correlation between boundaries and rivers. This may suggest that these natural features were used as frontiers between centres of post Roman authority. It is also suggestive that the dominating territory, centred on the high land around Dundry, is produced by the fortified centre of Cadbury Congresbury.

Within this framework, Wansdyke appears as a protection for the zone of interaction between "Cad-Cong" and Camerton. This may well suggest that it was a joint venture which combined the efforts of both major communities. Given the manner in which the earthwork is "anchored" on the two hillforts of Stantonbury and Maes Knoll (and given the proximity of both hillforts to the neighbouring territories) it suggests a conscious effort to provide a joint military input into the maintenance and monitoring of Wansdyke. If this was the case, Maes Knoll would represent a forward base for the "Cad-Cong" territory whilst Stantonbury performed a similar function with regard to Camerton. It is also apparent that Wansdyke linked the high land, south of Bath, to that east of Dundry. As such it cut the Valley of the Chew and the minor streams which flow north to join the Avon. This is particularly instructive if the Chew was indeed the physical boundary between two post Roman territories. As a potential line of penetration (by enemy settlers) from the direction of the Avon, the domination of this sensitive area would have involved strategic planning by both neighbouring territories.

The course of the dyke indicates the abandonment

of the Avon valley and a retreat to a more manageable line, further south. This is particularly interesting given the Chronicle's entry for 577 which indicates that Ceawlin '... genamon threo Ceastra Gleawanceaster, Cirencester and Bathanceaster.' ("captured three cities, Gloucester and Cirencester and Bath".) It is difficult to believe that such a raid could have captured Bath in any sense of occupying it (even assuming that it was in a fit state to occupy). Nevertheless this passage from the Chronicle and the reported death of Farinmail (presumably the ruler at Bath) does suggest that the three named cities were compelled to accept Ceawlin's overlordship. The Chronicle's reference to Farinmail as a "Cyning" (King) need not cause too much concern. It may gloss a post Roman title such as "Magistratus" (Alcock, 1971, p321) and simply imply that a British community, in the vicinity of Bath, lost its independence. Such a blow to the political status quo along the Avon valley must have had repercussions on the planning of, still independent, British communities further south. The line of the Wansdyke would appear to represent a withdrawal of authority from land which could no longer be held.

This raises the matter of the actual function of the dyke. Such a linear earthwork could fulfil a number of roles:

- a) A manned defence line.
- b) An obstacle to raiding and the transfer of livestock and people.
- c) A well marked frontier.
- d) A prestige building project, designed to enhance the authority of a ruler.
- e) A combination of two, or more, of these roles.

It is difficult to accept that Wansdyke fulfilled the function of a manned defence line. Whilst the Ordnance Survey describes it as "cresting the hills south of the valley of the Bristol Avon" (Ordnance survey, 1974) its course is clearly more complex than this description suggests. At times it shows little regard for strategic topography. Between Breach Wood and Middle Wood (SMR 6031) it is overlooked by Rush Hill, to the north east. Where it rises from Compton Dando (SMR 6009) it is once again dominated by high land to the north and its course follows the southern side of the hill. Between Cottles Farm (SMR 6008) and west of Hursley Hill (SMR 6006) it is completely overlooked, again on the north, by the highland of Blackrock and Hursley Hill. The dyke could have been built along this high land - it was not!

In addition to this, the sheer drain on local manpower of such a manned defence line would have been enormous. One need only reflect on the drain on resources, represented by Hadrian's Wall and the burghs of Alfred and Edward the Elder, to appreciate the enormous difficulties involved in manning a defence line the length of Wansdyke. Even given the mutual cooperation of a number of post Roman authorities, it is difficult to imagine how such an enterprise could have been funded. This, in addition to the lack of strategic topography, reduces the defence capacity of the feature.

Nevertheless the earthwork's reliance on the two hillforts is striking. It is highly likely that the course of the dyke was as much affected by a need to link with these forts, as any other factor. West of Compton Dando the builders could have chosen a course further north over higher ground. This they did not do and the decision may be explained by the hypothesis that they were more interested in taking a line towards Maes Knoll than in defensive strategies. East of Compton this same analysis would explain why a route over the higher ground towards Burnett was not adopted. In this case the dominant goal was Stantonbury and longer routes, away from a direct line, were rejected.

This explanation implies that the positions of the two hillforts decided the course of the Wansdyke as much (or more than) any other factor. The vagaries of its course, in other places, being explained by "line of sight surveying" which was not disciplined by a consistent concern for topography (Bett, Baldwin Pers. Comm). If Wansdyke was not continually manned, its function may well have been monitored from these two forts. Distribution maps have identified them as "possible reoccupied hillforts" (Aston and Iles 1987, p72) and this is a reasonable assumption.

The function of a dyke which is monitored, cuts two Roman roads and a significant river valley but displays little defensive function implies a combination of roles (b), (c), and (d). It may also imply a frontier established as a result of crisis management, which was hurriedly constructed and which was soon passed by as political forces and military fortunes fluctuated. Work on the East Wansdyke has led to the suggestion that its course across parishes suggests that these may have predated its construction. (Bonney 1972, Fowler in Wilson (ed) 1976). The West Wansdyke is similarly ignored by the course of parish boundaries. Those of Englishcombe, Newton St Loe, Marksbury, Compton Dando, Publow and Norton Malreward have no correlation with the dyke. The Stantonbury complex of tenth century charters makes no use of the dyke as a boundary, although they cross it on occasions (Costen 1983). The Marksbury Charter does refer to an area of land called "Wondesdych Shot" (BCS 709). The use of Old English "Sceat" ("corner", "detached

piece of land") implies that the dyke could not be ignored but it was not used as the boundary. The same charter states that the "sceat" consisted of "four acres by northan dych" (four acres north of the dyke). The reconstructed boundary of the eleventh century royal estate at Keynsham (Whittock 1988) again indicates that Wansdyke was not used as a boundary feature.

This evidence is comparable to the East Wansdyke research. In addition to suggesting that these boundaries may predate Wansdyke, the evidence may also suggest that the life of the dyke was so short lived that it never fundamentally altered the rural pattern of land tenure south of the Avon. This, once again, suggests a British enterprise which was rapidly made redundant by Anglo Saxon expansion. At Dog Kennel Wood (688639 O/S) surface finds of Roman and sub Roman pottery suggests a community immediately north of the dyke. Detailed local research is needed in order to ascertain the effect of the construction of the dyke on this farmstead(?) or village(?).

In conclusion, the evidence discussed (above) suggests that West Wansdyke fulfilled a boundary function, with only a quasi Military role, related to the two hillforts included in (or deciding) its course. (*This dominant role as a boundary may indicate that the suggestive "Woden/Grim" evidence is not totally redundant.*) While the most likely scenario for its construction is the political readjustment following the battle of Dyrham (577), the lack of clear dating evidence for the building highlights the difficulty of relating such features to historical data and literary sources. A more fruitful line of enquiry is that of setting the dyke within a post Roman cultural context attested by archaeological find spots (themselves often far from securely fixed within a rigid dating framework.) In this broader context the dyke appears to relate proposed territories and zones of interaction outlined above. It should also be seen in the context of hillforts occupied during the Roman period (Arnold 1984, p76) especially if the longevity of the material extends into the sub Roman era (Burrows 1979). This is especially relevant since "Cad-Cong" and Maes Knoll are included in this distribution, as well as other local sites.

On the theme of broader issues, raised by material distribution, the line of Wansdyke occupied a notable position at the northern end of the south western distribution range of post Roman imported pottery "D" and "E Ware". (Arnold 1984, p115). Such a siting suggests, at least an economic, if not a cultural boundary point. This may be contrasted with the distribution of pagan Saxon cemetery evidence (mapped by Arnold 1984, p114; 1988, p165 and discussed in detail by Myres 1977). Not until aspects of the final phase of use of the cemetery at Camerton (Horne 1933, p40, 62) and the 7th century burials at Buckland Dinham and Evercreech do we find definite evidence for Anglo Saxon cultural intrusion. (The inhumation cemetery at Avon Farm, Saltford and the burials at Burnett should also be considered here.) Until this period Wansdyke occupied a position on the north eastern edge of a cultural zone which was economically part of a south western and Mediterranean trading complex. Pewter manufacture at Camerton may be interpreted as a native, British, element within this economic network (Thomas 1982, p26-7). The location of a seemingly continuous pattern of occupation, from the Roman to the post Roman period at "Cad-Cong" (including finds of imported "D" ware) indicates the existence of a high status community whose relationship to the Wansdyke has already been suggested, in terms of territorial interaction. To the east of Wansdyke the Anglo Saxon cultural zone was part of a trade network focused on the north sea

and Baltic, with a south eastern shift towards Frankish territory from the middle of the 6th century (Evison, 1984 p5, p64). Even given different estimates of the size and density of Seal Wudu (Selwood) in recent studies (Stenton 1971), in comparison to earlier assumptions (Ordnance Survey 1935), Wansdyke clearly dominated one of the few land access points between the British and Anglo Saxon cultural zones in the late 6th/early 7th centuries. Nevertheless it should not be assumed that the dyke represented a sealed frontier which allowed no social intercourse. Germanic artefacts occur as scrap, associated with metalworking, at "Cad-Cong" (Arnold 1984 p118). The "pre Saxon indigenous hand made pottery", found at Pagans Hill and "Cad-Cong", is reminiscent of hand made pottery associated with Anglo Saxon sites further to the east (Evison, Hodges, Hurst, 1984, p98-99). As with the

identified pagan Anglo Saxon pottery, at Camerton and Evercreech, this may be as indicative of trade as of immigration. In time such a process of infusion accelerated and made redundant all controlling, or monitoring, functions of the dyke.

Areas of Possible Future Study:

- 1) Fieldwork designed to test the hypothesis of post Roman occupation at Maes Knoll and Stantonbury.
- 2) Field walking, on both sides of Wansdyke, to check incidence of late - post Roman rural occupation and disruption caused by the dyke's construction.
- 3) Reconsideration of common cultural features exhibited on post Roman sites south of Wansdyke and isolation of those features which show signs of intrusion from another culture zone.

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WEST WANSDYKE: RECENT ARCHAEOLOGICAL RESEARCH AND FUTURE PROSPECTS

Rob Iles

It is now 30 years since Sir Cyril and Lady Aileen Fox published their classic survey of both the East and the West Wansdyke (Fox 1958). The purpose of this article is to provide a brief review of some of the work done on the West Wansdyke since then and to examine some possibilities for further research and conservation.

In the 18th and 19th centuries the Wansdyke attracted a fair amount of antiquarian attention. This early work did little to advance our knowledge but it was useful in describing sections subsequently destroyed. The antiquarian effort culminated in a rather quaint book in 1926 by Major and Burrow and whose chief contribution lay in the title of their book - *The Mystery of Wansdyke*. Anyone interested in following the course of the Wansdyke is recommended to look first at the Fox's article or the BARG Field Guide to *Earlier Medieval Sites ...* by Elizabeth Fowler et al (1980).

My own interest in the West Wansdyke began in the late 1970's as a result of the need to encourage its conservation. The Foxs had recommended certain sections for scheduling as ancient monuments in the 1950's and the Department of the Environment agreed to several more sections for scheduling around 1980. Sadly despite this 'protection' many parts of the Dyke continued to be ploughed. It is difficult to completely destroy a linear earthwork by ploughing. The ditch simply fills up and is thereby preserved; whereas the mass of material from the bank gets spread outwards but loses most of its stratigraphy. Visually it becomes much less impressive and so is easily forgotten and overlooked.

THE WANSDYKE PROJECT

This project was borne out of the need to resurrect the Wansdyke from its recent neglect. With the exception of Peter Fowler's work in the late 1960's comparatively little concerted effort had been done so far as research was concerned (but see next section). Even less had been done to conserve and interpret it. The Wansdyke Project had three main elements:

1. A detailed survey of the length of the Dyke.
2. Assemble recent historical information about its route.
3. Publicise the Dyke locally.

The Project was undertaken in 1986-87 as part of the County Council's MSC-funded scheme called ACCES. The Project was fortunate in being able to recruit a professional surveyor, Bette Baldwin, as supervisor. This meant that the survey, which was the main part of the Project, was done to a very high standard. Bette's enthusiasm for the Project ensured that the promotion of the Dyke locally was also pursued with flair and energy.

The survey was carried out by a series of levels and profiles across the dyke at intervals of at least every 50 metres and tied to Ordnance Datum. A written record of individual sections was compiled at the same time. The section drawings were compiled for the Project archive in a manner that would allow it to be easily copied for deposit in local and national institutions. Unfortunately the compilation of this part of the archive was only completed in mid 1988 but hopefully copies will eventually be put into local museums and the National Monuments Record. At the same time as the survey was proceeding some aerial photography was carried out by Avon County Planning Department primarily for management purposes.

The historical data collected for the Project forms the second part of the archive. The most important items obtained were linear copies of the relevant sections of the tithe maps with land use depicted, copies of the First Edition (1885) Ordnance Survey 1:2500 plans and the former Ordnance Survey Archaeology Division's linear record of the monument. The entire Project archive is held with Avon Sites and Monuments Record in Avon County Planning Department.

The publicity work had two main strands. The more important arose from carrying out the survey itself, which gave the team the opportunity to talk to landowners and farmers about the Wansdyke. Sadly this is something which many archaeologists neglect but was a vital part of all ACCES archaeology projects. The other element of publicity work was aimed at local people and particularly schools. It consisted of a touring exhibition about the Wansdyke, the survey and featuring the new cartoon character of Willie Wansdyke! The team also supplied the historical background for a new opera, *Wodens Dyke*, by Jolyan Laycock, then musical director of the Arnolfini, and performed by south Avon schools.

EXCAVATIONS OF THE WANSDYKE

There has been very little excavation of the Wansdyke. A couple of sections done in the early part of the century are reported in the *Proceedings of the Somerset Archaeological and Natural History Society for 1904* (Bath Branch) and 1914. In 1963 Charles Browne (1987) recorded a section of Wansdyke ditch during road widening at Hursley Hill. It was 5.4m wide, 1.8m deep and V-shaped with no evidence of a collapsed revetment.

In the late 1960's Peter Fowler (1968 and 1970) recorded several sections as a result of damage from pipelines and building work at Stanton Prior (where only the ditch survived), Englishcombe (Middle Field) and Odd Down, Bath. He published section drawings of the ditch at Stanton Prior and bank at Odd Down. This recording confirmed the ditch was V-shaped, 5.5-6m wide and

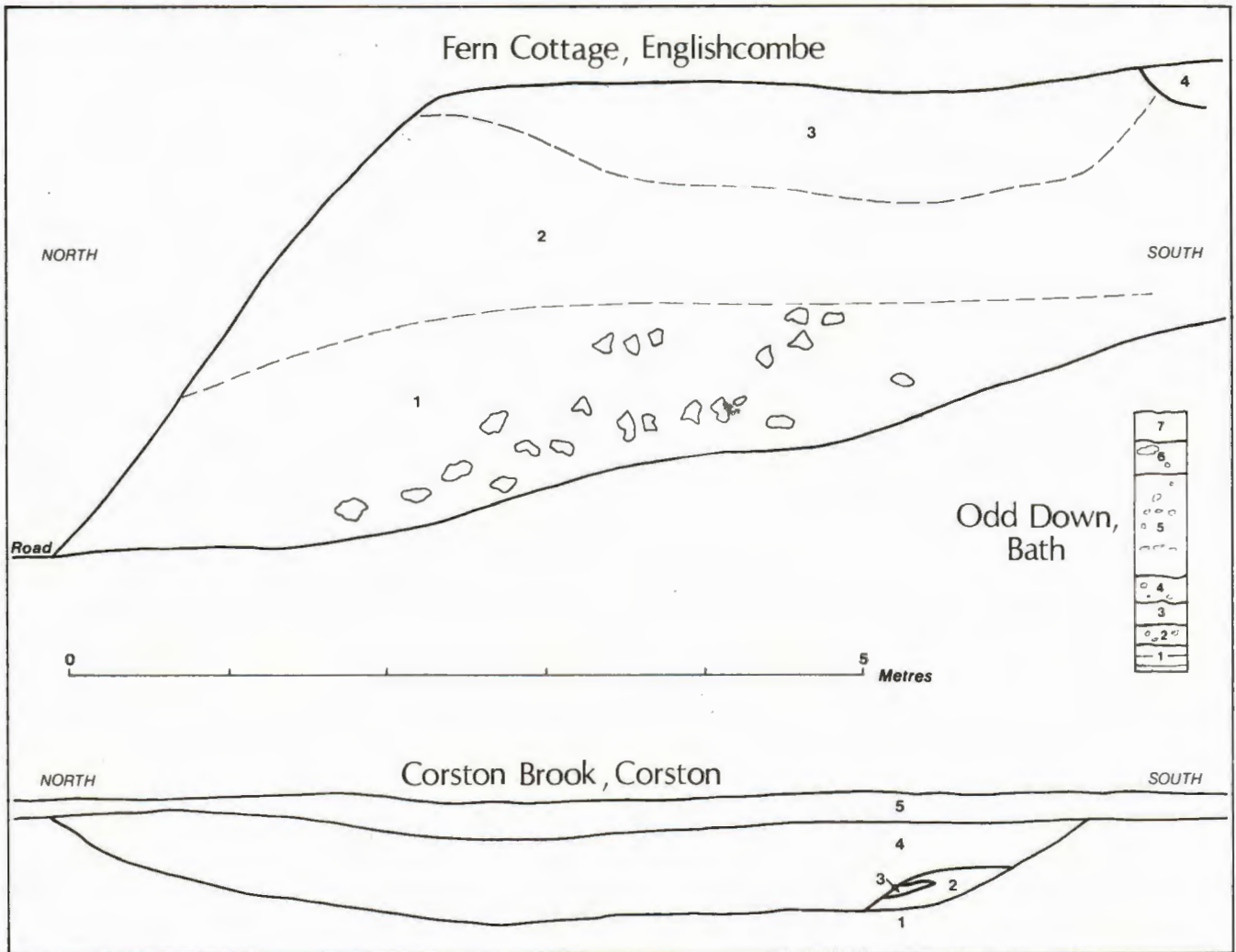


Fig. 1. Wansdyke and other sections.

Key to layer numbers: ENGLISHCOMBE: 1, whitish-yellow clay with large blocks of oolite; 2, whitish-yellow clay packed with small pieces of oolite; 3, black humus with small stones; 4, disturbed. ODD DOWN: 1, oolite; 2, brown clay/loam with small pieces of oolite; 3, dark brown clay/loam(?old ground surface); 4, light brown loam with small medium pieces of oolite; 5, small-medium pieces of oolite with bands of larger stone; 6, brown loam with small-large pieces of oolite; 7, dark brown earth. CORSTON: 1, orange clay; 2, soft dark earth with lumps of charcoal; 3, orange-brown clay; 4, light brown clay/loam with (on south side) large amount of stone some burnt; 5, brown topsoil.

1.2-2.1m deep (although the section drawing showed it smaller). The bank at Englishcombe was 0.9m high and composed of clay. At Odd Down the bank had a central core of oolitic flags and rubble 0.9 high and 1.5m wide beneath a clay bank up to 1.5m high above and at least 9m wide. He thought that this section showed this part of the Dyke had several phases of construction and that there was a narrow berm between bank and ditch.

In the last decade opportunities for salvage recording of Wansdyke sections have been limited, deliberately so. Water and gas companies in planning new routes for pipelines have agreed to avoid known sections, often incurring considerable extra costs. Two recent pipelines were routed to go close to stream crossings. In 1985 a pipeline crossed the line of the Dyke at Bathford brook (ST65496431) and

no trace of any feature was visible. Two years earlier a pipe trench revealed a ditch (Fig 1) immediately east of Corston brook (ST68816363); although on the correct alignment this ditch was flat-bottomed and charcoal from near the bottom of the ditch was radiocarbon dated to AD 1670 +80 (HAR-5967).

The building of a garage at Odd Down, Bath (727 Wellsway, ST73496176) in 1987 involved cutting a slight longitudinal section on the north side of the Dyke bank. The bank (Fig 1) proved to be composed of rubbly oolite above a buried soil. A possible bank section was recorded in Englishcombe village (ST71816281) in 1982. This is on the suggested line of a rediscovered(?) part of the Dyke discussed below. This section, cut for a driveway just west of Fern Cottage, was far from being clear (Fig 1).

OTHER RECENT RESEARCH

Professor Tratman (1963) in his survey of Maes Knoll hillfort disagreed with the Fox's interpretation of the western end of the Wansdyke and its relationship with the hillfort. He believed that the Dyke started at the Tump and cut across the north east corner of the Iron Age enclosure. The Fox's thought that the Dyke stopped short of both Maes Knoll and Stantonbury hillforts.

Ian Burrow (1981) resurveyed the junctions of the Wansdyke and these two hillforts as part of his research into Somerset hillforts of the 1st millennium AD. While not agreeing with the Fox's interpretation he reached a slightly different conclusion to Tratman about Maes Knoll. Similarly on Stantonbury he thought that the Dyke was brought right up to the hillfort which was possibly renovated at the same time on its north side only. I would tend to agree that the builders of Wansdyke probably did continue it along the northern sides of both hillforts but it is a question which ultimately will have to be resolved by excavation.

Ian Burrow's research grew out of the excavation projects at South Cadbury and Cadbury Congresbury, where evidence was found for the reoccupation of those hillforts in the post-Roman centuries. Were Maes Knoll and Stantonbury also reoccupied? Again only excavation can provide answers. A very important result from this new research into Dark Age Somerset (and further afield) has been a reassessment of traditional concepts; for instance, breaking out of the strait jacket of trying to fit the archaeological evidence into a chronological framework based on a very flimsy historical record. Both Ian Burrow (1981) and Philip Rahtz (1982 and 1987) have attempted a new theoretical approach based upon models and comparison with the collapse of other civilizations.

One particular model, based upon the idea of continuity of territories of Iron Age hillforts/Roman villas/reoccupied hillforts/royal Anglo-Saxon estates/medieval manors, may be of value in studying the land units adjoining or close to the Wansdyke. Attempts at reconstructing this model have been made for several areas of south Avon to varying degrees: the Vale of Wrington (Fowler 1975); Cadbury Congresbury and adjacent parishes (Burrow 1981); and adjoining the Wansdyke, the upper Chew valley

(Kemp 1984) and the late Saxon royal estate centred on Keynsham (Whitlock 1987). All these researchers have pinpointed subjects and periods where there are gaps in our knowledge and have suggested further lines of research.

Attention to Wansdyke's place in the landscape history of the area has also come from examining its relationship to estate/parish boundaries. These boundaries ignore Wansdyke except at its east end and so it has been assumed that they must pre-date the building of the Dyke. Perhaps they were so well established at the time of its construction and its use so short-lived that even such a massive linear feature could be ignored. In this context Mike Costen's (1983) reappraisal of the 10th century Charters for the four Saxon estates around Stantonbury Hill is particularly valuable. He suggests that these estates represent part of the land which belonged to the hillfort and were subdivided during or just after the Roman period.

Undoubtedly the construction of the Wansdyke was a major undertaking. How many people were needed and how long did it take? Bette Baldwin (1987) calculated the amount of earth moved using the survey results from the better-preserved sections. As it stands now some 800-900 cubic m of material would have to be cut for each 100m stretch of Dyke; the original figure would have been somewhat higher because of silting and weathering since. Such a massive scheme required not only good organisation but also a lot of manpower. Archaeological evidence and Domesday Book shows the area of the Avon and Chew valleys was very productive and densely populated in the Roman period and in the 11th century. Similar evidence has been noted for the environs of the reoccupied hillforts of South Cadbury and Cadbury Congresbury (Burrow 1981).

THE GAPS IN THE WANSDYKE

The Foxs rightly drew due attention to the sections along the route where there was no evidence for the Dyke. A major element of any future research must be the examination of these gaps. However any such research, especially excavation, must start with a reasonable knowledge of the area's land use history and that there are two different types of gap. A recent 'research strategy' to find these gaps failed to understand those two factors.

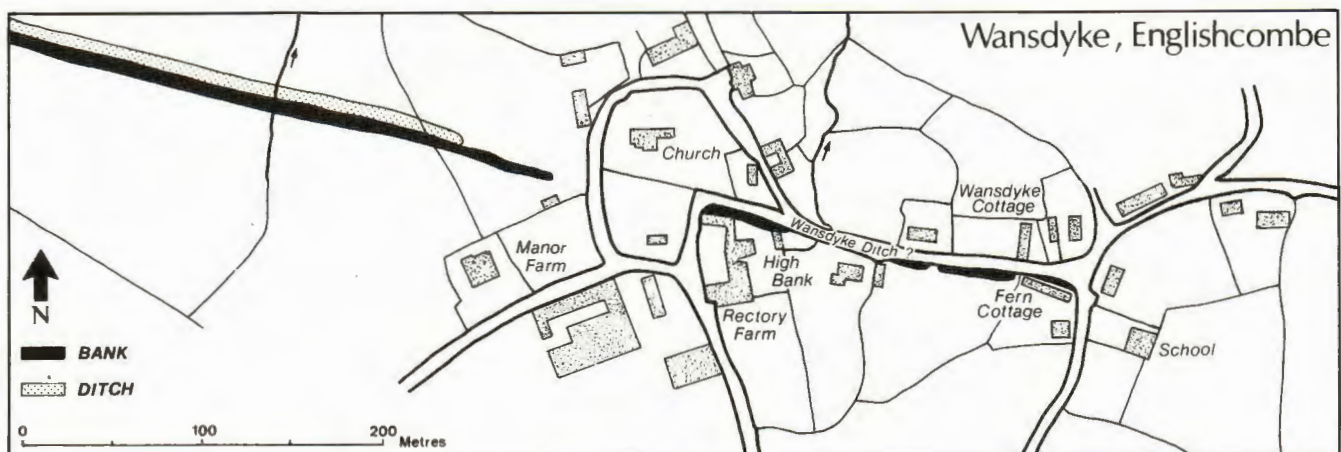


Fig. 2. Possible course of Wansdyke through Englishcombe

The first type of gap is where the bank has been virtually levelled by ploughing and the ditch infilled. Even when this happened a century or more ago there are often good records (eg early OS maps and antiquarians' notes) of its line and it may be visible on air photos. Secondly there are two or three long gaps for which there is no known record and where it may never have existed.

The main gaps where there is no record of the Dyke are over Publow Hill and east of Englishcombe village. The Foxs (and subsequent writers) thought these gaps were deliberately left by the builders of the Dyke because these areas are likely to have been heavily wooded as they are on heavy lias clays. But there are other clear sections of the Wansdyke constructed on similar soils. It may also be that the Dyke was never completed. However it does seem to be a reasonable possibility that there was some regeneration of woodland in the post-Roman centuries, although previous estimates of this are probably exaggerated.

Research into these two gaps should first be directed towards elucidating the landscape history of both areas. For instance Publow Hill appears to have had the remains of medieval strip fields, the layout of which are still visible on the 1839 tithe map and then still in use as arable. If this area has been cultivated for hundreds of years is there much hope of finding anything other than a buried ditch? More work is currently being done on this area's landscape history for a parish survey.

Aerial reconnaissance just east of Publow Hill in 1987 did reveal a possible ploughed out bank and ditch as a soil mark at ST638649(SMR AP ref ST6364/1,2). However on analogy with other sections, if it did exist here, it might be expected that its course was further north possibly near the east-west road overlooking Wooscombe Bottom. Although the course of the Dyke is not always well placed it is not normally overlooked by higher ground at such close range as it would be in the case of this soil mark.

A rapid survey of the parish of Englishcombe (Stacey and Iles 1983) provided some clues as to the good preservation of the Dyke to the west of the village even if it did not explain its disappearance east of the village. There was a hunting park to the west of the village in the medieval period. The area to the east of the village as far as Breach Wood is likely to have been part of one of the two open fields and so was used as arable. However all the field names here are prefixed Breach- just like the adjacent wood. The name breach is usually thought to be an area of wood cleared in the medieval period and possibly represents new land associated with outfield exploitation (Aston 1988, 97). East of Breach Wood Wansdyke is once again very clear adjacent to the earthworks of a deserted medieval settlement.

There is no record of the course of the Dyke through Englishcombe village. It seems a reasonable possibility that it followed the main street east of the church (Fig 2). This street is in fact a hollow-way and so it could be Wansdyke ditch; fieldwork and tithe maps show that several sections of the ditch have been used as trackways. On the south side of Englishcombe street there are traces of a bank and a section through it is described above.

Another gap in the course of Wansdyke deserving of some attention is in Newton St Loe parish between Park Farm and Pennsylvania Farm. The western part of this section has been traced as a slight scarp and on air photos (Fox 1958). The eastern part is marked as a broken line on OS maps but its course is not immediately obvious on the ground. Ideally this area should be looked at in some detail and its landscape history researched. Another line of research which may be of value in tracing lost sections

of the Wansdyke is the various forms of geophysical prospecting now available. Certainly all of these methods should be tried before random excavation trenches are contemplated.

FUTURE ARCHAEOLOGICAL RESEARCH

In the preceding sections I have suggested a number of possible research topics and made reference to other research papers which have outlined other possibilities. I would also propose that future work should be broadly-based not only geographically but conceptually as well. By and large most of the suggestions have not involved excavation, which should be a last resort. However there are certain questions, such as those outlined below, which ultimately will have to be tested by excavation:

1. *Date of Wansdyke*

This is the most fundamental issue because if sufficiently closely datable material is recovered it may be possible to propose a context/s for its construction. The chances of obtaining good stratified and datable artefacts or scientifically testable samples are remote but it is not unrealistic to look for them as part of an overall research design which would embrace the following questions and others as well.

2. *Construction of the Wansdyke*

The 'what did it look like' and 'how was it built' are the sorts of questions excavation is most likely to provide answers for and these are things about which there is very little information at the moment. It would also be useful if there is any evidence for more than one phase of construction as suggested for a section recorded at Odd Down. Ideally cross-sections and longitudinal sections should be excavated at several different places along its route.

3. *Relationships with other archaeological features*

The most significant relationships to be sorted out by excavations are the junctions with the hillforts on Maes Knoll and Stantonbury Hill. In the long term the interior of the hillforts ought to be examined for evidence of re-occupation; however this would require large-scale excavations and could not be contemplated until the excavations at Cadbury Congresbury and South Cadbury are published. It may also be justifiable to examine the relationship with other features such as the small 'fields' south of Newton Park. Peter Fowler considered they were earlier but ploughing has since blurred the junction at ground level.

4. *Wansdyke Gaps*

It may be justifiable to test by excavation postulated sections of the Wansdyke (but see above). It would be interesting to know if the rounded terminals of the Dyke, where it stops short of streams, were treated in any special way.

5. *Environment of the Wansdyke*

Any excavation project should include a programme to take samples for palaeo-environmental analysis. Buried soils have already been recognised beneath the bank in sections. The lower parts of the ditch may also hold environmental data.

It is inevitable that an excavation programme will have to examine sections of the Dyke which are scheduled. Indeed it will be necessary to excavate some of the best preserved sections to have any hope of obtaining worthwhile information. However these excavation proposals,

most of which are of a limited nature, are justifiable not simply as part of archaeological research into the post-Roman centuries but just as importantly for the interpretation of the Wansdyke to non-archaeologists.

CONSERVATION

If there is to be scope for research along the length of the Dyke in future years it is essential that the degradation of recent decades is halted. There have been certain landowners, like the Duchy of Cornwall, who have readily agreed to build into their land management practices the conservation of the Dyke. The Wansdyke Project, described above, has helped to create some understanding and goodwill amongst other landowners. However that interest needs to be fostered for the long term before it is dissipated.

Proposals for the management and (equally important) interpretation of the Wansdyke have already been put forward elsewhere (Iles 1988). A small start has been made with the preparation of a popular publication for the District Council named after the Wansdyke (Iles & Whittock forthcoming). It still remains to be seen whether much of this mysterious feature, a silent monument to a rather shadowy period in our past, survives into the next century.

ACKNOWLEDGEMENTS

The Wansdyke Project grew out of discussions verging on mutual despair about the Dyke's future with Sian Williams, Ancient Monuments Field Warden for the area. The Project itself was supervised first by Bette Baldwin and later by Chris Whitfield. Members of the project team were Roger Ball, John Henthorne; Anthony Keele, Adrian Noble and John Williams.

Grateful acknowledgement is made to all those people who assisted the Project team with their work particularly Roger Leach, who supplied copies of the Ordnance Survey linear records of the Dyke, and other RCHM surveyors. I would like to thank Margaret Worthington for information about the Offa's Dyke survey and the RCHM for a grant for aerial photography.

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DEER PARKS AT SUTTON AND WEST CHELWOOD

R.G.J. Williams

The prominence of deer parks in the medieval landscape was discussed by Rob Iles (1987, pp.117-121) who thought that there were probably over forty of these manorial features in Avon. He had been able to identify many of these (Iles, 1978) but thought that there was scope for further research. When examining four deer parks in the north of the county Iles and Lay (1979) demonstrated that the boundaries could often still be seen in the landscape as sizable banks occasionally surmounted by a wall and often with an internal ditch. The present writer has been able to trace the boundaries of two more deer parks in south Avon where rights of 'lugfall' were significant.

SUTTON PARK (ST 6060)

This park of over 200 acres in the parish of Stowey Sutton is on high ground overlooking Sutton Court and the Chew Valley. It is dominated by Round Hill (145m) and the escarpment of South Hill (189m) with several intervening steep-sided valleys. (see Fig. 1). It belonged to the manor of Knighton Sutton and although there would not appear to be any medieval references to a deer park the Strachey papers in the Somerset Record Office (DD/SH,c/1165) provide evidence of disemparment by the early 17th century. A lease dated 1632 (DD/SH, 14) is of Sutton Court and 'Sutton Parke of about 200 acres of late divided into divers p(a)rceles with all the lyberties, priviledges and profitts of Parke and Free Warren'. In a letter written by John Strachey in 1742 concerning a local boundary dispute he cites the same lease of 1632 as an authority for rights of 'lugfall' on the boundary of Sutton Park, as follows:-

It was always the practice when any person enclosed a park to set the Pale or Wall 18 feet, which is a Woodland Lugg, within the outside of their land; because they would not trespass on another Lord's land; but leave room to come with carts, timber etc to repair the Bounds of their Park. This was called Lugfall; and there was such a one at Sutton Park is plain from a lease. (Strachey then identifies the lease of 1632 which does not specifically mention lugfall but provides rights of access to maintain the park pale).

These rights figure prominently in another boundary dispute of 1787 when depositions from local people confirm lugfall at Sutton Park giving measurements of 16, 18 and 20 feet and another more precisely as 16½ feet, one inch and a barleycorn. Another deponent speaks of lugfall called Mr Strachey's Deer Leap belonging to the Liberty of Round Hill and of sawyers measuring out the distance of 20 feet with a long rod. Lugfall at other parks in the area are recorded in the depositions as Chelworth Park - 16½ feet; Chew Park - 18 feet and at Compton Martin - 18 feet. The bounds of the latter park are shown on Ordnance Survey plans as narrow strips of woodland which are named as Lugfall.

In the Strachey papers there are a number of 19th century references to the sale of 'lugs of timber' which could just mean branches of trees but perhaps of a certain length; a lug usually being 16½ feet otherwise a rod, pole or perch. It could also be a measurement of area that is a square lug as suggested by Rackham (1988) but this would only apply to the sale of standing timber. Lugfall seems to be a local word and in a Somerset law case (Scott, 1863) it was claimed as a right to enter onto a part or strip of land.

A part of what is now called Folly Wood was named as Lodge Wood on an estate map of 1793 (DD/SH.c/1165) suggesting that there had previously been a hunting lodge in this area. Almost the complete boundary of the former park is defined as lugfall on an estate map of 1832 (DD/SH.c/1165) and there are still lengths of strip woodland surviving. The park pale can also still be seen in many places as a sizable bank which is sometimes surmounted by a wall and the internal ditch can be traced almost all round the perimeter.

Just outside the park and in the neighbouring parish of Stanton Drew is a series of long banks of narrow strip fields and in his letter of 1742 John Strachey remarked that this area was formerly open field which had only been enclosed circa 1700. On the western slopes of Round Hill at ST 604608 remnants of similar strip fields can be seen suggesting that the park, or at least this part, had been utilised for open field cultivation in the (early?) medieval period. This suggests a later date for the foundation of the deer park.

WEST CHELWOOD PARK (ST 6261)

This park of about 300 acres belonged to the manor of West Chelwood and lies on land to the south west of Chelwood House rising to 180 metres above sea level at Red Hill. (Fig.1). The two manors in Chelwood called Chelworde and Cellewert in the Domesday Book of 1086 were later known as East and West Chelworth otherwise Chelwood. In 1285 when John Tregoz held both manors he was granted rights of Free Warren by Edward I (Cal. Pat. Rolls) but this was originally only an authority to hunt small game such as rabbits, hares and foxes. There is no record of a Royal Grant to enclose a deer park at Chelwood but as pointed out by Iles (1978, p.118) only a handful of the many deer parks in Avon appear to have been granted such rights. Iles was of the opinion that manorial Lords probably thought that they could make a new park if they had already obtained rights of Free Warren. There is evidence of a warren, park and other manorial features near Huntstrete House belonging to the Lords of East Chelwood. (ASMR. 3988, 4288 and 5856).

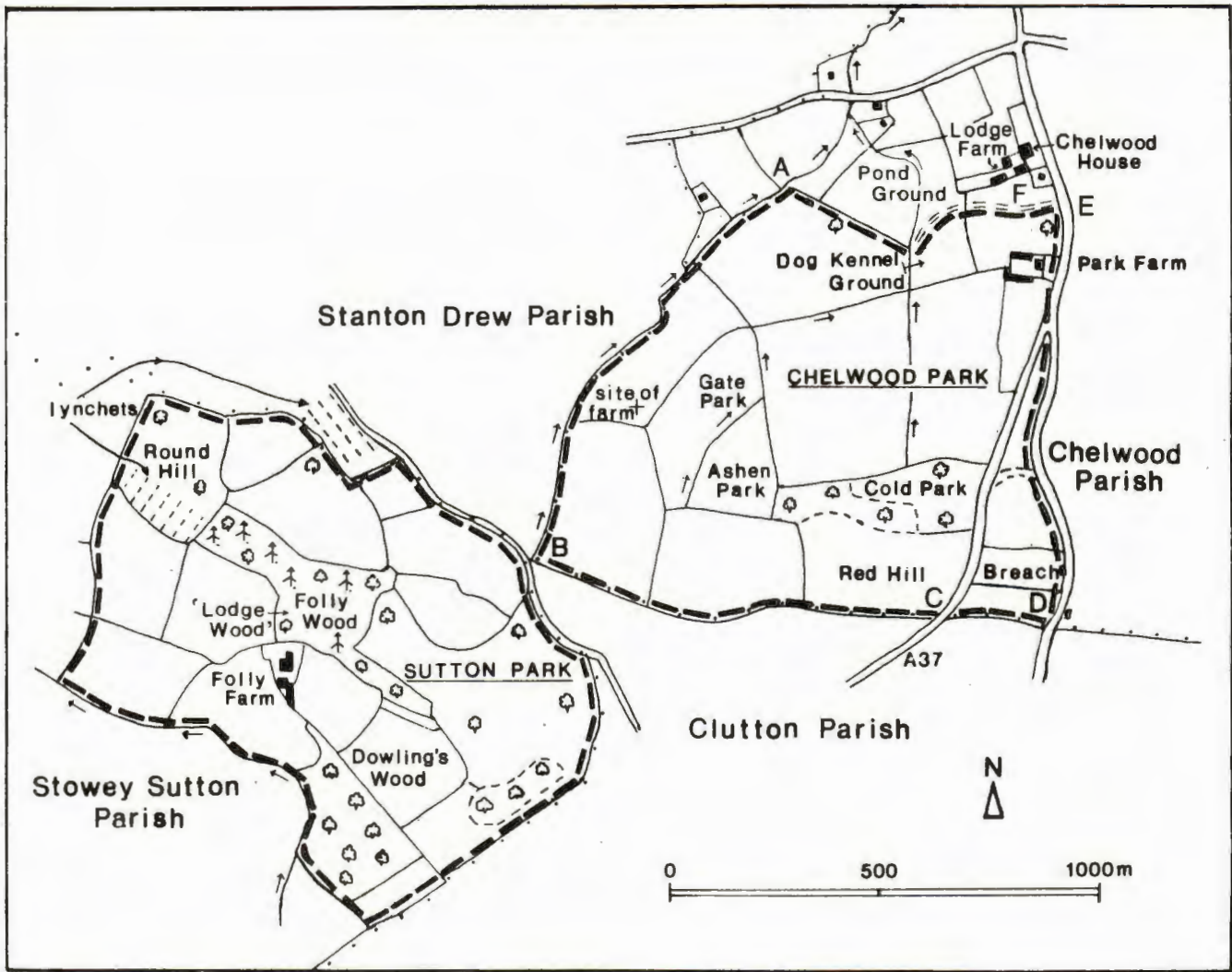


Fig.1 Sutton and West Chelwood Deer Parks

The Priors of Bath held the manor of West Chelwood in the later medieval period and were still collecting rents there in 1501 (SRO.DD/X/HY.1). Within a few years the manor was held by the Popham family and a lease of 1632 (DD/PO,9) claimed that rights of hunting, fishing and forestry formerly enjoyed by the Priors of Bath had been passed onto succeeding Lords. Another lease in the same collection dated 1658 of a tenement called Breach, which lies on the southern edge of Chelwood, gave authority to enclose land annexed from Chelworth Park. Aston (1988, p. 97) suggests that 'breach' names perhaps represent new land associated with 'outfield' exploitation when more arable land was required in the 13/14th centuries. This suggests that a farming settlement founded at Breach in the later medieval period had been extended when the adjoining park started to be broken up. Further encroachment is documented up to 1681 when the demense lands including the park had been reduced to 140 acres. The disemparkment was complete by 1708 when a lease of Chelwood Park Farm (DD/SOG,219) included 248 acres of enclosed land in this area. The farm buildings, on high ground known locally as Snook's Hill, is shown on a manor map of 1776 (DD/PO,70) and on the Tythe map of 1837

(D/D/Rt, 11). (see Fig.2). It was shown as in ruins on the OS map (1886) by which time it had been superseded by Park Farm in a more accessible situation on the main road. The old farm site at ST 615610, surviving as wall foundations, earthworks and a well has been surveyed by measurement (Fig.3).

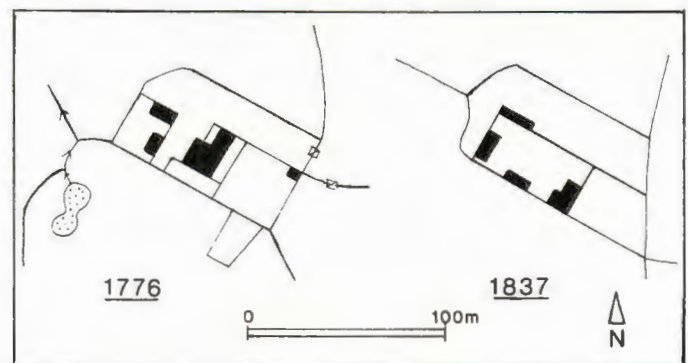


Fig.2 Chelwood Park Farm on Estate Maps

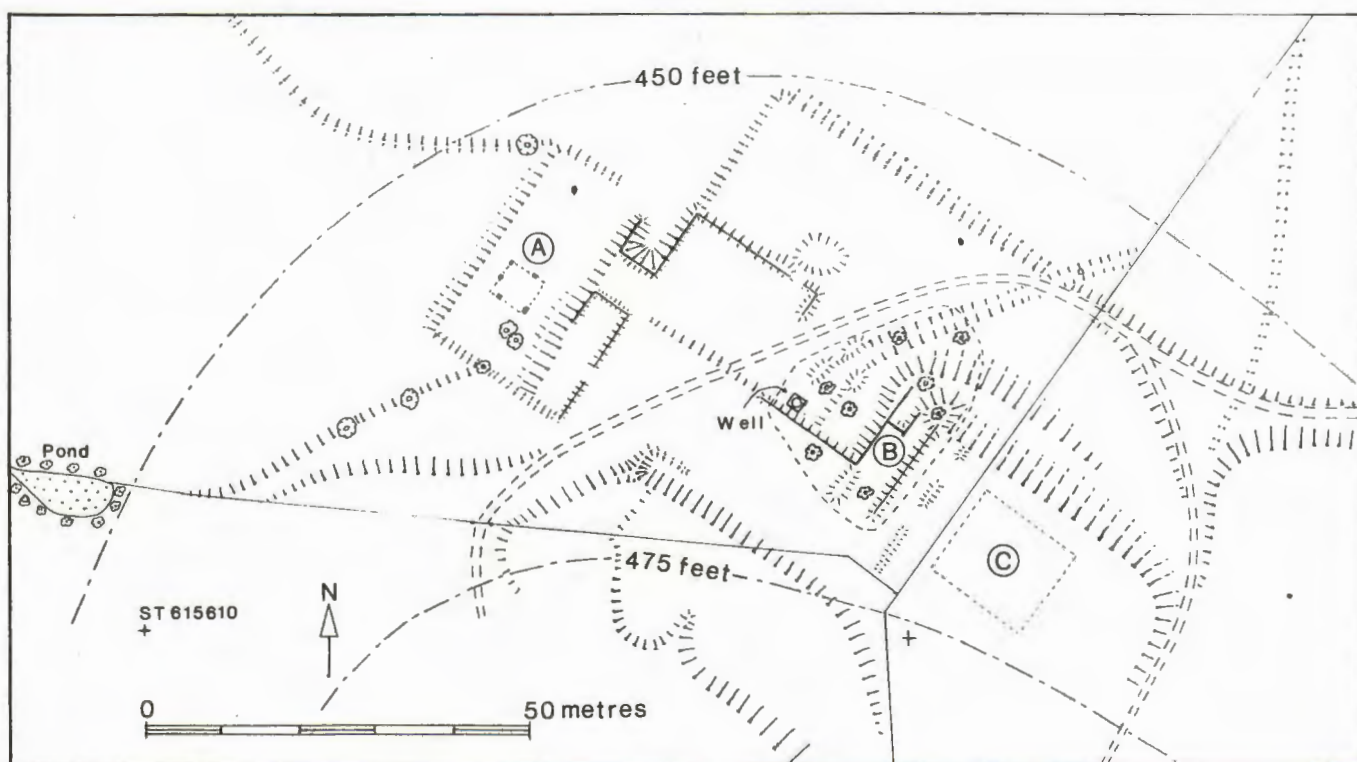


Fig. 3 Chelwood Park Farm : A) Straddle Stones
B) Site of farmhouse in undergrowth
C) Modern concrete base

The park pale between points 'A' and 'B' on Fig. 1 is marked as 'lugfall' on the Tythe map (1837) and survives as a narrow strip of woodland at the side of Salters Brook. A similar woodland feature is shown on the Manor map (1776) to continue to point 'C' at Red Hill and although only a few trees remain the boundary is marked by a substantial bank with an internal ditch. The A/37 road up Red Hill, which was straightened in recent times, was probably not a thoroughfare until this route was chosen by the Bristol Turnpike Trust in about 1726. The bank and ditch marking the park pale continues on the far side of the A/37 to point 'D' on the lower road at Breach. It is likely that the park boundary followed the old main road to point 'E' near Park Farm but modern road improvements have destroyed any evidence of this feature. There is a well preserved stretch of a ditch, which in some places is over 3 metres deep and with the usual outer bank, from the main road to a stream in the valley. On the north side at ST 62466155 is an area of earthworks ('F' in Fig. 1) which have been sketch surveyed (Fig. 4). This could well be the remnants of the medieval settlement around the manor house now represented by Chelwood House built in 1681. The park boundary could have followed the stream to the confluence with Salters Brook but there is a field boundary, comprising a hedge on top of a bank with an internal ditch, taking a direct route to complete the circuit at point 'A'.

Within this area are several 'Park' field names and another indicating the site of Dog Kennels. Just outside the park is Pond Ground where the stream has been dammed in several places possibly to create fishponds and the Pound site near Lodge Farm completes the picture of a range of manorial features.

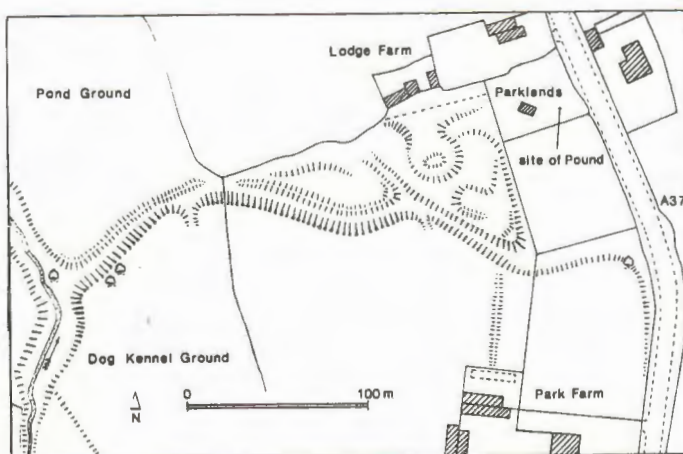


Fig. 4 Earthworks north of Park Farm, Chelwood

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THE NORTH ALMSHOUSE AT WESTBURY-ON-TRYM, BRISTOL EXCAVATIONS 1975 - 1978

James Russell

1. INTRODUCTION AND ACKNOWLEDGEMENTS

This report describes small-scale excavations undertaken between 1975 and 1978 on the site of a 15th century almshouse located immediately to the north of the former collegiate church (now the Parish Church of Holy Trinity) at Westbury-on-Trym, Bristol. The excavations were carried out under the supervision of the present writer by members of the Westbury-on-Trym Local History Group, including Miss I. Alway, Mr G.H. Beauchamp, Mr P. Clifford, Mr & Mrs A.R. Cook, Dr J.D. Egdell, Mr P. Harper, Miss E. Howe, Mr & Mrs M.H.A. Kempster and Miss D.M. Wardley. The writer is grateful to all these individuals for their assistance and in particular to the then Chairman of the Group, Dr Egdell, for his enthusiastic support and help with photography. Thanks are also due to the Vicar and Parochial Church Council of Westbury-on-Trym for permission to excavate and to Mr M.W. Ponsford and Mr R.G. Jackson for their valuable comments on the finds.

2. HISTORICAL BACKGROUND

The structure with which this report is concerned had its origins in a substantial programme of building and endowment carried out in the mid 15th century by Bishop John Carpenter of Worcester with the aim of turning the collegiate church of Westbury-on-Trym into a second cathedral serving the southern end of his sprawling diocese. During Carpenter's episcopate (1444-1476) the church received a polygonal east end (with burial crypt for the bishop beneath) and a new west tower, while the adjacent college of priests was re-endowed, enlarged and completely rebuilt on a quadrangular plan, making it comparable in size and appearance with one of the smaller Oxford or Cambridge colleges (Ponsford 1981). During the same period a small but finely constructed house, now No. 38 Church Road, was erected immediately outside the west gate of the churchyard, probably in order to accommodate a chantry priest; in addition to much of its original fenestration (exposed and partly restored in 1984) and roof structure this building retains on its front door a wrought iron version of Carpenter's armorial device, the crossed crosslet (Wilkins 1909, 31).

In a charter dated 12 October 1466 Carpenter refers to his recent foundation at Westbury of an almshouse for six poor men, situated opposite the gateway of the College on a plot of land formerly owned by William Codder of Bristol. The almshouse was adjoined by a walled garden intended for the use of the almsmen (Wilkins 1917, 154). A similar institution for six widows seems to have been established soon afterwards. Documents in the Great Red Book of Bristol, datable to 1470-71, indicate that the Mayor of Bristol and his wife were given the right to nominate an almsman and woman respectively (Veale

1933, 70-74). In these documents the men's "Almshouse" is again described as opposite the college gateway, while the women's dwelling is stated to be next to the collegiate church. On his death in 1474 the Bristol merchant William Canynges the Younger, who had spent his last years as Dean of the College, left one shilling to each of the almspeople (Williams 1950, 75). The returns made by the College for the *Valor Ecclesiasticus* in 1539 show that the twelve almspeople were then receiving 1d a day, with additional allowances for clothing, laundry and barley for bread and drink (Wilkins 1917, 126).

With the dissolution of Westbury College in February 1544 and the subsequent acquisition of its estates by Sir Ralph Sadleir, the carefully structured welfare provisions instituted by Carpenter came to an end, and the poor of Westbury became the responsibility of their fellow parishioners. During the remainder of the 16th century it is unclear what arrangements, if any, were being made for housing the poor. In the next century, however, we are told that Sir Ralph Sadleir's grandson, another Ralph, who held the College estate between 1609 and 1660 (Wilkins 1909, 18-20) gave "two large houses by the churchyard for the use of the poor; one called the Almshouse, the other ... the Church-House" (Atkyns 1712, 803). These two buildings remained in use until the late 18th century, when their structural condition began to give cause for concern. On 13 July 1796 the Overseers of the Poor for Westbury considered a report by a Bristol mason, Richard Spencer, who stated that "Having viewed and examined ... the two work or poor houses situated in the Parish of Westbury-on-Trym ..., the one on the north side and the other on the west side of the churchyard ..., I am of the opinion that the whole of the buildings in question are so bad and defective as to render it eventually necessary to take down and rebuild the same" (Poor Order Book, Bristol Record Office). Despite an additional verbal report from Spencer that the two buildings, and in particular the northern poor house, were "so ruinous as to endanger the lives of the inhabitants therein", the Overseers declined to be rushed into the large-scale reconstruction he proposed and authorised minor repairs only.

On 26 December 1800 a more detailed report was made to the Overseers by "James Forster", acting on behalf of William Paty. "Forster" is almost certainly identifiable as the Bristol architect James Foster the elder (c1748-1823), an associate and former employee of Paty (Gomme, Jenner & Little 1979, 433; Ison 1952, 34, 43). Foster concerned himself solely with the northern poorhouse. He advised that the west wall of the building was "near twelve inches out of perpendicular", while the north and south walls were in "a very defective state". The upper floor of the building was generally in a very poor condition, except in one room at the east end which had "undergone a thorough repair not long since". Foster expressed alarm

at the condition of the north-south "girders" supporting the upper floor which had rotted off at their southern ends due to the dampness of the retaining wall in which they were embedded and had been temporarily "supported by shores under them". The roof timbers were described as "very crooked and defective" although most were considered capable of reuse. In view of the inherent dampness of the southern retaining wall "occasioned by the earth lying against it", it was strongly recommended that rebuilding of the poorhouse, if decided upon, should take place on a different site.

In the light of this report the Overseers were forced to conclude that "to repair the Poor Houses in their present ruinous state is highly improper and would be a waste of the Parish Money" (Poor Order Book, Bristol Record Office). It was not however until 16 August 1802 that the Overseers authorised the building of an entirely new Poor House on a previously unoccupied hilltop site in Eastfield Road, 180 m south of the Church (Nat. Grid ref. ST 57377723). This large and conspicuous rectangular building, now divided into two private houses, was opened on 17 August 1804 and remained in use until reorganisation following the reform of the Poor Laws led to its closure in December 1838 (Moss 1967, 162, 170).

At this point we may conveniently retrace our steps to consider more closely the topography of the Westbury almshouses. We have seen that between c.1466 and 1544 there were two almshouses in the village, for six men and six women respectively. The women's house lay "next to the Collegiate Church" while the men's house stood "opposite the gateway of the College". (The gate thus referred to was either the surviving gate-tower of the main College building or (perhaps more likely) an otherwise unrecorded opening in the college precinct wall; a possible location for the latter, on the north side of Church Road midway between College and Church, is indicated in fig. 1A). We have also seen evidence for the existence during the 17th and 18th centuries of two poor houses, described by Atkyns in 1712 as the "Almshouse" and "Church House" and situated according to the late 18th century Overseer's records on the north and west sides of the churchyard. Despite a possible discontinuity of use during the later 16th century it would seem reasonable to equate these post-reformation poor houses with the two pre-reformation almshouses.

Considerable structural remains of the northern almshouse or poor house still exist, and it is with these that the present report is mainly concerned. Of the western building, on the other hand, no trace now survives above ground. Its location can however be established from a 1792 plan of the Westbury College estate (reproduced in Wilkins 1909, 24-25) which shows part of a substantial structure, on a north-south alignment, situated a little to the east of the surviving 15th century house at 38 Church Road in an area just within the western boundary of the churchyard. This western building may be identified with the "Church House" referred to by Atkyns. "Church Houses" were common in S.W. England during the period 1450-1650; normally situated on the edge of churchyards they were erected at the expense of the lay parishioners and used, rather in the same manner as a modern church hall, for "church ales" and other social activities intended primarily to raise funds for church maintenance (Cowley 1970). Prior to the reformation it is unlikely that Westbury possessed a "Church House" since the upkeep of the church would have been the responsibility of the College rather than of the local laity. After 1544, however, it seems quite possible that all or part of the western almshouse could have been taken over by the Westbury churchwardens

as a parochial meeting place before reverting to its original function as a poor house in the 17th century.

After the completion of the new Westbury Poor House in 1804 the way lay open for the removal of the two older buildings adjoining the church. The western building seems to have been quickly demolished, its site being absorbed into the churchyard. The northern building, on the other hand, was merely gutted, its shell being used to contain a row of eight cottages for the use of the poor. These houses seem to have been completed by 3 March 1806, when a parish terrier refers to the churchyard being "bounded on the north by certain Tenements belonging to the parish of Westbury-on-Trym" (Wilkins 1910, xviii). At the time of the 1841 census the row of cottages, then known as the "Long Entry", was housing a total of 46 persons. The buildings continued in use until about 1850, when the site was cleared. In 1853 a Vestry Hall was constructed at its western end, probably to the design of John Norton, who was then supervising the restoration of the church. The remainder of the site was left as a dumping ground for church and churchyard rubbish, a huge conical mound of debris being allowed to build up towards its eastern end. In February 1905 much of this accumulated waste material was cleared away (Wilkins 1910, xix); dumping was however soon resumed and has continued ever since, being supplemented by substantial deposits of ash and clinker from a boiler house constructed east of the Vestry Hall in 1925.

3. THE SITE (Fig. 1)

The site of the northern almshouse at Westbury-on-Trym (ST 57347743) occupies an artificial terrace on the south side of the narrow valley of the diminutive River Trym, which at this point cuts through deposits of Triassic keuper marl and dolomitic conglomerate. The terrace, 40.4 m long and 6.8 m wide externally, is bounded on the south by the churchyard and on the north and east by groups of late 18th or early 19th century cottages fronting onto Trym Road. It is defined by the outer walls of the mid 15th century almshouse, which are some 80 cm thick and are composed mainly of carboniferous limestone rubble bonded with reddish-brown mortar with white flecks. Since the mid 19th century the southern wall, supporting the churchyard, has been extensively patched and rebuilt, while the north and east walls have been reduced in height and capped with stone slabs or cement. Diagonal buttresses of triassic sandstone protrude from the north east and south east angles of the structure. The southern end of the east wall is pierced by a 15th century window recess (described in more detail in part 4B below) while indications of other blocked window openings, some of them probably of post-medieval date, are to be seen in the north wall. Towards the western end of the southern retaining wall, immediately to the east of the 19th century Vestry Hall (see below) is a small, plain, rectangular recess, probably a primary feature. The floor level of the 15th century building, as established by excavation, was some 5 m below that of the present churchyard and 2.6 m above that of the rear courtyards of the Trym Road houses (see fig. 1C).

The western end of the almshouse terrace is occupied by the Vestry Hall (now used as a Parish Office) constructed in 1853. This single storey building consists of a meeting room with a fireplace in its N wall, entered from the south through a passage which also provides access to the rest of the terrace. The ornamental west facade of the Hall is constructed of squared blocks of carboniferous limestone with oolitic limestone mouldings; it has a battlemented

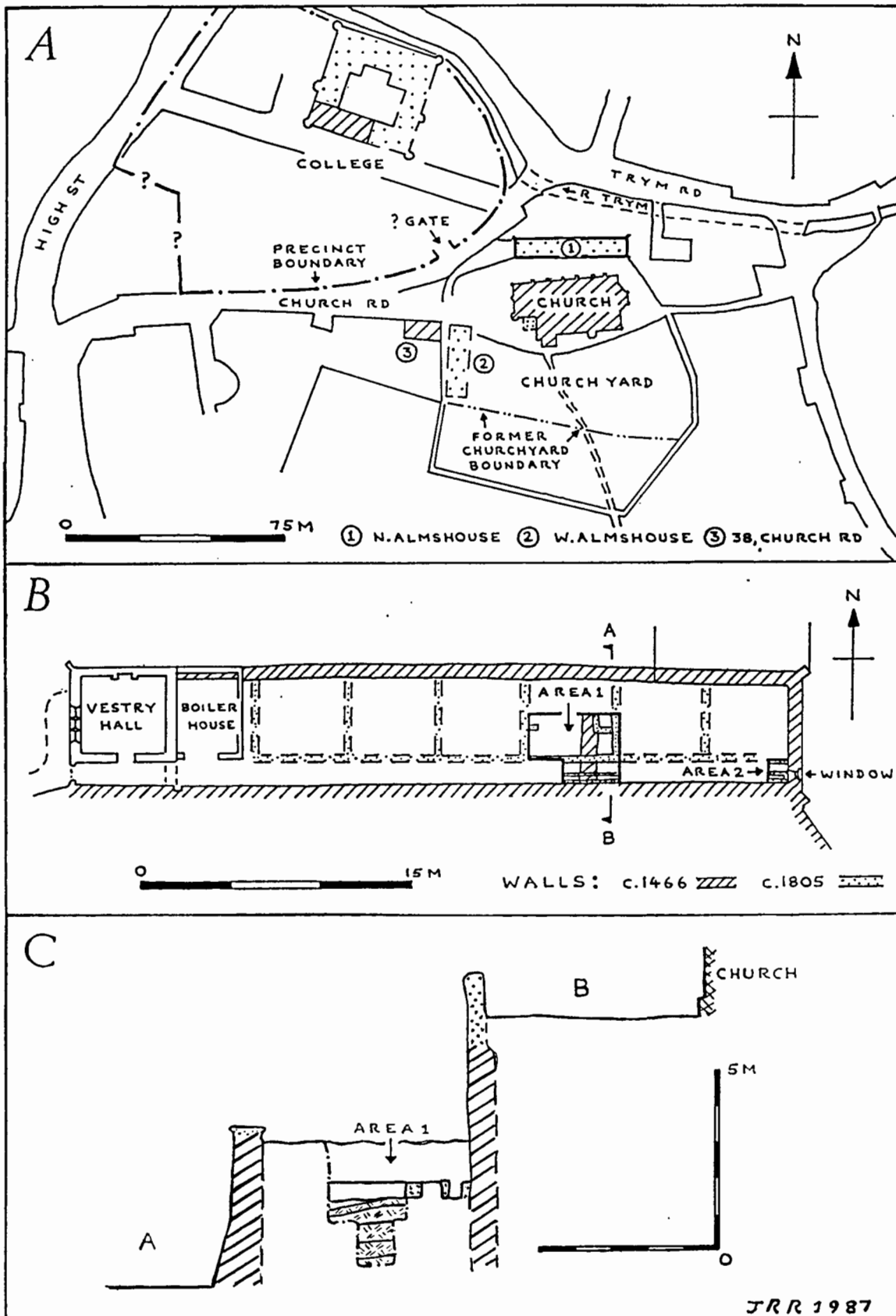


Fig 1 A: Location plan; B: Site plan of North Almshouse
C: Profile through North Almshouse terrace

parapet, a diagonal buttress at the north-western angle and a three-light window in the Perpendicular style, similar to those in the aisles of the adjacent church. The hood-mould above this window is continued southwards to form a rectangular surround for the two-centred arch over the entrance; the spandrels of this arch contain shields and stylized foliage. The east wall of the building, by contrast, consists of plain rubble with a segmental arch over the passage doorway. Against this east wall stands the brick-built boiler room constructed in 1925. The rest of the terrace is at present unused and covered by 20th century rubbish deposits, now heavily overgrown; these increase in thickness from west to east, reaching a maximum depth of 1.7 m close to the east wall.

4. THE EXCAVATIONS

4A: AREA 1 (Figs. 2-5)

Work in Area 1 was begun in June 1975 by opening a trench 3 metres square alongside the southern retaining wall. In 1976 this trench was extended to the north and west to produce an L-shaped excavation covering some 18 square metres. Work in this expanded area continued intermittently until September 1978. The following description of the excavation should be read in conjunction with Plans 1 and 2 (figs. 2 & 3) and Sections 1 - 4 (figs. 4 & 5). In the description a reference to a layer (L) or feature (F) is normally preceded by an indication of the plan (P) and/or section (S) on which it appears. Finds are referred to by the catalogue numbers (prefix SF) assigned to them in part 6 of the report.

The principal structural feature of the 15th century almshouse to be located within area 1 was a north-south wall 80 cm thick, constructed of carboniferous limestone blocks bonded with reddish-brown mortar with white flecks, similar to that used in the standing outer walls of the building (P1,S2,S4; F7/7A). The southern end of this wall had been pierced by an arched doorway approximately 1.10 m wide, of which part of the heavily worn threshold survived on the western side. The springing for the south side of this arch, which seems to have been wholly composed of undressed limestone slabs, was preserved in the retaining wall, indicating a height of 1.85 m from the threshold to the shoulder of the arch (see S2).

The base of F7/7A was surrounded by thick layers of red clayey soil derived from the underlying Triassic keuper marl and representing hillslope material cut away and then redeposited during the construction of the almshouse. These were most fully investigated on the east side of the wall, where a sondage extending to a depth of 3.4 m below the 1975 ground surface revealed five successive clay deposits (S4; L17-17D). The lowest course of F7/7A had been laid in a foundation trench cut from the top of L17C and extending into L17D. Above L17C the wall had been built freestanding, the remaining clay deposits L17B, 17A and 17 being successively packed against it. Up to the top of L17B the wall face had a rough appearance, with large gaps between the stones; above this, however, it was carefully pointed. At the junctions between layers 17, 17A, 17B and 17C deposits of carboniferous limestone chippings were noted, evidently left by masons working on F7/7A. L17, 17A and 17B all produced scraps of human bone, including the greater part of a lower mandible from L17B. L17 also contained a number of fragments of dressed freestone, including a section from a small late 12th century capital similar in style to those in the nave arcades of the adjacent church (SF21). L17C contained flecks of charcoal and a number of sherds of 13th to early 15th century pottery (SF1-6). On the west side of F7/7A a similar sequence of clay deposits can be

postulated, although only the uppermost of these (S1, S4; L19) was exposed during the excavation, which with the exception of a small sondage (see S1) was not continued below its surface. A fragment from a clay floor tile "waster", probably of 15th century date, was found in the top of L19 (SF18).

The upper surfaces of both L17 and L19 sloped markedly downwards from south to north. They were covered by a group of deposits which also appear to date from the mid 15th century construction period and seem to have been introduced to provide a level foundation for the almshouse floor. On the east side of F7/7A L17 was overlain by a loose tumble of carboniferous limestone blocks and chippings (S4; L16A), giving way further south to a series of more compact layers of red clay and small stones (S3, L12A-C). West of F7/7A L19 was covered by alternate layers of red clay (S1,S4; L13B,18A) and carboniferous limestone chippings (S1,S4; L18,18B). No datable objects were recovered from this group of deposits other than an 18th century sherd (SF7) and some clay pipe stem fragments from L16A, which in view of the loose texture of the layer concerned may well have been intrusive. The flooring which may be assumed to have originally sealed these layers was almost certainly composed of stone slabs. No trace of the floor itself survived, although part of its bedding is probably represented by a spread of hard reddish mortar with white flecks directly overlying L19 to the west of the doorway in F7/7A (P1,S1; L15).

Covering the sequence of deposits just described was a group of thin, compressed "floor" layers of clay and charcoal containing artefacts of 18th century date (P1, S1,S3,S4; L12,13A,14,14A,16). Layers 13A and 14, to the west of F7/7A, were covered by a spread of red clay and small stones with patches of mortar and charcoal (S1,S4; L13) which was in turn overlain towards the western end of the excavated area by an ashy deposit (L11D) capped by a layer of red clay (L11C); these deposits also produced 18th century material. This group of layers seems to represent a period late in this history of the almshouse when its paved floors had for some reason been removed and occupation debris was for the first time allowed to accumulate.

Associated with L13A and 14, and overlain by L13, was an enigmatic complex of mortar and plaster features (P1,S4; F12-12D). This comprised a central spread of greyish mortar with numerous ash and pebble inclusions (F12) flanked on the west by a similar, more elongated spread (F12D) and to the north east by a mass of white plaster (F12C). To the south east of F12 and F12C, adjoining the western face of F7A, was a further mortar spread (F12A) defining the impression of a stone block or timber baulk 50 cm long and 20 cm wide. Overlying the northern end of F12 were two fragments of pennant sandstone roof-tile. F12A almost certainly formed a setting for one of the "shores" described in Foster's report of 1800 as supporting the decayed upper floor of the almshouse. The remaining features in this group are more difficult to interpret convincingly, although their general arrangement suggests the base of an oval oven, opening to the south. No evidence of burning was noted on the upper surface of F12; substantial pockets of ash and charcoal were however present around its periphery, as well as in the associated layers 13A and 14. Probably contemporary with F12-12D was an apparent stake-hole, 6 cm in diameter, to the south of F12A (P1; F9). Finds from this group of layers and features included a worn Irish halfpenny of 1742 resting on F12C (SF31), the fragments of an almost complete late 18th century stoneware mug scattered within L13 to the south of F12 (SF11) and an inscribed clay pipe bowl of early 18th century date from L14 (SF20).

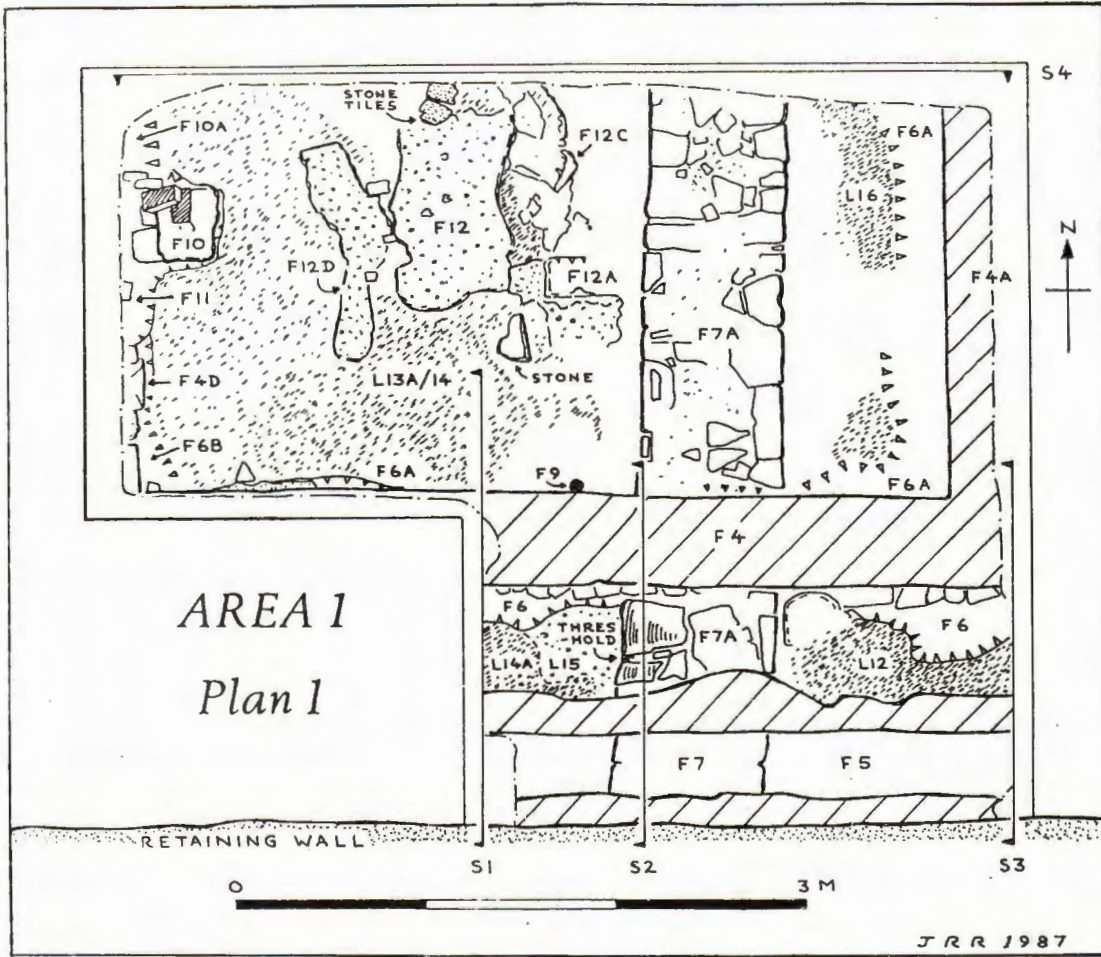


Fig 2 Area 1, Plan 1

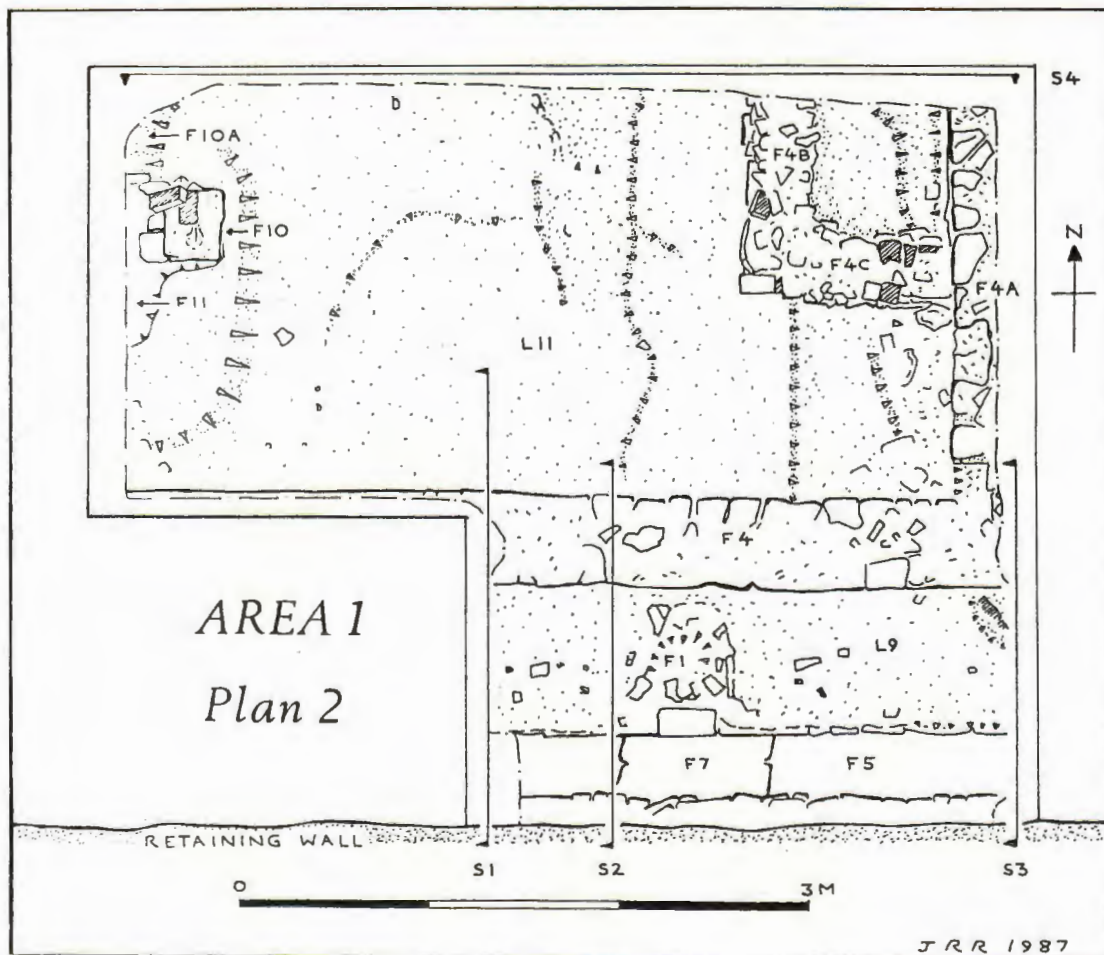


Fig 3 Area 1, Plan 2

These 18th century deposits and features were sealed by the remains of one of the row of eight houses constructed within the shell of the almshouse between 1804 and 1806. Parts of the south and east walls of this building were exposed within the excavated area (P2,S1-4; F4,4A) together with the eastern edge of its west wall (P1; F4D); set in shallow foundation trenches (P1,S1,S3; F6,6A,6B) they were constructed of carboniferous limestone rubble bonded with light brown mortar. Protruding from the west wall (F4D) was a group of stone slabs supporting the remains of a brick pier (P2; F10) which seems to have formed the southern side of a fireplace. To the north of F10 the edge of a probable ash-pit (P2,S4; F10A) was partly exposed. Within the area enclosed by F4, F4A and F4D all earlier deposits and features were concealed below a thin layer of light brown mortar, evidently forming the base of a cavity beneath the timber floor of the house (P2,S1, S4; L11). Adjoining F4A and resting on L11 was an L-shaped foundation, almost certainly a stair-base, roughly constructed of carboniferous limestone rubble, bricks and tile fragments (P2,S4; F4B,F4C).

Between F4 and the southern retaining wall was a section of the access corridor, 1.25 m wide, which ran the whole length of the row of cottages. A sketch of c.1840 by John Norton (Wilkins 1910, xviii) and a photograph of structural remains uncovered during the clearance of debris from the site in 1905 (Wilkins 1910, opposite xix) indicate that the party walls between the houses (e.g. F4A, F4D) were carried over the corridor on segmental arches. Scars left in the retaining wall where those arches were keyed into it show that they were placed 2.6 m above the corridor floor (see S3). Below the corridor on its southern

side ran a stone-walled drain 35 cm wide and 50 cm high (P2,S1-3; F5). The lower filling of the drain consisted mainly of dense black silt (S3; L7); towards the western end of the excavated section, however, this gave way to a yellowish brown gritty deposit (S1; L7A) associated with an iron concretion in the base of the drain. In addition to a considerable quantity of early to mid 19th century pottery L7A produced a bronze livery button (SF30). Between F5 and F4 the rubble and mortar filling of the foundation trench F6 (S1,S3; L10A) was covered by a make-up layer of reddish brown clayey soil containing small stones and pockets of ash and mortar (S1,S3; L10). Overlying L10 were patchy deposits of a hard grey mortar used in pointing F4 (S1; L9A) which were in turn sealed by a thin layer of grey ashy mortar forming a bedding for the corridor floor (P2,S1,S3; L9). Fragments found in the upper filling of F5 (S1,S3; L6B) indicate that the floor itself was composed of pennant sandstone slabs.

After the demolition of the row of cottages c.1850 the underfloor cavity within the excavated house was filled with a deposit of rubble, tile and mortar fragments (S1,S4; L8A) partially covered by a thin layer of red clay (S1; L8). Subsequent to the initial demolition a robber trench was cut through L8A to remove parts of the footings of the western wall F4D (P1; F11). In the adjoining corridor the drain F5 was also filled with demolition material (S1,S3; L6B) including bricks, slates and clay pan tiles with an S-shaped profile, as well as the pennant sandstone floor slabs already mentioned. Sealing this filling was a layer of loose white mortar (S1,S3; L6A) partly overlain by a spread of light brown mortar and clay (S3; L6).

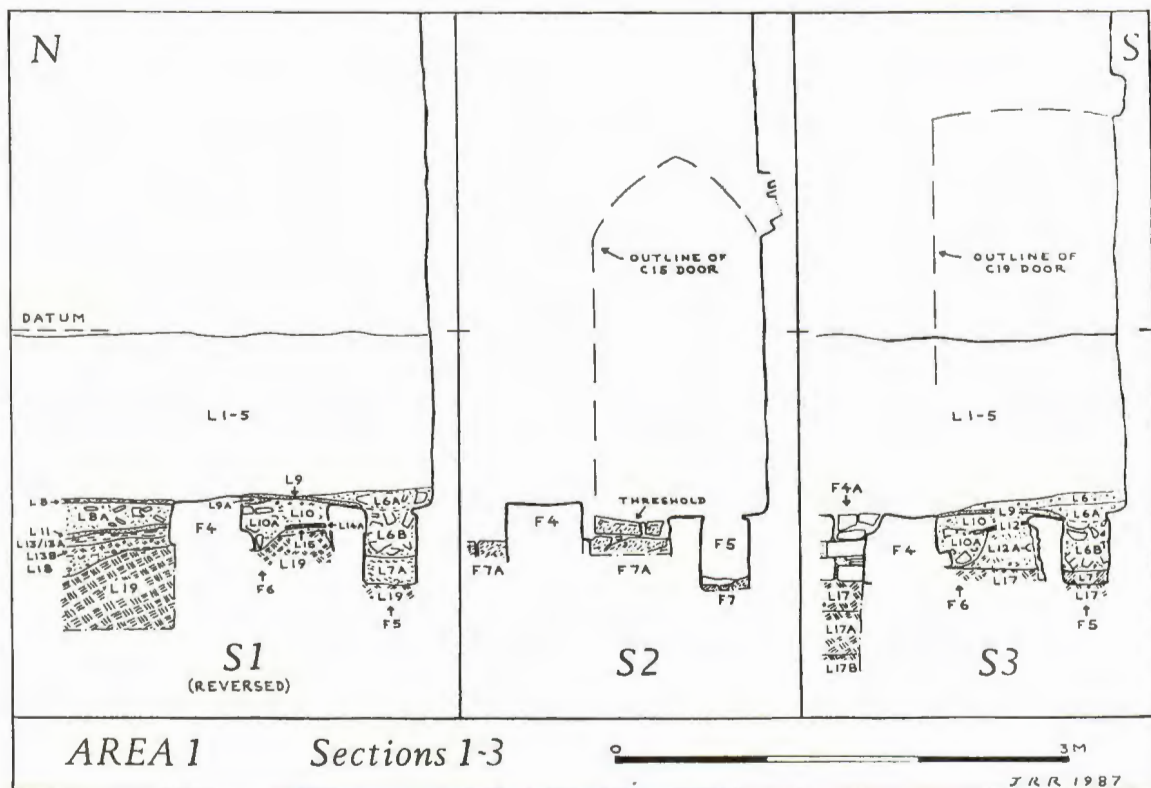


Fig 4 Area 1, Sections 1-3

Above these demolition deposits was a series of dumped layers of clay, rubble, boiler-house waste and church-yard refuse with a total thickness of between 1.10 and 1.20 m (S1,S3,S4; L1-5). It is evident from associated artefacts that these layers are all of comparatively recent origin, post-dating the recorded clearance of earlier rubbish accumulations in 1905; they have not therefore been delineated in detail in the accompanying section drawings. Close to the southern retaining wall, opposite the arch-spring of the doorway in F7/7A, was an oval pit 1.50 m long and 0.60 m wide, cutting through this sequence of recent rubbish deposits down to the bedding of the corridor floor (P2; F1). This is understood to have been dug c.1960 by a group of local antiquarians in a vain search for a supposed "secret passage" leading from the church to the college.

4B: AREA 2 (Fig. 6)

This small excavation (1.10 m by 1.30 m) was carried out in the south-east corner of the almshouse terrace during March and April 1976, with the primary aim of examining a window recess in the eastern wall of the almshouse which at the time was largely concealed by recent debris. It was also hoped to be able to compare the constructional sequence at the eastern end of the site with that already encountered in Area 1. In the event the depth and unstable nature of the recent rubbish accumulations prevented completion of both the excavation and its associated recording. It should thus be noted that while the plan of Area 2 published here (fig. 6A) is derived from a measured survey the accompanying elevation of the east wall (fig. 6B) is based on unmeasured sketches. Since 1976 the

window recess has been partly filled with cement, obscuring some of its structural details.

Clearance of the splayed window recess (F19) demonstrated that it was a primary feature of the mid 15th century eastern wall of the almshouse (F20). The lintel of the recess, possibly not original, consisted of a large block of carboniferous limestone. Its base seems to have been covered with stone slabs, of which the yellowish mortar bedding survived in part. The window itself, occupying the upper portion of the recess, was largely blocked with late 18th or early 19th century brickwork but retained its original two-centred arch head, composed of two blocks of oolitic limestone. Below F19 was a deep rectangular socket (F21), also a primary feature, partly filled with the white flecked reddish-brown mortar used in bonding F20. At a higher level in the wall to the north of F19 was a second socket (F22) of uncertain date and purpose.

To the west of F20 the eastern termination of the early 19th century corridor drain (F5 in Area 1) was encountered (F15). One edge of the north wall of the corridor (F4 in Area 1) was also located (F16). In the angle between F16 and F20 part of a pennant sandstone floor-slab (F17) remained in position. It was evident that in this area late 19th or early 20th century disturbance had penetrated well below the early 19th century floor-level represented by F17. The area between F15 and F16 was filled with a layer of reddish-brown clayey soil (L26) containing fragments of metal wreath-frames. Cut into L26 was a shallow pit (F18) containing a large carboniferous limestone block and filled with ash, cinders and mortar (L27). Overlying these layers and features was a varied deposit of 20th century debris (L25) up to 1.70 m thick.

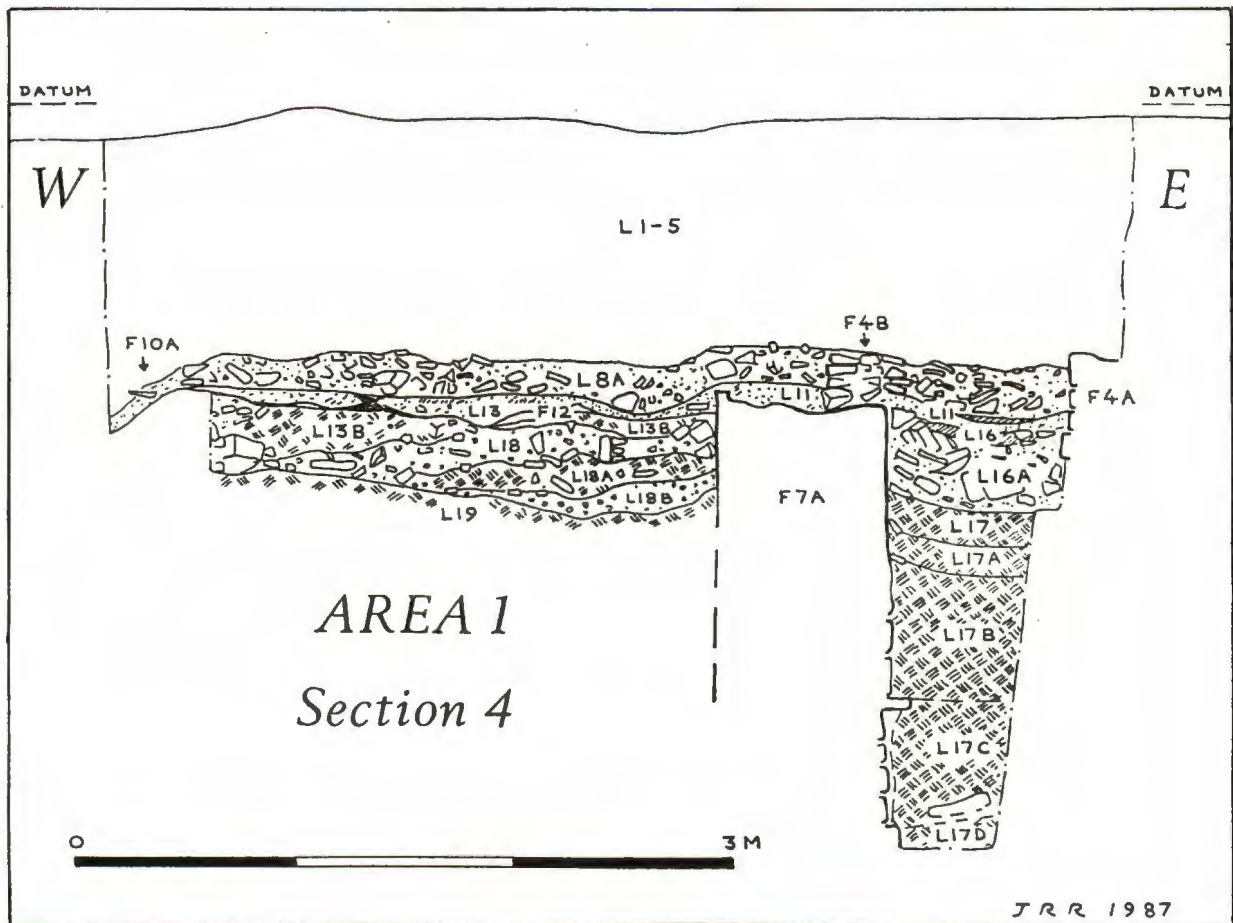


Fig 5 Section 4

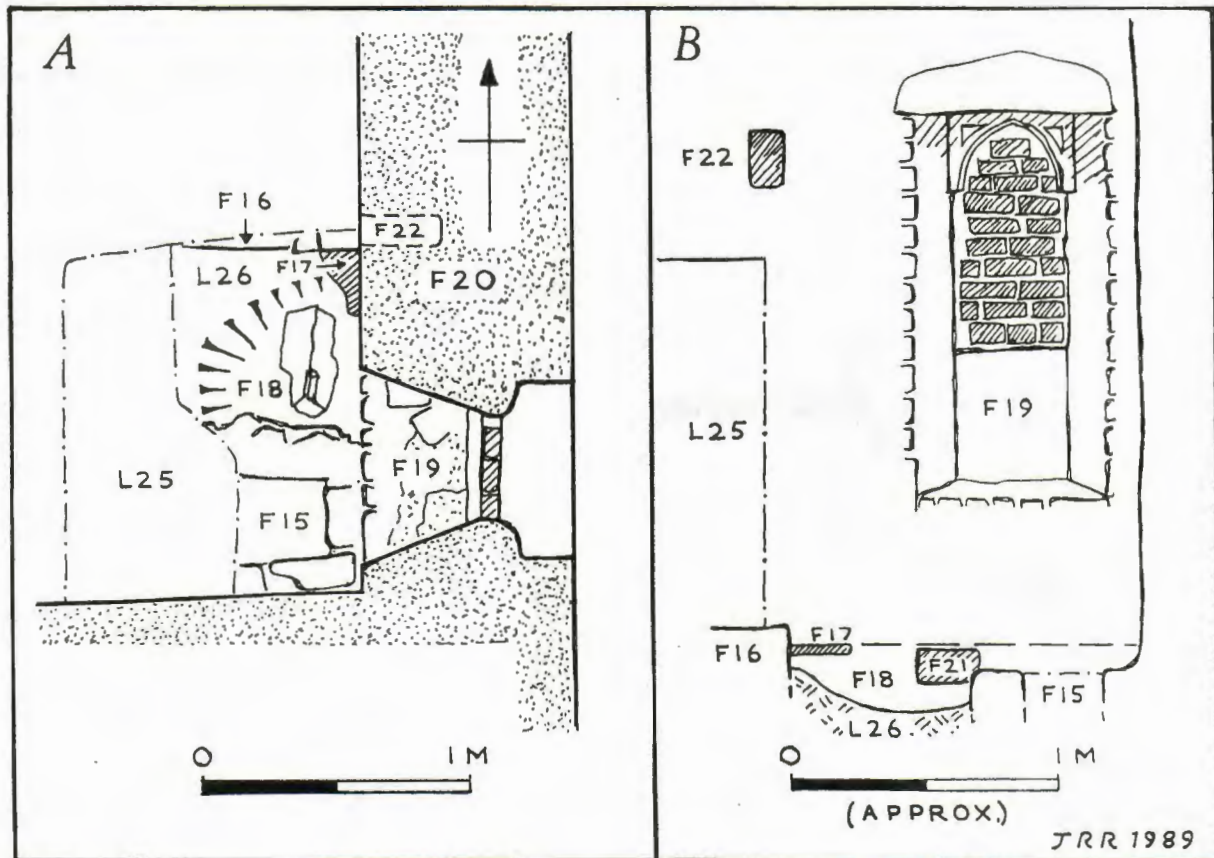


Fig 6 A: Area 2 Plan; B: Area 2 sketch elevation of east wall of almshouse

5. SUMMARY AND CONCLUSIONS

While severely limited in extent the 1975-1978 excavations have helped to elucidate several aspects of the structural history of the almshouse site. The construction of the almshouse in the mid 1460's can be seen to have been a laborious, difficult and potentially hazardous engineering operation, involving as it did the cutting back of a 40 metre stretch of hillside to a depth of at least 7 metres little more than 6 metres from the north wall of the collegiate church. Much of the clay subsoil removed in the initial site clearance was subsequently packed back around the rising walls of the new building. Scraps of human bone found in these redeposited clay layers indicate that burials had taken place in the hillslope prior to the 1460's, while pieces of dressed freestone from the same deposits hint at the earliest use of the area by masons working on the adjacent church.

In view of its intended function Carpenter's location of his almshouse on a damp and sunless north-facing slope appears to modern eyes decidedly perverse. It was nevertheless, like all Carpenter's buildings at Westbury, very solidly constructed, with walls over 80 cm thick. The internal arrangements of the almshouse remain largely obscure. The discovery in Area 1 of a substantial north-south wall (F7/7A) 10.5 m from the east end of the building tends to suggest however that the original layout consisted of a series of large rooms designed for communal living rather than of individual apartments for the almspeople. It may also be inferred from the positioning of the doorway in F7/7A and of the window (F19) in the

eastern wall that a through-passage ran along the south side of the building, perhaps defined on the north by timber partitions.

Scarcely any artefactual evidence was found during the excavations for the occupation of the building between the late 15th and early 18th centuries. This is presumably because the ground floor of the almshouse was paved with stone slabs, regularly swept clean. During the 18th century, when the building is known from documentary sources to have fallen into decay, this paving seems to have been removed, allowing thin occupation deposits to accumulate. It is clear from Foster's survey of 1800 that the almshouse had an upper floor. Foster's description implies that joist-sockets for this floor should be traceable in the southern retaining wall; none were however noted when the wall-face was examined at the time of the excavation. Two blocked 15th century doorways in the north aisle wall of the collegiate church suggest that direct access may have been possible from the upper floor of the almshouse to the churchyard.

Between 1804 and 1806 the old almshouse was gutted internally and a row of eight houses for the poor constructed within its shell. The southern half of one of these cottages (the third from the eastern end) was examined within Area 1; it was shown to have had a single room at ground level (measuring 4.2 by 4.1 m internally) with a raised timber floor, a fireplace in its western wall and the base of a staircase leading to an upper storey on the east. The houses were entered from the south by a

corridor running the whole length of the site, their party walls being carried across it on segmental arches in order to provide support for the southern retaining wall. Apart from these cross-walls the corridor seems to have been open to the sky, with a drain for rainwater running below its stone-flagged floor.

Further archaeological excavation on the site of the almshouse would not appear to be worthwhile unless

carried out on a considerably larger scale. This does not seem practicable in the foreseeable future due to the difficulties of spoil disposal within the very constricted site. In the meantime a detailed survey of the standing walls of the structure would be highly desirable, as would additional documentary research into the history of the building and its occupants, particularly during the post-reformation period.

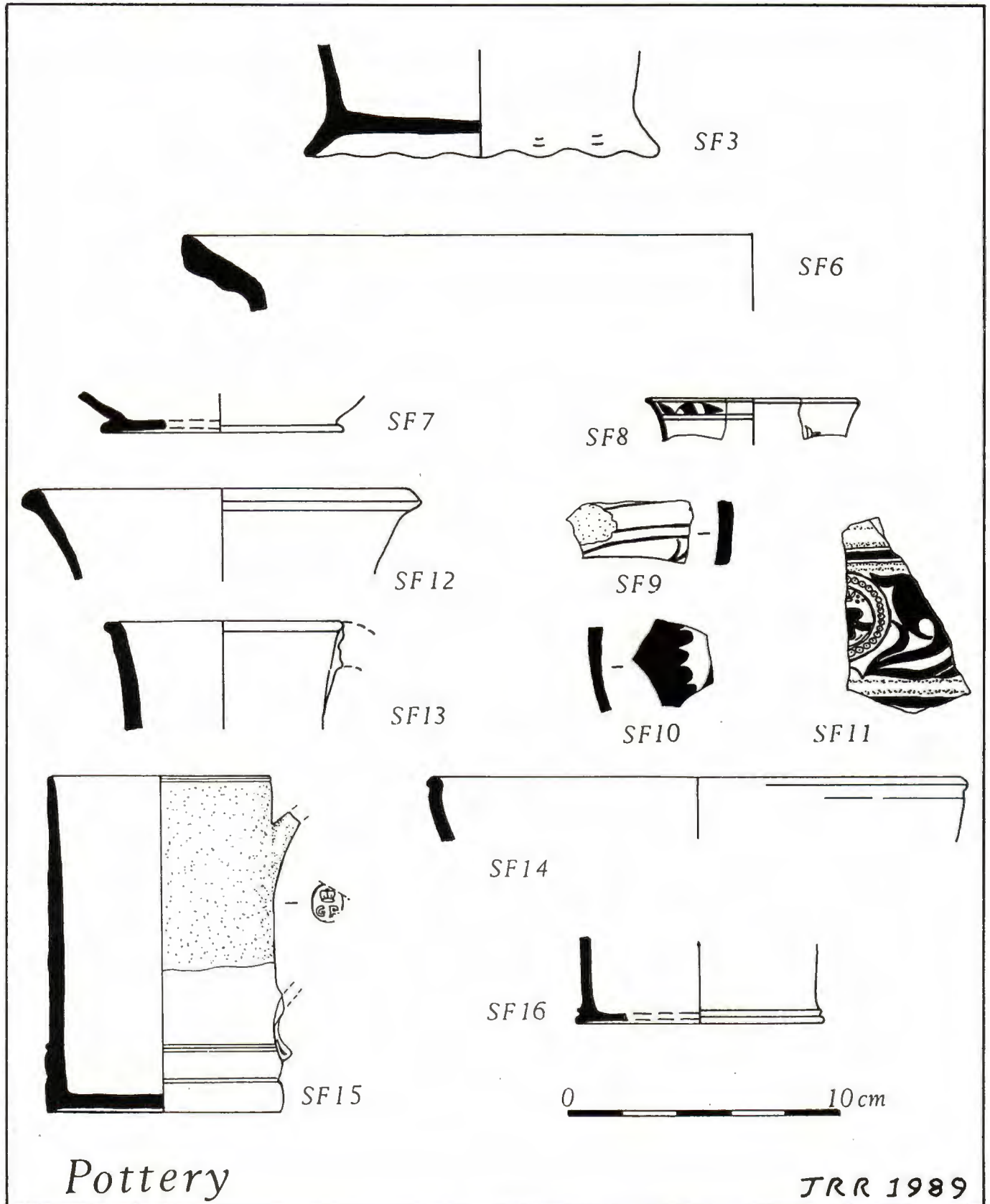


Fig 7 Pottery

6. THE FINDS Figs. 7 & 8

Medieval Pottery (Incorporating comments by M.W. Ponsford)

- SF1 Sherd from shoulder of jug, with broad, intermittent concentric groovings externally. Dull Green external glaze. Grey fabric with pink inner surface. Ham Green ware (Fabric B). 13th century. L17C.
- SF2 Body sherd cooking pot. Reddish brown fabric with red sandstone and quartz inclusions. Coarser than Ham Green cooking pot fabric. 13th century. L17C.
- SF3 Four joining sherds from frilled base of jug. Mottled green external glaze. Grey fabric with pink outer surfaces; numerous small dark inclusions. Bristol Redcliffe ware. c.1300. L17C. (Fig. 7).
- SF4 Body sherd from jug. Light green external glaze. Hard grey fabric with buff inner surface. Bristol Redcliffe ware. Early 14th century. L17C.
- SF5 Two body sherds from cups. Dark green external glaze. Fine white fabric. "Tudor Green" ware. After c.1420. L17C.
- SF6 Two joining sherds from sharply everted rim of (?) pancheon. Traces of green glaze on upper surface. Dark grey fabric with white limestone inclusions. Minety ware. 15th century. L17C. (Fig. 7).

Post-Medieval Pottery (including comments by R.G. Jackson)

- SF7 Base sherd from (?) posset pot or chamber pot. Buff fabric blackened externally. Internal white slip with yellow glaze. 18th century. L16A. (Fig. 7)
- SF8 Two joining rim sherds from cup. Porcelain, with underglaze blue decoration below rim. 18th century. L13A, below F12. (Fig. 7).
- SF9 Sherd from plate. Tin glazed earthenware with pale blue internal decoration. First half of 18th century. L13A. (Fig. 7),
- SF10 Sherd from plate. Tin glazed earthenware with blue internal decoration (leaf motif). First half of 18th century. L13A. (Fig. 7).
- SF11 Sherd from blue-grey salt glazed stoneware mug. Moulded and incised decoration with cobalt blue infill, incorporating medallion with (?G)R monogram. Westerwald. 18th century. L13A. (Fig. 7).
- SF12 Two joining rim sherds from shallow bowl. Unglazed red earthenware. 18th century. L13A. (Fig. 7)
- SF13 Rim sherd from handled (?) jug. Red earthenware with internal and external brown glaze. 18th century. L13. (Fig. 7)

- SF14 Two rim sherds from bowl. Red earthenware with patchy brown internal glaze. 18th century. L13. (Fig. 7).
- SF15 Salt-glazed stoneware mug, largely complete except for parts of rim and handle. Revenue stamp GR with crown above. ?Late 18th century. L13, south of F12. (Fig. 7).
- SF16 Base sherd from mug. Buff earthenware with internal and external iron glaze. Mid-late 18th century. L11D. (Fig. 7).
- SF17 Three body sherds from large pancheon. Internal green-brown glaze. Grey fabric with red outer surface and large quartz inclusions. North Devon ware. 18th century. L11, above F7A.

Medieval Floor Tiles

- SF18 Waster fragment, 2.8 cm thick. Red fabric with a few small red inclusions. Patch of white slip below clear glaze on upper surface. L19.
- SF19 Fragment of tile 11 cm square and 3 cm thick, cut diagonally. Dark red fabric, slightly overfired, with white and buff inclusions. Dark brown glaze on upper surface. L13.

Clay Pipe (By R.G. Jackson)

- SF20 Fragment of spurred bowl with moulded mark "IG" in circular cartouche on side of bowl. The form of the bowl is 18th century while the type of mark is typical of the first half of the 18th century. L14. (Fig. 8). The bowl form and initials would tie in with the pipemaker John Grant who was known to have been working in Westbury-on-Trym in the early 18th century. On 6 January 1708 he was granted a licence to marry Jane Syndry of Westbury. It may have been his son William who was baptized at Westbury on 13 December 1709. Further children were baptized in 1712 although it is not known if the father, John Grant, was in fact the pipemaker. A John Grant obtained his freedom as a pipemaker in Bristol in 1736 as he was married to Jane, the daughter of Samuel Packer, a hooper. Whether this is the same John Grant who married Jane Syndry in 1708 is open to doubt.

Worked Stone (Oolitic limestone)

- SF21 Fragment of capital with cable moulding, similar in style to those of the late 12th century nave columns in Westbury Church. Original diameter c.16 cm. The size of the capital suggests that it was intended to form part of a small scale decorative feature such as a wall-arcade or sedilia. The lower surface of the fragment is however cut across diagonally, suggesting that it may have been damaged by the mason and discarded before use. L17. (Fig. 8).
- SF22 Fragment of roll-moulding. Maximum length 6 cm. L17. (Fig. 8).
- SF23 Fragment of (?) tracery with remains of limewash coating. Maximum length 4.5 cm. L17. (Fig. 8).

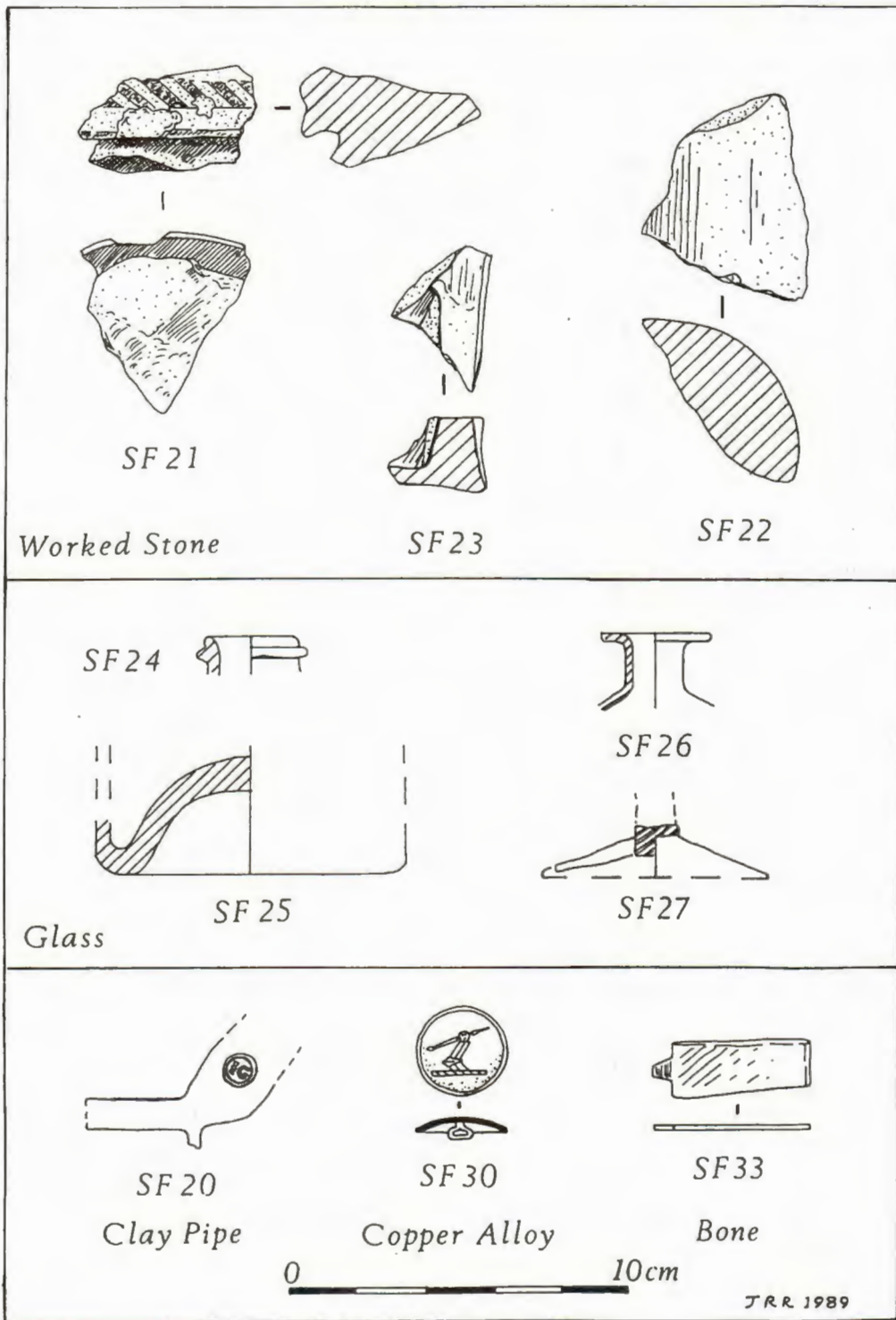


Fig 8 Small finds

Glass

- SF24 Neck of a wine bottle, dark green glass. ?Early 18th century. Diameter 3.5 cm. L13A. (Fig. 8).
- SF25 Base of wine bottle, dark green glass. 18th century. Diameter 8.5 cm. L11D. (Fig. 8).
- SF26 Neck of pharmaceutical bottle, clear blue-tinted glass. Diameter 3.5 cm. 18th century. L13, north edge of F12A. (Fig. 8).
- SF27 Base fragment of wine glass with "air-twist" stem, clear glass. Mid 18th century. L13. (Fig. 8).
- SF28 Cylindrical bead of opaque red glass over black glass core. Length 8 mm, diameter 3 mm. L13A.
- SF29 Cylindrical bead of transparent red glass over white glass core. Length 11 mm, diameter 8 mm. L8A.

Copper Alloy

- SF30 Livery button, with traces of gilding. On front, crest consisting of right arm in plate armour clutching spear pointing downwards to the left. On reverse, EXTRA SUPERFINE BEST QUALITY in circle surrounding central attachment loop. Diameter 2.6 cm. Mid 19th century. L7A. (Fig. 8).

Coin

- SF31 Irish halfpenny, George II. Obv. GEORGIUS II REX, with bust facing left. Rev. HIBERNIA 1742 with crowned harp. Worn. Diameter 2.7 cm. L13, resting on F12C.

Jetton

- SF32 Nuremburg jetton. Obv. HANS: SCHULTES ... AN surrounding *Reichsapfel* in trilobe. Rev. HA(NS SC)HULTES: ANC: UN: surrounding three crowns alternating with three lys. Diameter 2.3 cm. Late 16th century. L8A.

Bone

- SF33 Polished rectangular bone plate with bevelled edges and wedge-shaped projection at one end. Length 4.7 cm, width 1.6 cm, thickness 1.5 mm. (For similar object from 18th century context in Abergavenny see Radcliffe & Knight 1973, 83:4). L13, between F12 and F12A. (Fig. 8).

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THE PERAMBULATIONS OF COAL IN WESTERLEIGH IN 1691 and 1696

Andrew Ravensdale

The Perambulations of Coal in Westerleigh were both an event and a record. The event, modelled on previous perambulations of the bounds and liberties of the manor, consisted of a day in 1691 spent by some thirty members of the mining community walking through the parish in a great arc from Henfield in the south-west to Westerleigh village in the south-east, stopping at each pit and outcrop on the lord of the manor's freehold lands and sharing their information (see Fig. 1). It was repeated on a less ambitious scale in 1696, with some of the same people involved. The record, which may have been the real purpose of the event, is contained in thirty pages of a bound manuscript book preserved among the Ashton Court papers in Bristol's Council House, and was written in a good law-hand by the son of one of the leading miners. It can be made to yield rich information on the early archaeology of coalmining in Westerleigh, with a degree of detail that does not appear to be common for this period. It also - and to my mind just as importantly - offers valuable insights into the social organisation of the coalmining trade in South Gloucestershire at that date, and affords a glimpse of the values and attitudes of some of those involved.¹

THE MANOR

Coal-mining on a commercial basis can be documented for Westerleigh from 1607.² On general grounds, it could have begun any time in the previous half-century. John Smith (*Men and Armour for Gloucestershire in 1608*, Gloucester 1980) gives the occupation of six men as "colliers". This must be an understatement of the total workforce, which would have included boys, men too old or infirm for militia service, and very probably some who gave a different primary occupation. The coal being worked here was an outcrop of some of the same series that occur in the better-publicised mining district of Kingswood, some few miles to the south. The Westerleigh seams were of good quality, and almost completely free of gas. They were also rather narrow.

The manor of Westerleigh came into lay hands at the dissolution. A good summary of the descent of the manor can be found in the Ashton Court AC/AS catalogue, BRO. Place names, field layout, maps, the documentary sources and the persistence of pastoral farming all indicate that enclosure was fairly early and that "high farming" - the capital intensive, market-orientated approach to agriculture that emerges in the late middle ages - was almost certainly practised. (For the persistence of place names and field boundaries, compare the current Ordnance Survey six inch maps, ST 67 NE and ST 68 SE, with the Tithe map of 1845 and the Smyth estate map of 1772, AC/PL 89/1-2. The tithe apportionments show the persistence of fieldnames and the durability of some of the compact farms or estates into which the manor was di-

vided. No document I have seen refers to open fields or related practices of collective management. S. Rudder, *A New History of Gloucestershire 1783*, comments on the prevalence of pasture, a key feature of high farming. This can also be seen on the ground today). By the time of the Perambulation there were therefore no copyholders, and there was in existence that rural proletariat of artisans and wage labourers from which the original workforce of the industrial revolution was so often recruited. (Smith lists 14 weavers, 6 colliers, 4 tailors, 3 clothiers, 2 warburners and 1 hatter among the 119 adult males of the parish liable for military service.) Mineral rights in Westerleigh clearly lay with the freeholder, and though the tenants probably had a right to compensation it is extremely unlikely that they had a right to deny the miners entry to their tenements. The freeholder in the case of Westerleigh means with two important exceptions the lord of the manor who in 1691 was Samuel Astry, a London lawyer and legal functionary of gentry origins who had married a Gloucestershire heiress and afterwards became very busy in the raising of mortgages and the acquisition of landed property. Astry, non-resident, seems clearly to have seen Westerleigh as a commercial proposition, and the evidence for high farming makes it at least possible that his predecessors were also influenced by proto-capitalist attitudes. Thus the three critical factors of production can be identified: control of mineral rights, the existence of a pre-industrial workforce, and access to capital based on the security of freehold title.

The May's Hill estate which straddled the Bristol-Yate highway in the north of the parish was in 1607 the property of the Smyths of Long Ashton, who by marriage and inheritance were to acquire an interest in the manor and lands of Westerleigh in 1708. In 1607 the May's Hill coaling rights were leased, and Astry may have held a coaling lease for this land in 1691. Certainly the perambulators treat the May's Hill estate, for practical purposes, as part of Astry's lands.

The other major freehold property in the parish was in 1691 in the hands of William Dennys. This included the Serridge estate, which ran from the junction of the Ruffett and Henfield roads, where Serridge House now stands, south to the brook and possibly beyond to Serridge Cottage. Later, leased by the Smyths and their associates, this estate became the site of their major coal-works in the first half of the eighteenth century. Nearby were Middleton's Ground and Fowles's Farm. Middleton's consisted of several fields between Ram Hill and Roundways, crossed by the modern railway line. Fowles's, later gentrified as Voule's and now known as Rose Oak Farm, ran from Roundways to Frog Lane where the latter turns eastward to join the Badminton Road. Denny's successors also held land at Kendleshire, in the south-west of the parish, at

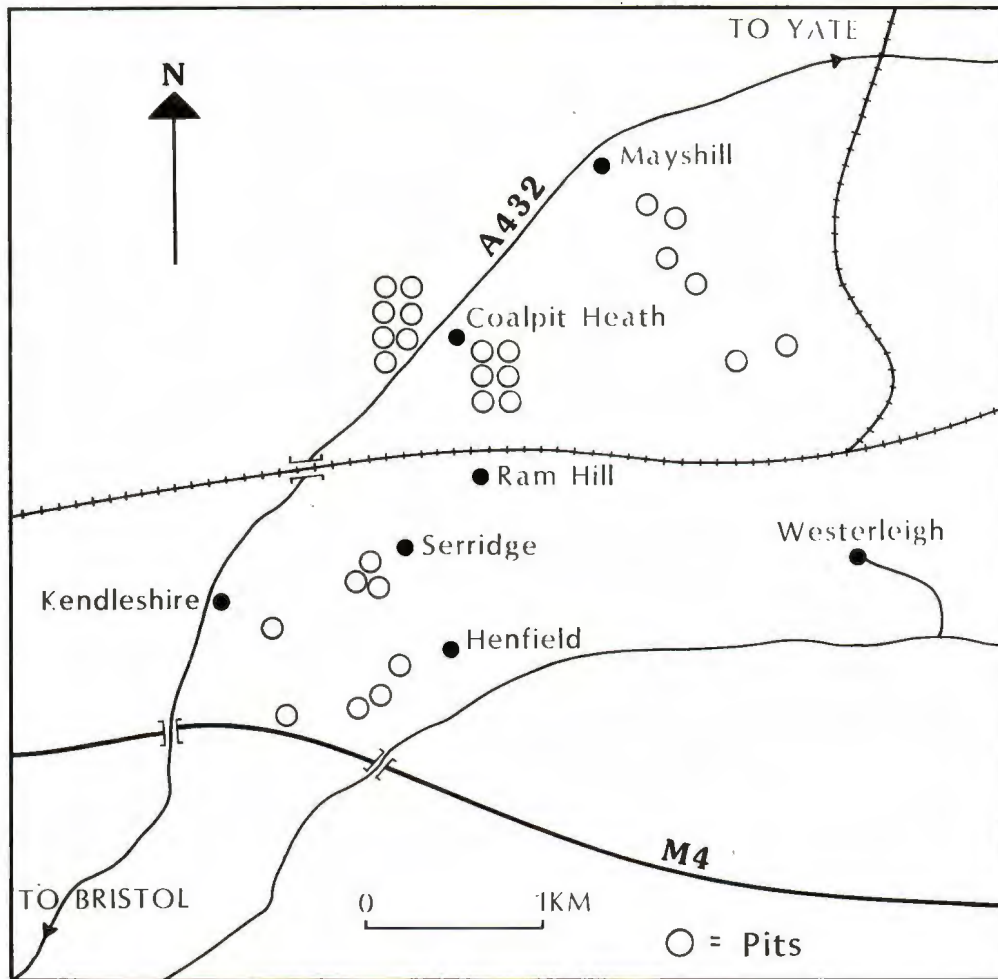


Fig. 1
 1, Kendleshire. 2, Serridge. 3, Henfield. 4, Westerleigh.
 5, Ram Hill. 6, Coalpit Heath. 7, Mayshill. All pits shown
 are from the Perambulation.

Lyde Green - an enclave of Westerleigh in the parish of Pucklechurch to the south - and at Shortwood Farm in Pucklechurch, near the site of Parkfield Colliery New Pit (identified with Handel Cossham). All these lands were later mining sites, and the Perambulations make it clear that Dennys was active in mining also. However most of his activities seem to have been concentrated in the home estate of Serridge. The perambulation does not cover any of Dennys's lands, being confined to May's Hill and Astry's manorial freeholds.³

LOCATION OF SITES

The key to the identification of the sites named in the Perambulations is the title map of 1845 (BRO). Field boundaries between 1845 and the present have been obscured by residential development in Coalpit Heath and to a lesser extent in Westerleigh, but otherwise they have remained remarkably constant. The major change between

1691 and 1845 would have been the development of mines and the construction of railways in the Henfield/Ram Hill area. The fieldnames used by Robert Sherman in writing up the Perambulation are in many cases those used in the tithe apportionments.

The Perambulation opens with a list of participants, and then proceeds to deal with the pits one by one. They are arranged analytically, vein by vein, the Great Vein being dealt with first, followed by the Holly Bush, the Ragg and the Hard veins. (The Great Vein may be what was later known as the High Vein. The names Holly Bush and Hard persist into the twentieth century.) Each sequence however follows the same geographical progression, from south to north as far as May's Hill and then from north to south (though not all of the veins outcrop along the whole route). It is fairly clear, then, that Sherman's rational presentation must have been worked up later, from his notes.

Each pit has a separate sub-heading, which rather than a name of the type familiar to industrial archaeologists concentrating on a later period is simply a topographical reference. The usual elements of these references are field-names, estate names and the names of occupiers or owners of land. These are occasionally supplemented by references to other features - such as a named person's house, a stream, a lane - and more detail is usually given in the description. Typical examples of these identifying sub-headings are as follows:

The Great Veine in Mr Grubb's Meadow
 The Great Veine in Harespitt
 The Great Veine in Great Bean lease belonging to Nathaniel Friend's Estate aforesaid.

A good example of the supplementary information which is available from the description is the following, from which it will be seen that the language of the Perambulation presents few difficulties. It is taken from an account of a pit on the Great Vein in Meadowlease:

The North-West end of which said grounds extends to the Lane against the Said Widow Baskerville's dwelling-house, the Cole ... ranged northward from a corner of the said Lower West:field ... (and) ended Southward about twenty yards in the Said Nathaniel Friend's great beane:leaze.

Altogether nineteen fieldnames used in the Perambulations can be identified confidently in the 1845 apportionments, though some complications arise over the appearance and disappearance of subdivisions. These fieldnames and the apportionment numbers are as follows:

Bean Leaze 232
 Blackberry Wood 957
 Cock Shoot 957
 Cowslip Meadow 279
 Great Padlands 282
 Harespitt Hill 502, 511, 515/6
 Haycroft 462
 The Hill 85, 366, 664, 655
 Leigh Meadow 951
 Little Dodmoor 1077/8
 Little Bean Leaze 233
 Lingley 1209
 Middleton's Wood 1117
 Pittlands 713
 Rodford Ground 727, 737
 Upper Padlands 284
 Westerleigh Meadow 755
 Westworthy 277, 287
 Woodleaze

This leaves another nineteen fieldnames unaccounted for, and in these cases identification depends on cross-references and the other topographical information given. Of the thirty-eight individual pits, groups of pits or other coal sites mentioned on Samuel Astry's land it was finally possible to identify eighteen with enough accuracy to give six-figure references. Two of these references, in a field adjoining Ruffett Road, turned out to correspond to physical remains of pits clearly identifiable on the ground as early in technique.

Pits in Henfield

Between Henfield and Serridge the perambulators recorded ten pits and gave the location of one deposit that had not been exploited. (See Fig. 2.) Their details and locations are as follows:

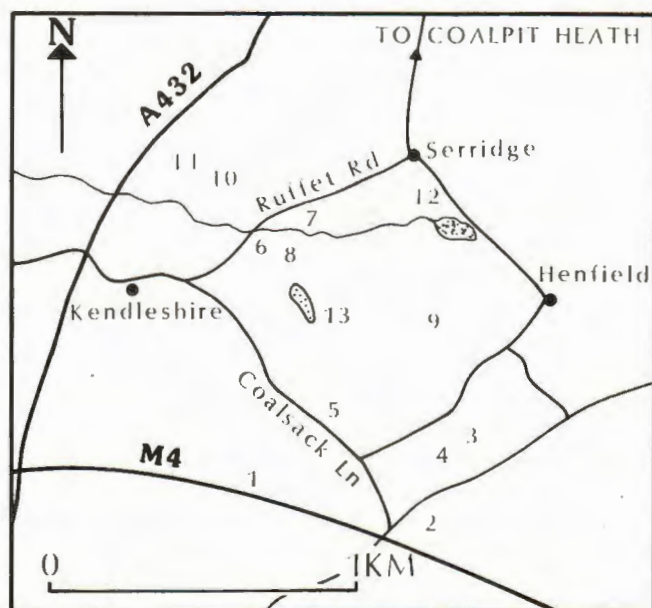


Fig. 2

1, Little Padlands. 2, Great Padlands. 3, Little Bean Leaze. 4, Cowslip Grove. 5, Great Bean Leaze, Meadow Leaze. 6, Nathaniel Friend's Wood, Great Vein. 7, Lower Westfield. 8, Nathaniel Friend's Wood, Holly Bush. 9, Haycroft. 10, 11, Water levels. 12, The Land Pit from the Engine. 13, Eighteenth-century (?) surface workings.

Little Padlands on the Great Vein at ST 671786A. Shaft 72 feet deep.
 Great Padlands on the Holly Bush Vein at ST675786. Shaft 102 feet deep.
 Little Bean Leaze, Holly Bush, ST 674787, 96 feet.
 Cowslip Grove, Hard Vein, ST 676786, 72 feet.
 Great Bean Leaze, Great Vein, ST 671789A, 96 feet.
 Meadow Leaze, Great Vein, in same general areas as preceding pit. 60 feet.
 Nathaniel Friend's Wood, Great Vein, 78 feet. ST 66887947, SMR 7303.
 Lower Westfield, Holly Bush, ST 669794, 24 feet.
 Nathaniel Friend's Wood, Holly Bush, 24 feet. ST 671792, SMR 7303.
 Haycroft, Hard Vein, ST 675792, 96 feet.

Pits in Coalpit Heath

From the vicinity of Serridge the perambulators proceeded northward through Coalpit Heath to May's Hill. In this area field boundaries have been changed by development, and the orientations in the Perambulation are very often given with reference to a named individual's dwelling house. The combination of these two factors frustrated attempts to identify precise locations, and Robert Sherman's analytical presentation by vein makes it impossible even to give a definite north-south sequence. It should also be remembered that between Ram Hill and Frog Lane much of the land to the east of Back Lane was part of the Dennys estate. There were however clearly at least five pits between Serridge and May's Hill on Astry's land in 1691. Three of these were on the Great Vein:

Roundwell Grove, 60 feet.
 Northeast of John Hampton's house, 66 feet.
 Northeast of Coalpit Heath.

The other two were on the Holly Bush:

- Upper Woodwards, 72 feet.
- Between Woodwards and Coalpit Heath, 54 feet.

Two other workings may have been east of the site of Ram Hill pit:

- East of Middleton's, Ragg Vein, 42 feet.
- Between Serridge Gate (not located) and Coalpit Heath, several pits between 48 and 72 feet.

The Perambulation of 1696 is confined to this area and lists another six pits. Three are on the Hard Vein:

- Rough Ground, 90 feet.
- Wood Riding.
- Near Serridge Gate in Coalpit Heath.

One is on the Holly Bush in Lower Westfields, and two are on the Great Vein:

- Rowlands, Coalpit Heath, 30 feet.
- North-east of John Hampton's house, 66 feet.

Pits South of May's Hill

Between May's Hill and Westerleigh the field boundaries remain largely undisturbed and it is possible to locate another eight sites with a reasonable degree of accuracy. (See Fig. 3.) The perambulators were confident that coal could be found at Longley (ST 685825), but were discouraged from working it by the high water level in this area. The following seven pits had all been worked:

- George Usher's Home Ground, Great Vein, ST 691819A, 72 feet.
- Woodleaze, Hard Vein, ST 692818, 102 feet.
- John Park's Ridings, Great Vein, south of pit in George Usher's Home Ground, 62 feet.
- Joel Maye's Ridings, Hard Vein, ST 693814, 66 feet.
- William Prigg's Dodmore, Hard Vein, ST 694813A, 24-48 feet.
- Leigh Meadow, Great Vein, ST 697812A.
- Narrow Rag, Hard Vein, ST 694810A, 60 feet.

Pits in Westerleigh

In the vicinity of Westerleigh village the same problems arise as in the Coalpit Heath area, and precise location has not been possible. However there were in 1691 four known pits, three of these on the Great Vein:

- Coalpit Meadow, 96 feet.
- Mr Grubb's Meadow, 96 feet.
- Nicholl's in Westerleigh, 84 feet.

The fourth was in Steambridge Lane on the Hard Vein, and the shaft was 72 feet deep. Two more pits were at Harespitt just south of Westerleigh village, at ST 696793A, one on the Great Vein (102 feet) and another on the Hard (48 feet). The first of these may have survived as a bucket well in the grounds of Harespitt House.

Visible Remains

At or near several of these sites there are physical remains, discovered mostly during fieldwork. The pit on the Great Vein in Nathaniel Friend's Wood corresponds to an apparent bellpit at ST 66887947, and that on the Holly Bush to less definitely formed remains of a shaft or pit at ST 671792 (SMR 7303). The bellpits at The Pines (SMR 4798) may possibly be those at Roundwell Grove, though it is impossible to be sure. The pit at ST 67738098 (SMR 4444) may correspond to one of those in the Coalpit Heath area mentioned by the perambulators. The pits near May's Hill and Nibley are in the vicinity of later workings.

THE CONSTRAINTS OF GEOLOGY

Maps showing the colliery in the nineteenth century indicate that the perambulators' pits were distributed around the periphery of the later *take* (39398 BRO). While later workings reached 800 feet below ground in some cases, the two deepest pits in 1691 were 102 feet, and the average was 63 feet. The deepest pits were on the Great and the Hard veins, averaging 67 and 62 feet respectively. The figures suggest that the accessibility of the coal varied more between veins. The ten pits in the general area of Coalpit Heath were only 60 feet deep on average, and those between May's Hill and Westerleigh were 61 feet. The ten pits between Henfield and Serridge were 72 feet deep on average, and the five pits in Westerleigh 83 feet.

Accessibility at this date was a function not only of the depth of the coal seams but of the height of the water table. The depth to which mining was feasible varied between regions, and is said to have been from 90-150 feet nationally.⁴ In Westerleigh, the cut-off point seems to have been about 100 feet, possibly less in the northern part of the parish (where there is some later evidence that drainage was difficult). Water certainly concerned the perambulators; in thirty pages there are eight references to water, five to flooding and seven to *levels*.

A *water level* is the term in use in South Gloucestershire for what elsewhere is often referred to as an adit or sough: a sloping underground tunnel constructed to drain off water from a pit or group of pits. One at least existed

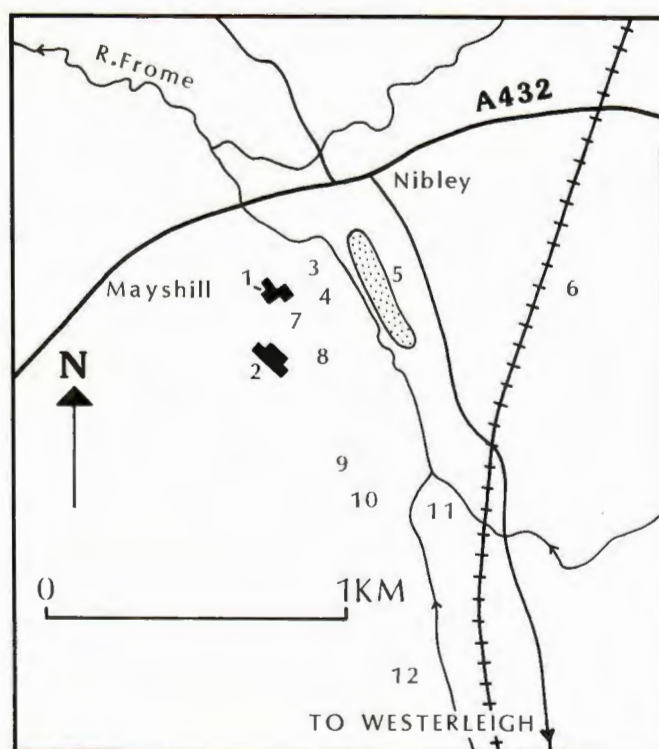


Fig. 3

1, Mayshill depot. 2, Sayscourt Farm. 3, 4, Pits. 5, Surface workings. 6, Dismantled railway. 7, George Usher's Home Ground. 8, Woodleaze. 9, Joel Maye's Ridings. 10, William Prigg's Dodmore. 11, Leigh Meadow. 12, Narrow Rag.

by the date of the Perambulations, the 'Main Level', which may have been constructed by Astry. The sites of three levels are known, two at ST 667797 and another at ST 66877962 (SMR 7322). Since new levels were constructed well into the nineteenth century and documentary evidence is lacking, no assumptions can safely be made about the date of these examples.

TECHNOLOGY

The miners of Westerleigh in the seventeenth century employed three basic techniques: pits, tips and baulks. ('The Great Veine in Great Bean lease ... There wright in Pitts, Tipps and Bulk ...' There are several other references to "Pitts and Bulk" or "Pitts and Tipps".) A *pit*, in the contemporary vernacular, is any coalwork employing a shaft. These as has been seen were shallow, and there are visible remains of bell-pits. Shafts were not lined. (This is inferred from the description of the Hard Vein at Harespitt House: ... 'Tis believed if ye blowing of Stone by Powder had not been found out, the said Pitt would never have been sunk ... it will be a Pitt for Service hereafter, for there is no fear of its falling together because it is almost Rock from the top to the Bottom.' Once a shaft had struck coal, standard practice was simply to mine along the vein. There is no evidence that underground roadways were constructed, either to simplify haulage or to provide better access for the hewers. Quite clearly veins were followed quite a distance from pit bottom, perhaps as much as two hundred yards or more. An obscure passage suggests that the seams may have been worked by pillar and stall. ('We left our deep straits there not 'rerouted but standing firm.' The expression *rerout* may refer to the practice of "stealing" from the pillars before the workings were abandoned.)

A *tip* appears from later evidence to have been an open-cast pit. A *baulk* refers to a drift mine following a sloping vein from the surface. Later sources use the word *baulk* for the sloping vein, and call the drift mine a *land pit*, land here meaning surface. The entrance to an example that was being worked in the eighteenth century, the 'Land Pit from the Engine', can be seen at ST 67467964 (SMR 3585).

There is no direct evidence of timbering, but since there are no reports of falls of either rock or coal as a hazard it is reasonable to assume that something must have been done to prop roofs. The technique of using gunpowder to blast through rock was known and admired but used sparingly.

Hauling from the pits was done with a *reel*, sometimes known in South Gloucestershire as a *reel and standers*: a form of hand-winch or windlass. It was sometimes used to haul water as well as miners and coal, and it is the collapse of one of these devices that caused the first recorded fatal industrial accident in the Westerleigh mines. (In about 1660 a man named Ashley was drowned in this way.) There is a guarded reference to the use of horse power for hauling water, which was certainly not standard practice. (This was about 1650 and the information is hearsay.) There is also an obscure reference to a *water-hallows*, resorted to in order to control flooding in one particular pit. This can only have been a mechanical pump of some sort, and was cumbersome enough to have required either packhorses or a team to bring it on site. There is no record at this date of such devices being permanently installed.

The main method of coping with water was the level, as mentioned above. These were sometimes quite local, running from one pit to a nearby one. Small levels appear

to have caused some friction. There was at least one major level, and it was for such constructions that the working miners were dependent on the landowner's willingness to invest. They seem to have lacked either the capital or the degree of collective organisation to attempt it themselves.

ECONOMIC RELATIONSHIPS

There is no evidence for the existence in Westerleigh of anything resembling *free mining*, and an eighteenth-century version of the 'Custom of the Manor' makes it clear that at this later date no common-law right to dig coal existed.⁵ It is also clear by implication from the Perambulation that while freeholders could mine coal on their own land all other persons had to negotiate with the owners. There are references to both Roberts and Astry having opened mines, but it is not clear whether they then proceeded to work them with their own hired labour or leased them out. Only Astry, at this period, is known to have built a level.

The working miners would thus have had to come to some arrangement with the lords. The Perambulation suggests, though not conclusively, that agreements may have related to a particular area, possibly only one field. It seems that the miners would have felt free to dig extra shafts if conditions dictated. Unfortunately the Perambulation does not record the financial aspect of the arrangement, presumably since it would have been a matter of common knowledge. It is likely that the lords would have collected a share of the output, based on the market value of the coal sold. This share is unlikely to have been more than 3/- in the pound. There are also hints of a quarterly ground rent but no specific sums are mentioned.

The customers for coal would have been very local. There was even then some differentiation in the market, with good quality coal being sold to smiths and small coal being got rid of to the lime-kilns. The later evidence suggests that not only mining but sales were very much reduced in winter when the water level in the pits rose and the unmade highways turned to quagmires. The high season for mining was probably from May to November.

The working miners were clearly differentiated into masters and men, like most handicraft institutions of the time. Also in conformity with contemporary patterns, there was a strong element of family connection: of the twenty-eight names given in the first perambulation, seventeen people have the same name as at least one other person and ten individuals are designated 'Elder' or 'Younger'. Some of the masters appear to have been prosperous and to have disposed of a certain amount of working capital, though sums referred to in the text should be treated with caution. They are cited to impress.

Most of the labourers involved, and no doubt some of the masters also, would have required a secondary occupation to get them through the winter months. Since the peak of the agricultural and industrial years coincided, this may have involved some people working a double day for part of the year and spending the winter months in idleness. It must have been a precarious living as well as an arduous one.

The relationship between the lords and the miners was obviously one of mutual dependence with some potential for conflict. While both sides were interested in raising as much coal as could be got economically and sold at a profit, the issue was of course how the benefits were to be distributed. What the miners wanted was capital investment to be made on their behalf, and (presumably) to be left alone as much as possible. What Astry would have needed was the highest possible return from his capital outlay and full payment of his dues from each operating pit. One imagines that to strike a satisfactory balance required good judgement and considerable negotiating skills. One

would also expect that in a relationship of mutual dependence where there is an imbalance of power, any hostility felt by the weaker party would be expressed indirectly and intermittently. This seems to have been what happened. There are reports of friction between the miners working on Astry's land and those on that of Dennys, and of conflict between individual masters. There is also an account of a miner's widow, angered by a piece of particular insensitivity on the part of one of the Roberts family, being prevented from making an attempt on his life. 'But the veine was first found by one John Simonds deceased but his wife now alive and ye work was taken from ye Said Simonds by the Said Thomas Robert's father, but ye Said Simond's wife (if she had been suffered) would have cutt the rope when the Said Thomas Robert's father was going into ye Pitt to view ye Cole therein, and for ye Joy of finding ye Cole, our Bells were caused to be rung very merrily.' Clearly the passions were there.

THE POINT OF THE PERAMBULATION

What was the Perambulation about? My guess is that it was an attempt by the Perambulators to persuade Astry that the construction of a major level was worthwhile, and by Astry to obtain detailed enough information on which to base rational investment decisions. If that really was the nature of the exchange being negotiated, then it is my further surmise that both parties were thwarted.

Some of the clues are in the second Perambulation, that of 1696. It was both less extensive and less well attended, a matter of sixteen people going round eight pits. Of these eight, three entries include references to levels. One pit is said to be unworkable unless either Mr Dennys opens his level or the Main Level is brought up from Kendalshire; in two other cases the record is insistent on the miners' having left coal they could have raised in order to leave the workings intact 'for the benefit of the Levall'. This is probably the projected Great Level, which the earlier Perambulation makes clear was supposed to drain the pits in this area. It is clear that the Great Level had not been built in 1691. Three references out of eight entries in 1696 in a repeat perambulation undertaken in exactly the area involved seems to me to be a coincidence much greater than chance: I suspect, in fact, an attempt to reawaken Astry's interest.

What about Astry? What would he stand to gain from the Perambulation? The first Perambulation was well enough supported for something to have been at issue: that, and the fact that the trouble was taken to keep a record, suggest that those involved did not believe they were wasting their time. Yet what in fact was gained? In essence, simply a record of the pits in Westerleigh.

That information, a moment's reflection will suffice to show, is in itself almost completely useless. The miners already know where the pits are. It is part of being a miner. Astry also knows where the pits are, or at least his steward does: he goes there to get the money. I find it unlikely in the extreme that twenty-eight practical people would have spent a February day tramping through the South Gloucestershire mud in order to tell each other things they already knew.

Here the clue is provided by a comparison with the 'Deposition' of 1792, also in the Ashton Court collection.⁶ Keyed by survey numbers to a map that appears no longer to exist, it records an elderly man's memories, place by place and vein by vein, of where coal has been dug and where the seams were left untouched. This is clearly a systematic attempt to find out where the deposits were: it dates from a period when the Westerleigh mines were known to be under rational and energetic management.

The difference lies in the approach used, the one

collective and traditional, the other a deliberate product - no matter how trivial the occasion - of enlightened eighteenth-century rationalism. The Perambulation of 1691 has the air of a guildsmen's outing, and informally a guild is more or less exactly what they were. Their expertise was a group process, dependent on a long socialisation and an intimate acquaintance with the locality. The 1792 document comes from a different world, one in which rational grounds for action could be expounded for discussion. I would suspect that the miners of 1691, by contrast, relied on intuition, and that they would no more have needed to discuss whether a particular coaling-ground was worth bidding for than their fellow villagers would have needed to discuss when to sow. Since intuition by its nature is not available for introspection, it would have been difficult, even if they had been willing, for the miners to give Astry what I guess he would have wanted: a coherent account of the reserves.

THE FATE OF THE INDEPENDENT MASTERS

There is no clear record that I have found of the survival of the independent miners after 1691. It is possible that they were still there in 1710, working the old pits in Coalpit Heath; by 1782 they have disappeared. (The accounts for Serridge, 1710-16, sometimes give a separate figure for 'Old Pits in Colepitt Heath'. There is not enough detail to be sure whether these pits were being worked by hired labour or not. Small pits are still being worked in 1782, but quite clearly as an integral part of the colliery.) By 1752 there is at least one Newcomen engine in Westerleigh, and there are reasons other than the advent of steam power why the master miners could not compete.

The alternatives available for the exploitation of coaling grounds were leasing to an adventurer or hiring labour to work the mines directly. The advantage of the former arrangement was that it required no more investment than working through the masters, and by substituting a lease for a series of *ad hoc* arrangements it reduced administration considerably. Several such leases for Westerleigh and Pucklechurch in the early eighteenth century survive. In some of these one of the adventurers is described as a miner while another partner is of higher social status; the one providing expertise while the other, presumably, puts up the capital. The leases make clear that it was standard practice for the owner to appoint a clerk or surface worker whose wages were to be paid by the adventurers and whose job it was to provide the owners with an account of the coal landed. This facility, a sort of check weigh system in reverse, is one which the independents simply could not have matched. (Good examples of such leases are AC/AS 62/1-2 BRO and D421/E64 GRO.)

The other alternative was to have a bailiff and work the mines directly. There is a record of such an operation being carried on at May's Hill in 1729. Here there is already considerable specialisation of trades, and mechanical pumps were installed. Coal could have been worked more deeply and more profitably, and the willingness to invest in capital equipment would have had a quasi-automatic effect on the productivity of labour. It is fairly clear that even without major changes in technology, there were social and organisational processes at work which the independents would have found it hard to resist.

Those independent masters who did not manage to become adventurers or bailiffs may have returned to the ranks of the journeymen. It is possible that the journeymen miners were no worse off economically under the newer system. What was lost irretrievably would have been the least tangible and possibly the least considered aspect of the pre-industrial process: the organisation of work as part of a traditional and collective way of life.

NOTES

1. AC/AS 73/3 BRO.
2. D421/T131 GRO, a lease of 1630, recites an earlier lease dating from the second regnal year of James I.
3. D421/T131 GRO shows clearly the right of the lord to lease coaling rights in the manor. On ms. p. 8 of the Perambulation, see under Colepitt Meadow, '... where Samuel Trewman had a work at ye same time, it being his own land'. For compensation, see in particular a lease of 1719 relating to Pucklechurch, AC/AS 62/1. I have nowhere found references to any need to secure the tenant's agreement to a mine. For details on Astry see the AC/AS catalogue, BRO, which has a helpful introduction. The May's Hill lease is D421/T131 GRO. Sir John Smyth married Elizabeth Astry, one of Sir Samuel's daughters who in 1708 inherited a one-third share of the manor. See AC/AS BRO, 'Abstract of Title of Sir John Smyth'. For the extent of the Serridge estates see D421/E64 GRO.
4. Flinn, *The History of the British Coal Industry* Vol. II, Oxford 1984.
5. The 'Custom of the Mannour' is ms. pp. 30-31, AC/AS 110 BRO.
6. 'Book of Reference to the Information of Mr John Bryant ...', AC/AS 99 BRO.

ARCHAEOLOGY IN BRISTOL 1988-89

This report summarises the work of the Field Archaeology Section of Bristol Museum and Art Gallery from January 1988 to March 1989. The work was financed principally by the City of Bristol, but MEPC should be acknowledged for their contribution to the excavations at St. Thomas Street and the Church Commissioners and Olive Property Ltd for Avon Street.

EXCAVATION

ST. THOMAS STREET, City (BRSMG Accs.No. 1/1989; ST 59197244)

Excavations were carried out from January to March 1989 at the western corner of St. Thomas Street/Portwall Lane. The work demonstrated that, although the area was enclosed within the Portwall in 1247, no structures were erected on the site until the 15th century. The earliest buildings were composed of slight stone walls and may have been connected with bronze casting, since the soil overlying the earliest floor levels contain many fragments of fired clay moulds from this process. In the early 17th century it seems the site had become an open garden area until it was again built on late in the 17th century. Large amounts of slag within the buildings showed that these too were associated with industrial activity.

Les Good

ST. JAMES PARADE, City (BRSMG Accs. No. 62/1988; ST 58957348)

A trial excavation at the Welsh Congregational Chapel, built in 1855, was carried out in 1988. The object was to test for the existence of structures or occupation associated with the 12th century Benedictine Priory of St. James founded before 1137 by Robert of Gloucester.

The present St. James church, which includes some 12th century work, is on the site of the nave of a once much larger priory church. North and south transepts, the chancel and a reputed Lady Chapel have all disappeared. Medieval features within now-demolished 18th century buildings close to the site survived until the 1960s and were almost certainly part of the priory church.

Investigation was limited mainly to three small trenches. The natural subsoil of orange-red sand with nodules of red sandstone was encountered c.1 m below the modern ground surface but sloping markedly away southwards. Over the natural subsoil was a layer of fine reddish brown sand, very similar to the natural subsoil but with inclusions of limestone. The source of this layer is uncertain, but it may represent hill-wash or possible dumped levelling material. It was excavated in only one

trench and produced few finds, but these suggested that it had been deposited in the late medieval period, perhaps in the 14th or 15th century.

Cutting into this layer was a ditch aligned east-west, possibly a drainage or boundary ditch. It was backfilled during or after the middle of the 17th century. It was probably cut during the existence of the priory, although late in its life.

In all three trenches, over the ditch and all the other layers described was a layer of reddish brown sand with limestone fragments and charcoal, possibly representing levelling material or natural accumulation after disuse of the priory.

Above was a series of drains contemporary with 18th century properties alongside St. James Parade. These were sealed by the construction material of the 19th century chapel.

On the basis of the evaluation, it is hoped to carry out further excavation in advance of proposed redevelopment of the site by the National Farmers' Union Mutual Society Ltd to whom we are grateful for permission to excavate.

(Bob Jones)

AVON STREET, St. Philips (BRSMG Accs.No. 70/1988; ST 597727)

A large scale excavation on a site known to be used for glass-working disclosed the remains of two factories. The furnace of the Hoopers' and Soapboilers' glass cones were located although little trace of the cones had survived. On the Soapboilers' site, lately the works of Powell and Ricketts, a series of three or four adjoining annealing ovens, an annealing arch and associated rooms were found. The structures were rebuilt often, particularly during the 19th century, and were adaptations of the Siemens furnace which makes economical use of the hot air required to produce glass. Quantities of stamped bricks, glass bottle waste, pots (crucibles), plaster moulds and cullet were removed.

(Bruce Williams)

ST. JOHN'S STREET/SHEENE ROAD, Bedminster (BRSMG : Accs.No.50/1988; ST 58387139)

Two trial trenches were excavated to see if there was any trace of occupation associated with the pre-conquest settlement and St. John's Church, Bedminster. A slot cut into the natural sandstone may have been part of a late 11th or early 12th century timber building. Other features included a number of shallow pits, possibly dug for sand. For the St. John's graveyard survey, see Dawson. 1979.

(Bruce Williams)

WATCHING BRIEFS:

TRINITY STREET, City. (BRSMG : Accs. No. 67/1988; ST 58417267)

1) A watching brief was undertaken during excavations for a pipe-trench along Trinity Street to the east of Bristol Cathedral.

There were no features recorded along the north end of Trinity Street beneath the Victorian cobble-stones. The upper natural Keuper Marl was recorded at 1.20 m below the cobbles sealed beneath a mixed make-up deposit of grey-black ash, reddish-brown sandy soil, buff mortar and pennant sandstone. The Keuper Marl overlay Dolomitic Conglomerate and Brandon Hill Grit which varied in depth between 1.50 and 2.00 m. The south extension of Trinity Street was a pedestrianised way which descended c.7.0. m through five sets of steps down to Anchor Road and was constructed early in this century. Trinity Street originally continued east towards The Butts (Anchor Road) and the Floating Harbour. The original Trinity Street dates back to the early 18th century when the road to The Butts was heavily built-up on both sides with Georgian terraced town houses (Gomme, Jenner and Little, 1979, 103, and Winstone, 1983, 217), and indicated on Plumley and Ashmead's map of 1828. The buildings to the south were destroyed c.1925 when a large brick warehouse was constructed and Trinity Street, at its west end, was joined to Anchor Road, to the west of the Cathedral School.

The pipe-trench was located 3.30 m to the east of the school boundary wall. The upper deposits consisted of c.2.0 m of the 18th-19th century demolition rubble overlying natural. However, the remains of at least six walls on east-west alignment were cut by the trench. They included part of the frontage of the west end of the Georgian terrace on the south side of Trinity Street. An entrance, 1.0 m wide, opened on to six ascending steps leading to a cellar. Later walls further south probably represent the Drill Hall associated with the Engineer Volunteers Headquarters described in Wright and Co's Bristol and Clifton Directory for 1885 and also shown on the O.S. map of 1885. The 18th-century frontage walls and entrance were 1.20 m below Trinity Street pavement level at c.15.06 m OD.

The finds were unstratified, but included animal bone, oyster shell, clay pipes and a complete 18th century glass phial. Medieval pottery sherds of Ham Green and Redcliffe ware and Redcliffe roof-tile were also found. (Eric Boore)

2) BRISTOL CATHEDRAL, City. (ST 58417269)

A trial trench was excavated on behalf of Sir Robert McAlpine Management Contractors Limited along the external east face of the Eastern Lady Chapel of Bristol Cathedral to examine the foundations. The work was recorded by E.J. Boore and B. Williams and the site visited by Dr. W. Rodwell, Consultant Archaeologist for the Cathedral.

The trench extended north from the south buttress for 2.70 m and was 0.80m wide. A second trench, 1.20 m wide, was excavated along the north face of the south buttress for 2.35 m to the east. The area between the eastern Lady Chapel east wall and the north and south buttresses was enclosed by a modern boundary wall. The ground level was covered with flagstones of Pennant Sandstone. They were bedded in a pale brown mortar which overlay a make-up deposit of black mortar and black ashy soil to a depth of 0.35 m. This deposit overlay the upper natural of dark red sandy clay which continued to the Brandon Hill Grit bedrock.

The foundations below the Lady Chapel east wall and the south buttress were both constructed of roughly-dressed blocks of Brandon Hill Grit with some Pennant Sandstone. The upper courses below the Lady Chapel plinth course were particularly massive and offset c.0.14 m to the east and a further offset for a depth of 2.37 m. The buttress foundations were offset 0.40 m to the north and were recorded for a depth of 2.50 m. Both foundations were bonded with a reddish-orange sandy mortar and were of a single phase construction. They were contemporary with the early 14th century Eastern Lady Chapel constructed as part of the rebuilding work at St. Augustine's Abbey undertaken by Abbot Knowle (d 1332). There were no finds apart from a single human femur. (Eric Boore, Bruce Williams)

ST. AUGUSTINE THE LESS, Deanery Road, City. (BRSMG : Accs. No. 25/1983; ST. 58497273)

1) A watching-brief was carried out on the site of the former church of St. Augustine the Less (Boore, 1986).

The remaining foundations of the church were removed and the whole site reduced by c.3.0 m to 13.50 OD revealing the Keuper Marl and Dolomitic Conglomerate natural. A pentagonal septic tank, 3 m x 2 m, was found near the south-east corner of the church and was contemporary with the Victorian vestry. Further rectangular (c.6) and coffin-shaped (c.2) brick-lined grave shafts were recorded in the south-west and north-east corners of the churchyard along with other brick walls suggesting more on the north side. These are all dated to the 18th and 19th centuries. The depth of soil in the churchyard to the south, although disturbed, was 2.10 m to natural. This area contained some disarticulated human remains.

A substantial right-angled revetment wall was recorded in the south-east corner of the site. The wall was constructed of Pennant Sandstone and Brandon Hill Grit bonded in a hard reddish-brown mortar. It survived for a height of 2.60 m and was stepped twice with projecting off-set foundations on its north and west faces. It probably represents a combined revetment for the natural cliff edge to the south-east and foundations for domestic buildings of the 18th century. Behind the late 19th century south churchyard wall were found the stubs of three walls aligned north-south. They are the truncated remains of 18th- and 19th-century property boundaries from the early 18th-century terrace which fronted Trinity Street, on the south. The only find was an unstratified fragment of Norwegian schist whetstone. (Eric Boore)

2) An intact lead coffin was found by the developer Sir Robert McAlpine Management Contractors Limited on the site of the church. Prior to reinterment at South Bristol Cemetery, the coffin and its location were recorded.

The coffin was discovered during demolition of the eastern boundary wall of the churchyard. It appeared to lie, head to the west, in an earth-cut grave as there were no indications of either a vault or brick-lined shaft structure. The depth at which the coffin was found was over 1.0 m into natural. This suggests that it was not in situ, allowing for a further c.2.0. m of accumulated churchyard soil above the bedrock. The coffin may have been found after the grave clearance in 1892 had been completed when the south-east corner of the churchyard was removed to make way for Anchor Road to the south and east. It might then have been reburied when the latest eastern boundary wall was constructed.

The coffin measured 2.04 x 0.66 x 0.45 m and en-

closed an intact wooden coffin which appeared to be made of elm, exposed when the upper half of the lead lid was accidentally removed on discovery during machining operations. The outer lead coffin was decorated by subdivision into panels, three on each side, and 2/3 on the lid. The internal raised borders of each panel contained a simple scroll moulding. A single lozenge-shaped grip-plate with an iron bail grip had survived fixed to the upper side panel of the lead coffin. Two fixing holes, centrally positioned and spaced 0.12 m apart, were recorded in the other side panels and also on each end. The detached and damaged lid contained a lead shield breast-plate which measured 0.28 x 0.38 m. The breast-plate contained in relief, in capital letters the epitaph T.T. with the date 1818 below. This double-shell burial is similar to others found at the Barnardiston vaults at Kedington church, Suffolk (W.H.B., 1916, 44-47, and Litten, 1985).

The Register of Burials for the parish of St. Augustine the Less for 1813-1826 have an entry for a Thomas Thirkall from Bitton who was buried in 1818, the ceremony performed by the incumbent, Dr. Luke Heslop (Bristol Record Office, P/St.Aug/R/2(c)). The trade directories before and including the year 1818 list a Thomas Thirkill, Plumber and Water closet maker, at 26 College Street in St. Augustine's parish (Mathew's Directory, 1818, 145). In 1819 the business is listed as Thirkill and Pomeroy at the same address and whom continue to trade until 1823. In that year a J.M.W. Thirkill is listed as a plumber at Limekiln Dock while G. Pomeroy continues alone at College Street, J.M.W. Thirkill was presumably the son of Thomas and he may well have made the coffin.

The manufacture of lead coffins was carried out by plumbers and probably provided a considerable income particularly in the 18th and early 19th centuries when vault and brick-lined shaft burials were at their most popular (Litten, op.cit.). It would therefore seem only fitting for someone who had doubtless produced many lead coffins, both for double and triple-shell burials, probably for interment at St. Augustine the Less, intramural or churchyard, for himself to be laid to rest in a manner with which he was only too familiar. It may also explain the lack of an outer wooden shell, the decorative elements of the lead coffin and the associated coffin-furniture. This may represent more an expression of pride in their workmanship than advertising to the last!

(Eric Boore, John Bryant)

3) DEANERY ROAD, Bristol. (ST 58467274)

The remains of two inhumations were recorded in a trench excavated by the Water Board in Deanery Road, College Green. The trench measured 1.50 x 0.75 x 0.60 m and was located 4.40 m to the west of the north-east corner of the Royal Hotel.

The disarticulated remains consisted of 2 skulls and other disturbed bones. They were sealed by the modern make-up for the road and were in a layer of dark red sand and Keuper Marl representing redeposited natural. There was no dating evidence for the skeletal remains which would have come from the former churchyard of St. Augustine the Less.

The western churchyard was destroyed in the early 18th century when the Georgian terrace was constructed and again in 1868 when the east end of the terrace was replaced by the present Royal Hotel buildings. The north and western extent of the churchyard was further reduced in 1894 as a result of road widening at the east end of College Green (E.J. Boore, 1985).

(Eric Boore)

ST. NICHOLAS CHURCH (ST 5894 7294)

Partial re-flooring of the lower church in the course of carrying out damp-reduction works, resulted in the discovery of six 18th- or 19th-century brick burial chambers, plus portions of gravestones. A number of medieval and later features were recorded in the east end of the south wall. Recording continued alongside restoration work. The north, south and east walls were drawn following the removal of modern rendering. A complex series of openings at the east end of the south wall included evidence of a former extension, perhaps a side chapel.

(John Bryant)

BITTON, Avon. (BRSMG : 6820 6933)

A survey of the Creswicke family vault in St. Mary's church, Bitton, was conducted as part of the faculty granted to the parochial church council to repair the floor of the aisle.

The vault entrance was discovered below the central aisle 13.25 m to the west of the chancel arch. Investigation of an uneven floor had led to its discovery and a survey was undertaken prior to repairing the floor and sealing the vault. The survey was carried out with the kind permission of the incumbent, Canon G. Mitchell, and the helpful assistance of the churchwardens, Mr. C. Richards and Mr. J. Bennett. The vault was initially identified from two Creswicke family ledger stones to the east of the vault entrance and a wall tablet on the south nave wall.

The vault entrance was capped with large slabs of Pennant Sandstone, 0.40 m below the present-day church floor. The entrance contained 5 steps made of Pennant Sandstone, 1.08 x 0.30 m, between walls of white lias. The steps descended 1.20 m and led into the north-west corner of the burial vault. They stopped at a height of 0.55 m above the vault floor while the entrance roof projected into the barrel-vaulted roof in an arch constructed with ashlar oolitic limestone. The rectangular vault, aligned north-south, measured 4.15 x 2.50 x 1.84 m and both walls and roof were constructed of white and blue lias with some oolite. The floor was covered with Pennant Sandstone flagstones.

An extended adult burial with head to the west and partly covered with decayed wooden coffin remains, was found against the north wall near the entrance. The whole of the vault floor was covered with a granular deposit of decayed wooden coffin. South of the entrance an adult lead coffin lay on its side. The lid was decorated with a diaper pattern. Four more adult lead coffins occupied the southern half of the vault with their heads to the west. Three coffins lay on the vault floor, the middle coffin partly on its side, while the fourth lay askew on top of the others. This coffin was also decorated with diaper pattern on one of its upper sides. The positions of the lead coffins suggest that they had originally been stacked and had subsequently collapsed northwards. All the lead coffins were intact except one which had burst at a corner from the weight of the one above and perhaps as a result of the stack collapsing.

The four coffins were surrounded by the remains of their outer wooden shells. These interments were originally triple-shell burials, that is 'lead-lapped, inner wooden shell with an outer wooden case.' The outer cases were originally covered with velvet, probably red in colour, which was attached by the use of upholstery pins and the associated coffin-furniture consisting of grips and grip-plates. The coffins were surrounded by pins, decorated grips and grip-plates, one of which was gilded. The remains of the lid of one outer case had partially survived in situ

and still contained upholstery pins and fragments of velvet. Four breast-plates were recorded, one possibly in situ. The breast-plates all contained inscriptions for members of the Creswicke family. The earliest was dated to 1799 and the latest to 1834.

In the south-east corner of the vault there was a carefully stacked charnel group containing many long bones from adult skeletons and including at least six skulls. The charnel probably consists of the earliest burials, from single shell wooden coffins placed into the vault, which were displaced to make way for the triple-shell burials. The charnel may represent the remains of the Creswicks mentioned on the ledger stones near the vault entrance including Francis Creswicke (d 1732).

The Creswicke vault was recorded with a minimum amount of disturbance to the burials and nothing was removed from the vault.

(Eric Boore)

SURVEYS OF BUILDINGS

THE STAG AND HOUNDS, Old Market Street (ST 5960 7311)

Recording took place before and during renovation of the public house. Various 17th-century features were recorded. Part of the cellar was found to be medieval.

(John Bryant)

67 ST. MICHAEL'S HILL (ST 5842 7343)

This 18th century house was recorded in brief.

(John Bryant)

37 GROVE ROAD, Coombe Dingle (ST 5556 7756)

Prior to demolition, this 19th-century cottage was recorded.

(John Bryant)

GREYHOUND HOTEL Broadmead. (ST 5911 7330)

Rear extensions of the 19th century were briefly recorded prior to demolition.

(John Bryant)

24 and 25 BROAD STREET. (ST 5877 7311)

A two-storey medieval building was recorded at no. 24 during extensive renovation. Part of a contemporary roof survived. A later chimney breast contained two 17th-century fireplaces. At no. 25, a second structure, possibly a first-floor hall, was partly recorded. A 15th-century three-light window survived.

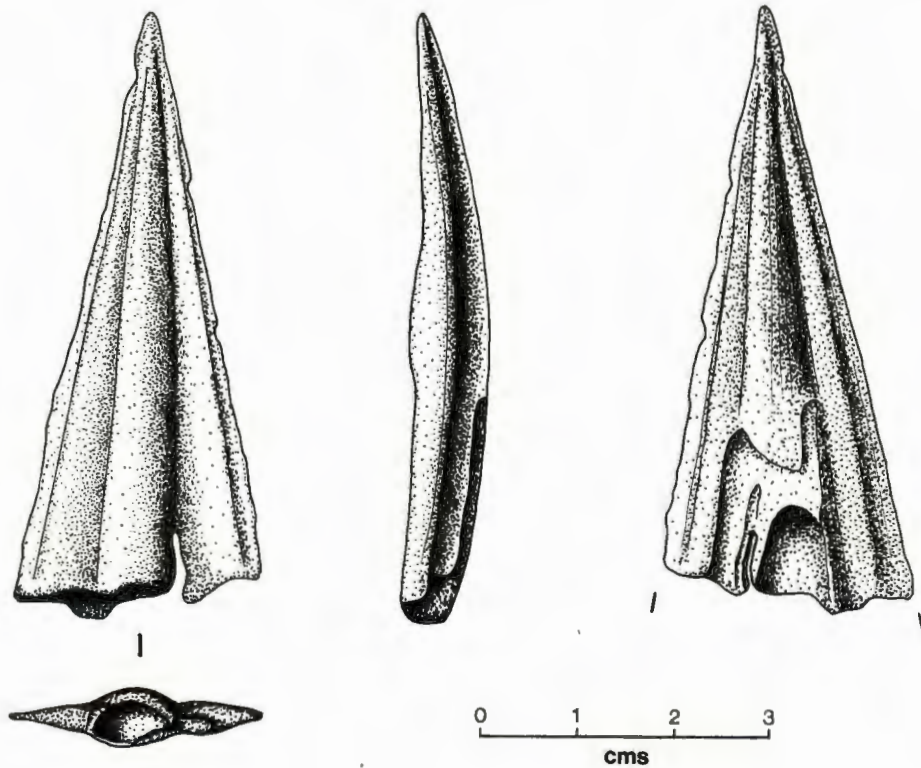
(John Bryant)

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A BRONZE AGE SPEARHEAD FRAGMENT
FROM LANSDOWN, BATH

Stephen Bird



A fragment of a socketed bronze spearhead has been found by Mr Ivor Ridewood using a metal detector on the north-western extremity of the Lansdown plateau (NGR ST 720 702). The ground here has been much disturbed in the last hundred years which, with the means of discovery, makes an exact provenance uncertain. The land lies adjacent to the accepted line of the Jurassic Way (Grimes 1951 p.152) and on its western side. Other documented finds of Bronze Age metalwork from the Lansdown plateau consist of the gold-covered 'sun-disc' from a round barrow (Martin 1906 p.9-12), a flat axe (Pearce 1983 p.520) and a 'hog's back' blade (Dobson 1931 p.83).

The fragment (c.53x25mm) is the tip of a socketed spearhead whose hollow midrib terminated slightly off-centre 43mm from the point and 10mm above the break. Cracks or breaks in similar positions on several socketed spearheads in the hoard from Blackmoor, Hampshire (Colquhoun 1979 p.99-115) suggest that the head of the socket may have been a weak point in the casting. As the tip itself is bent, it is likely that the spearhead was broken and discarded in antiquity.

Insufficient survives to be certain of the spearhead's original form although the surviving portion of the midrib

indicates a circular section to it further down the blade. The hint of a channel adjacent to the midrib on one side has been caused by damage and corrosion and the better preserved section on the other side shows a uniformly stepped blade. Straight edges on the fragment that survives may indicate a triangular rather than leaf-shaped blade, perhaps dating to the Penard Phase of metalworking c1100-850BC).

The fragment has been retained by the finder.

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LOOKING FOR HISTORY IN THE MUD

Ken Stuckey

(Additional notes by Jane Evans, Woodspring Museum)

The possibility of the Severn Barrage scheme coming into being has brought forward a lot of research on what would happen to the mudflats on both sides of the Bristol Channel, which would probably become covered by a much heavier deposit of mud than at present and so hide evidence of the fishing which has taken place for many hundreds of years. In addition the smaller variation in the tidal regime with spring low tides not reaching as low as now, will mean that accessibility to the foreshore will be much more limited.

My interests lie along the coastline at Kingston Seymour and two years ago I received a query about fishing stakes which might be out on the mudflats here. Apparently someone walking on the flats at low tide at Burnham had found a row of stakes just protruding above the mud and had made enquiries to Jane Evans, Curator at Woodspring Museum. This had prompted her to ask me if there were any at Kingston.

Walking out on the mud here is not my idea of a bit of fun and I have never ventured out very far from the coastline, so with a friend who had previously done some fishing, we went out to have a look. As we walked out we noticed a lot of stakes driven in to hold up or perhaps I should say, peg down trammel nets. These would have been used in recent years. Others not so high were square timbers with a hole at the top. The condition of the wood, identified as Spruce by G.C. Morgan, again suggested a recent date. The stakes that we were looking for, lay further out from the coastline which a hundred or more years ago had extended much further out and in recent years had been fast eroded by the sea.

Moving further out we came upon several long lines of stakes standing out of the mud about half a metre in height and about 5 m apart. Formerly there would have been taller stakes to hold up the tops of trammel or hang nets. The nets would also have been secured at the bottom to the existing stakes.

The longest run of stakes that we noticed was about 70 m in length and placed at an angle to trap the fish as the tide was running out (*Fig. 1.1*). These nets would have been used by professional fishermen and the fish caught would have included codling, mullet, plaice etc.

Close by we came upon a very unusual structure. It was in the shape of a letter U, 2.5 m in length and 1.5 m between the two points (*Fig. 1.2*). It was made up of short stakes the thickness of a broom handle protruding about 0.15 m out of the mud and the same distance apart. They were interwoven with withy of the type used for basket making. One difference to the other traps was that the open end faced towards the sea. There did not seem to be any more stakes associated with it and its purpose was a mystery.

Further visits were made to the site with Jane Evans and Alec Coles of the Woodspring Museum and the following summer with Rob Iles and Richard McDonnell.

During these visits we came upon more interesting finds. These were even further from the coastline, and consisted of smaller and shorter stakes, but in the same formation and set at the same angle as the larger ones, and generally not more than 20 cm high (*fig 1.3*). In the middle of the two lines of stakes were more set in the mud in various positions and lying between them were broken

pieces of woven withies about the size of basket work. There must have been small mesh nets on taller stakes to funnel the fish in but there are none in view. Lying nearby on the mud beside two of the traps are two much more complete woven objects. They look like a human being as sketched by a child and most likely were part of the traps.

I feel sure that they were the sort of traps used to catch sprats or shrimps but more likely sprats for they would be a more practical buy for the large family of the last century.

I do know that a fisherman called Stuckey worked there for many years and was listed as such in the 1871 census. Old people could recall him driving through Yatton with his horse and cart loaded up with his scales and a quantity of sprats which he would be selling at a penny or two a pound. There would have been a good demand for fish in the inland villages of Yatton, Congresbury and Wrington.

Two attempts were made to catch fish here during this century, one in the twenties and the other before World War II but neither effort lasted very long. These fishermen had all lived at some time in a nearby cottage which was built in 1780, this could have been intended for fishermen or may have been a herdsman's cottage.

This brings me to an interesting part of my research, for a few years ago I was looking through some old deeds of property in the area and I found a Bill of Sale dated 1801. Lot 3 was a meadow called The Withey Bed Close, 2½ acres (*fig 1.4*). No doubt withies had been grown there at a much earlier date to supply fishermen on both sides of the Bristol Channel for there were strong connections with South Wales. Lot 4 was a cottage and garden (*fig 1.5*). This was nearby. Lot 8 was a cottage and garden, with a small withy bed (*fig. 1.6*). This was built in 1780 and lived in by the fishermen mentioned. Lot 9 were Manorial rights to one third of the Manor of Kingston Seymour with fishing rights and also a fishery.

This requires more research and could reveal some interesting information.

FORESHORE FISHING IN THE SEVERN ESTUARY

(A note by Jane Evans)

Research into evidence for fishing in this part of the Severn Estuary has been neglected and Ken Stuckey's initiative in this difficult area is welcomed.

Recent studies have given a good deal of attention to fish-weirs in rivers, including the River Severn (Pannett 1981 and 1987-8) where they were normally made of stakes and wattling with basket work traps in their funnels. Important in medieval times, their use dwindled in the face of increasing river transport and as fishing laws for salmon became more strict.

Coastal fish weirs described by F.M. Davis (1958) as very common built of stone and stakes or hedging and 'each one being anything up to 400 yards in length' would obviously be very suitable in the Severn Estuary with its great rise and fall of tide. Jenkins (1974) cites many examples off the Welsh coast, particularly in Swansea

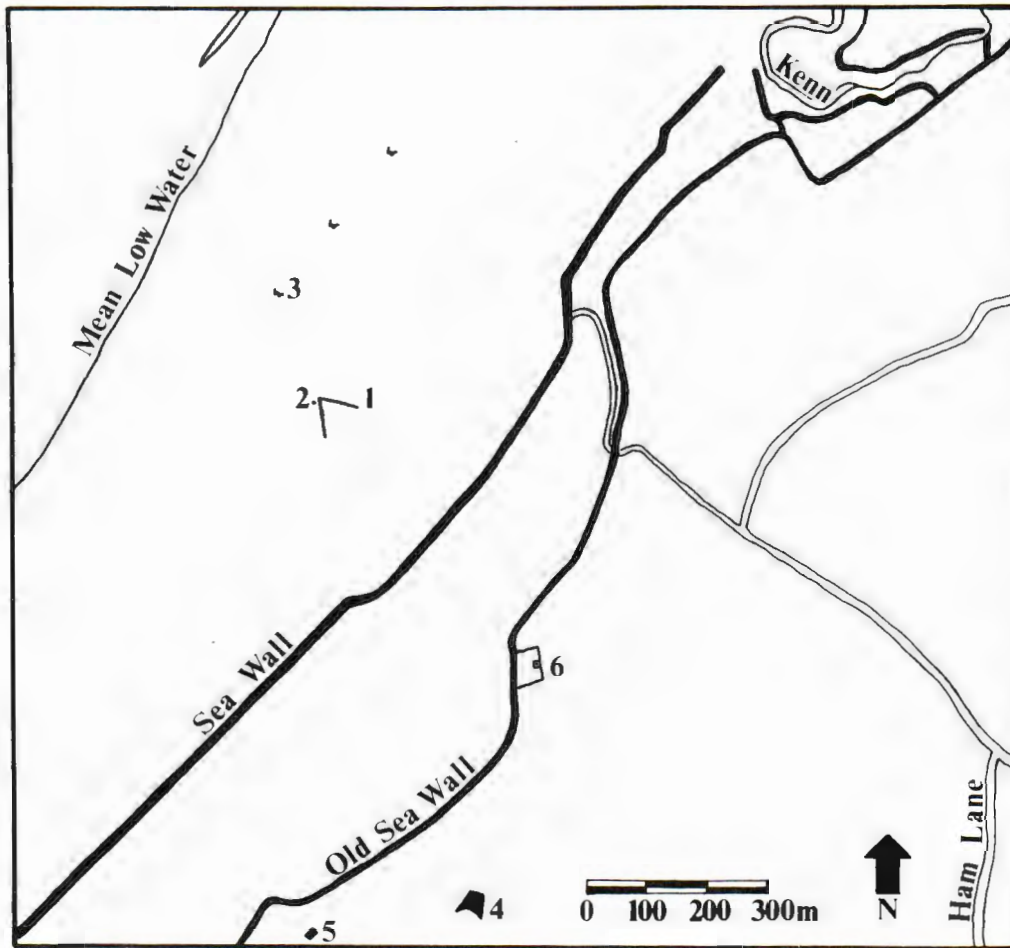


Figure 1. Approximate locations of stake features off Kingston Seymour.



Photograph 1. U-shaped feature (fig 1.2). In top left corner part of the large V-shaped feature (fig 1.1). View is to landward.

Bay. The nets and traps of various sorts fastened to stakes, called 'fixed engines', were set by fishermen on foot on the shore at low tide, and the fish brought to them by the tide. A very long wattled fish weir is still in use up river from the Severn Bridge (pers comm C.R. Salisbury).

Off the West Somerset coast, numerous tidal fish weirs, consisting of two lengths of boulder walling converging at a right-angle on the seaward side have been plotted from air photographs (McDonnell 1980).

At the Birnbeck fishery in Weston Bay, known from as early as 1492, there were 198 fishing stalls in 1882, with only a handful still in use today. A 'stall' was the name given to the pair of stakes supporting the 'stow net' with its mouth $3\frac{1}{2}$ to $5\frac{1}{2}$ m square and a bag nearly 10m long; a row of stow nets was called a 'hang', hence the nets are also called 'hang-nets'. W. Baker wrote in 1851

By the middle of the nineteenth century the sprat had become the most valuable fishery on the Somerset coast. As much as a ton of sprats was known to have been retailed in Taunton market in one day, and from information collected with great care, I learn that the sprat fishery from the west end of the Gore Sand in Bridgwater Bay to Weston-super-Mare will produce in a good season (Oct - March) more than £10,000 at the retail prices. Sprats strung and suspended in lines from the kitchen ceilings are to be seen in the cottages for months after the season is over. The sprat and herring fishery of Weston-super-Mare supported great numbers of the poor in the time of its greatest activity.

The stow net fishery began to decline when swing nets were introduced about 1880. Nowadays, trammel fishing from small boats is also operated.

Wall or stake nets, called 'kettle nets' in some areas were also frequent on Weston's mud-flats west of Knightstone in the first half of the 19th century. In these a semi-circular row of stakes was driven into the mud with the convexity of the row facing seawards. Matthews (1934) describing these, wrote

A somewhat similar contrivance, consisting of a V-shaped wall of wire netting supported on stakes, is used by the Gloucester pilots on the mud flats near their moorings at Portishead, to catch flounders and other flatfish for their own use. Collinson says that in 1791 flatfish and shrimps were caught on the shore at Portishead, evidently in some similar gear. Similar fish weirs have been used at New Passage and in Woodspring Bay.

Apart from 'Wessun sprats', shrimps used to be a great speciality of the area. Shrimp nets were similar in shape to stow nets but the tail end had an extra piece of net forming a funnel and the tail was fastened to a third stake, to hold it clear of the ground. Shrimps are still caught in these nets at Birnbeck. A shrimp fishery at St Thomas' Head was in use in 1934, worked by a fisherman who used the Middle Hope stow net fishery for sprats. He boiled up the shrimps in the small building whose ruins can be seen at ST 336 664.

Matthews goes on to say that

A few shrimp nets are worked occasionally on the mud flats between Woodspring Bay and Clevedon, but the softness of the mud makes access to them very difficult. The fishery here appears to have been more extensive in former times. During the Great War a Clevedon fisherman worked a shrimp fishery on these mud flats. Orthodox shrimp nets were not used, but a kind of fish weir was constructed of stakes with fine meshed wire netting fixed to them. Large quantities of shrimps and flatfish were taken.

To carry the catch from the nets in Woodspring Bay, a mud sled was used, made by Alf Payne and now on display in Woodspring Museum. This is a simpler version than the 'mud-horses' used by the fishermen to skim over the mud of Bridgwater Bay, as described by Brown (1980). Mud sleds were also used in Cardiff Bay (Matheson 1929).

Fishing, once so rich, has undoubtedly been carried out all along the coast of Avon from prehistoric times onwards and especially in Medieval times. A problem to consider further is whether any of the evidence so far noted in the field could be of medieval or earlier date. Finds off the coast of Gwent (pers comm Deryk Upton) certainly seem to include the earlier evidence on the other side of the Estuary.

Research is hampered as the history of the coastline and seawall is not yet fully understood, nor is the nature of mud deposition in the Severn Estuary. Seasonal variations, as winter storms clear mud which then returns in the summer, makes essential field work difficult.

More documentary research and an exchange of information with the Severn Estuary Levels Research Group may provide some answers as to date.

As for the loss of the fish, the problem here is one for environmentalists, and for archaeologists of the future.

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BOOK REVIEW

UNDERNEATH ENGLISH TOWNS

by M. Carver, Batsford 1987.

ISBN 0.7134-3638-7 160 pp, 97 illustr. £12.95

Carver's is a book in the vein of Wheeler's dictum that archaeology is about people; it is in utter contrast to heavy jargon-laden tomes concerned with pre-sterilised data and dehumanised general laws. Yet it is not lacking its own big ideas, such as the asides on the transition from feudalism ('one of the most interesting episodes of human behaviour') and at a general level with 'the human condition'. It is written by someone who entered the profession of archaeology late, who contributed to the subject without undergoing arcane initiation; he takes his stand on his own enthusiasm and a commonsense understanding of the world as we experience it now and with which he sees a continuum into the past.

Carver is interested in the individual, whether in the vagaries of a particular Roman town or of a single person (the 'precious' 'fugitive nuance' of 'the colour of a girl's hair'). His confidence in generalisation makes this possible, so that he is able to convey successfully both 'the spirit of the age' (like the contrast between Roman and Anglo-Saxon mores) and also, more importantly, a sense of process.

Journeying is prominent in this pre-eminently active book. The reader time-travels chapter by chapter, as has the archaeologist already in 'contacting' his data on exploratory expeditions. A storyline is maintained throughout, sustained by verbs of action and startling analogies taken from the contemporary life (pottery studies can never seem so dull again having made visible otherwise unseen arteries 'like a barium meal'). Carver's arresting

style is complementary to the underlying ideas so that he interests and impels his reader by constantly keeping them in contact with the world of today, by evoking everyday experiences like the glimpse of a skyline (the archetypal image of that most overgrown of towns, New York), by presenting deliberately-catchy Michelin-type tables of town attributes, all the time writing with the emotional understanding of an admirer of urban living.

Such a storyline is both necessary and possible because of the importance Carver attributes to sequence in the archaeological record; this itself is made possible by the mountain of evidence on just this theme accumulated from the vast number of excavations of the last 25 years. The main part of the book is a chronological overview (neglecting however pre-Roman beginnings), which at the same time skilfully conveys how the data was amassed as well as the existence of controversial interpretations. A ready flow is maintained by assigning generalised but adequate references to a gazeteer. As a result, however, the last two chapters on practitioners and methodology read like sections from different books.

The very considerable achievement of *Underneath English Towns* is not only to have brought order to an unruly welter of disparate data, much of it unpublished at the time of writing, but also to provide an archaeological perspective on urban process that is different from an understanding based only on documents. He should also have successfully wooed a non-professional audience, making the past accessible to anyone inclined to be interested given the right openings. Carver leaves us eager for future instalments in a story that is far from finished.

Lorna Watts

OBITUARY

W.J. WEDLAKE 1904-1989

On Monday, 17th July, W.J. (Bill) Wedlake M.A., F.S.A. died peacefully, after a gradual illness. His death severs one of the last links between the late Sir Mortimer Wheeler and the present generation of archaeologists, who excavate with greater science and precision and with more detailed results, thanks to Wheeler's pioneer work; but without the panache and certainly not the public impact of that great leader.

Bill was Wheeler's trusty, really indispensable foreman, his right-hand man at the heart of his fieldwork. Without him Wheeler became increasingly unwilling to excavate in this country, once he had uncovered Wedlake's unique value at Maiden Castle (Dorset). When it was decided to mark the Festival of Britain archaeologically by inviting Wheeler to excavate a site of his choice in this country, the choice fell upon those massive and challenging earthworks surrounding the village of Stanwick in north Yorkshire: and Wheeler's chief condition was that the Admiralty

release Bill Wedlake for the duration of the work. Which, fortunately for him and for the archaeology of the iron age in Britain, they did. This was clearly acknowledged in Wheeler's foreword to the published report of the excavation, which followed with his exemplary speed. And there too, in a passage describing the extraordinary discovery of a Brigantian sword still in its bronze-bound ash scabbard, he recorded that it was Bill whom he summoned to uncover the unique find before it was moved to the British Museum for treatment. And when, shortly before the outbreak of war in 1939, Wheeler led his colourful (and highly skilled) entourage to northern France to try - for the first time - to make sense of the iron age hillforts there, especially their connections with Maiden Castle and the north of England, Wedlake had to accompany them, this time to take charge of a French labour force. One would have loved to hear and see how Bill coped, in what must have been a strange en-

vironment. His only tie with home was the magnitude of the Gaulish earthworks there, which on the surface did not differ greatly from those he knew and understood so well just across the Channel.

Born at Camerton, Somerset, in 1904, William James Wedlake made himself into an archaeologist and historian, for family circumstances resulting from the First World War forced him to leave school at the age of thirteen to work on Camerton Farm. However, this change was to stand him in good stead. Camerton was an archaeological site of the greatest local importance, preserving as it did traces of pre-history and early Christian occupation spanning more than three millennia. From 1926, on and off for some thirty years, Wedlake was to devote his skills as excavator, historian, organiser and inspiring leader to its gradual uncovering and interpretation: and to a major publication of what he and the Camerton Excavation Club had found in 1958.

Nothing if not a great and generous raconteur, Bill was the first to relate his indebtedness to a handful of established Somerset antiquaries of note who had spotted the outstanding promise of this country lad. Possibly the most important of these was Father (Abbot) Ethelbert Horne O.S.B., of Downside Abbey, who became his life-long friend. With him, too, was Dr Arthur Bulleid, discoverer and excavator of the so-called Somerset Lake Villages; and Harold St. George Gray (who had learned *his* archaeological craft from General Pitt-Rivers). And, not least, W.E.V. Young, with background not unlike Wedlake's, who was for Alexander Kieller at Avebury what Bill Wedlake became for Wheeler. All these prescient people encouraged Bill, taught him, gave him confidence and the start in archaeological life which his spirit craved. Through Abbot Horne and Dr Bulleid he joined the excavators at Glastonbury Abbey. He helped Horne at the beginning of work at Camerton, where the Saxon cemetery was uncovered. Then to Meare Lake Village with Bulleid and numerous Somerset sites with St. George Gray. It was but a step - a word from one of these influential people - and Wedlake had been introduced to Wheeler and made his foreman for the lengthy work about to begin at Maiden Castle.

The published facts of that epoqe-making research excavation have been available since 1943. What is less well-known, what came from Wedlake himself over a glass or two of an evening, was his account of the work he and the labourers used to do at Maiden Castle after each summer season had finished: work during which Bill sought regular direction from the London-based great man via a public

telephone in the Antelope Hotel at Dorchester, where Bill stayed.

After the war, despite his full-time career in the Admiralty at Bath, work begun in 1940 and ending with his retirement in 1972, Wedlake pursued his archaeological research in and around his beloved Camerton with undiminished zeal and increasingly valuable results. He founded the Camerton Excavation Club in 1947, partly as a means of furthering and publishing the results of excavation and fieldwork in north-east Somerset. Of more than forty excavations in which he took part or directed, perhaps the most significant was to be his last major undertaking, total excavation of a Roman-British shrine of the greatest interest at Nettleton Shrub, near Castle Combe, north of Bath. Subject of a major monograph published by the Society of Antiquaries, it stands as a monument to the happy combination of amateur and professional in archaeology, through which Bill worked.

Wedlake was responsible for more than fieldwork in his chosen interest. Quite early in life he had come upon the notes and diaries of a more remote Somerset antiquary, the Reverend John Skinner (1800-1837), Rector of Camerton. Hidden away in the British Museum library, these well-illustrated jottings contained a wealth of information about the historic remains of the Camerton region and elsewhere in Somerset, which Wedlake realised were a unique record of much that had long since vanished. He devoted time and painstaking care to deciphering and transcribing Skinner's manuscripts and it is to the great regret of all who know of this work that it has never been published.

When the County of Avon was formed during local-government reorganisation in 1973, some of us, including Bill Wedlake, saw to the establishment of an Avon Archaeological Council, which could speak with authority on the important ancient heritage within the newly-drawn county. Wedlake was chosen as its obvious first chairman. For this, and for a lifetime dedicated to the unearthing and documenting of what happened a very long time ago, Wedlake was awarded by Bristol University the degree of Master of Arts *honoris causa* in 1986, a form of scholarly recognition that gave him great delight.

Shortly before his death Bill Wedlake was received into the Roman Catholic Church. Following Catholic practice, when he was confirmed he took the name of Ethelbert, in memory of his great friend and mentor during youth, Father Ethelbert Horne. He never married.

Nicholas Thomas