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COVER
Ibberton church about 1890.

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The Buildings of Shaftesbury Abbey in the Mid-sixteenth Century

F.C. HOPTON

The sketch of Shaftesbury Abbey in the Pembroke Survey (Straton, 1909, 487)

INTRODUCTION

The aim of the enquiry is to describe the buildings of Shaftesbury Abbey as they were in the mid-sixteenth century and to locate them within the abbey precinct. The evidence on which the enquiry is based consists of the following documents:

1. A survey of the abbey buildings dated 1565. (Appendix 1)
2. The Pembroke Survey, which gives two other descriptions of the abbey site and buildings, dated 1548 and 1574, (Appendix 1)
3. The 1615 map of Shaftesbury made by William Willis. (Figure 1)
4. The 1799 map of Shaftesbury by William Upjohn. (Figure 4)

The 1565 survey is printed in Hutchins (1774, 21-22). The document was then owned by Mr. John Knipe of Semley in Wiltshire but it has now been lost. It describes a division of the entire abbey site into three Parts. Each Part is allotted a number of abbey buildings; a third share of the commodities of the dovehouse, the well and the laundry house; a third share of the profits of fairs and markets and courts; and a third share of the land in the abbey precinct. Boundaries are given to divide the level ground, consisting of the churchyard and the abbey gardens and lying between Bimport and the edge of the escarpment; and also to divide the steep ground from the edge down to St. James's Street below. This second area of land is named the Park in the 1565 survey, in the 1574 *Pembroke Survey* and on the 1615 map. It is still called the Park at the present day.

The purpose of this division remains unknown. It has been suggested by Miss Sydenham (1959, 69) that it was made to share the whole property between Sir Matthew Arundell and his two sons, Thomas and William, although she acknowledges the difficulty that Lord Pembroke did not lease the abbey site to the Arundells until 28 April 1572, the date of the indenture given in the *Pembroke Survey*. The reason for the division remains a mystery and moreover, it never seems to have been put into effect.

The abbey precinct has never been divided into three parts. It remained in the possession of the Earls of Pembroke until the 1680's when it passed to the Earls of Shaftesbury. In the eighteenth century gardens were laid out and houses built in the vicinity of the churchyard and in the Park itself five cottages were built facing St. James's Street (Sydenham 1959, 109-113). From about 1776 most of these were bought up as part of an electioneering property in Shaftesbury, which went through the hands of several borough-mongers until Lord Grosvenor purchased it in 1820. It was not until 1918/1919 that the Grosvenor family sold its extensive estates in North Dorset, including most of the town of Shaftesbury.

One of the borough-mongers had been Robert Peter Dyneley, who, in 1816, gave the Park to the Corporation for the use of the inhabitants, together with the broad promenade called Park Walk along the edge of the escarpment and another open space called Castle Hill, on the north side of the promontory on which Shaftesbury is situated (Rutter, 1827, 25; Figure 1 and the aerial photograph Plate 1).

Hutchins offered no provenance for the 1565 document and it is possible that it is a forgery. But why should anyone want to forge such a document? and would a forger have known enough to have omitted important and obvious monastic buildings such as the cloisters and the abbess's lodging, both of which are in fact missing from the 1565 lists? There can be no guarantee of its authenticity but it seems worth while accepting it at its face value. The vocabulary and spelling used in the document appear to be of the sixteenth century and the methodical manner in which the lists have been drawn up, with the different types of buildings in each Part given in the same order and with frequent references to 'on the west side thereof', or, 'in the west side of the same', does seem to indicate that the surveyor was working to a plan from direct observation.

The purpose of the *Pembroke Survey* 1548 and 1574 was to make a record of the Earl's possessions. The important information to be set down was the date of the lease and the rent payable; only a short description of each property was necessary. There was no need to name every abbey building within the precinct, nevertheless, as can be seen in Appendix 1, those buildings which are named in 1574 do correspond with buildings given in the 1565 lists, sometimes with valuable, additional information.

The 1615 map is printed in Hutchins (1803, 389, mentioned 1774, 6). It is not an accurately surveyed map, but on the other hand it is not just a free-hand sketch. William Willis must have made some measurements and used a scale of some sort however inaccurate might have been his later drawing of the map.

An attempt was made to discover Willis's scale by pacing the length of several streets and lanes around the abbey precinct and the churchyard of Holy Trinity. The distances were then averaged and a scale of approximately 11 yards to one tenth of an inch (5 chains to 1 inch) was discovered. It is readily admitted however that this scale does apply only to the central area around the abbey; elsewhere it does not hold good at all, not even in the north-south direction through the abbey precinct.

Valuable information can be deduced from the 1615 map. The boundaries of various properties are of great interest and in the area around the abbey they do appear to be reliable, at least in respect to relative size and shape, because some of them can be recognized even at the present day; for example, the frontage of Arundell's at the east end of Bimport, the Maudlin poor-house in Magdalene Lane (Maudlin on the 1615 map) and the ancient guildhall with the adjoining cottage on the west side at the top of Long Hill - now Gold Hill (D in Figure 2): moreover, the two cottages described in the *Pembroke Survey* 1574 as being 'next to the cemetery of the abbey' can be identified on the map alongside the wall on the east side of the churchyard (Z in Figure 2). It seems the map maker was not just inventive and so the outlines he gave of buildings, gardens, curtilages and courtyards can be accepted even if the dimensions are only approximate.

The buildings outlined on the map in the area of what must have been the abbey precinct can be presumed to have belonged to the monastery: that is, the building to the west of the abbey church itself, X in Figure 2, the one in Bimport called Foyle's, lying parallel to Holy Trinity church and the two groups of buildings, one on either side of the entrance into the abbey precinct from Bimport, in particular the L shaped group on the east side. This complex is too large to be just five separate

buildings, as will be seen later, and the suggestion is that the outlines represent five courtyards with abbey buildings placed around (Figure 2).

It is true that by 1615 the conventual buildings named in 1565 might have been wholly or partially in ruins; or re-building might have taken place, but the strong presumption remains that the boundaries round the whole of this L shaped property were visible in 1615 and recorded by Willis on his map. Independent evidence confirms the existence of the building called Foyle's, as will be shown later.

The 1799 map of Shaftesbury by William Upjohn (used by Hutchins 1804, 390), a professional surveyor living in the town, is an accurately surveyed map and it shows the same L shaped boundaries on the east side of the former entrance to the Abbey, now called Abbey Walk. (Figure 4)

The first step towards locating identifiable abbey buildings is to establish the boundaries between the three Parts of the 1565 survey and then to draw them on the 1615 map, because, if the share of the precinct allotted to Part I is known, an attempt can be made to match the buildings listed as belonging to Part I in 1565 with those still showing on the 1615 map which are in Part I's share of the ground; similarly for Part II and Part III.

ESTABLISHING THE BOUNDARIES OF THE THREE SEPARATE PARTS

The Boundary of the Abbey Precinct (Figure 2)

The survey gives only the internal boundaries between the three Parts. The other boundaries, self evident to the writer, were the boundaries around the entire precinct of the abbey and these need to be established first by using the 1615 map.

The buildings shown running southwards from the east end of Bimport as far as the north side of the present Church Lane cannot be identified as abbey buildings in the survey. The New Inn - later the Red Lion, now the Grosvenor Hotel - is described in the *Pembroke Survey* as being in the centre of this line of buildings. (*Pembroke Survey* 1574, 517) So the precinct boundary seems to have been along the cemetery wall in what is now Lyons Walk.

The large building on the map aligned north to south from Church Lane to the cottages in what is now Park Lane *was* an abbey building, namely the brode hall in the Part I list, to be demonstrated later. Therefore the precinct boundary passed in front of it. However the two cottages on the map at right angles to the brode hall were not abbey buildings: the one on the corner at the top of Gold Hill was the ancient guildhall of the borough. (Hutchins 1774, 24). Curiously, the two gardens behind the ancient guildhall and the neighbouring tenement *were* in the possession of the abbey. They were included in Holy Trinity parish in 1574, when they had passed to Lord Pembroke, along with all the other abbey property in the town, and were leased to Robert Somerfelde and Thomas Skudemore. (*Pembroke Survey* 1575, 515)

The precinct boundary, on this evidence, appears to have passed along the back of the ancient guildhall and its neighbour and then to have followed the medieval wall down Gold Hill and along St. James's Street as on the 1615 map.

The line of buildings shown in 1615 from the end of the wall as far as Tanyard Lane is not mentioned in the 1565 survey. Therefore the precinct boundary turned north at the end of the wall and presumably followed the looping line drawn on the map to reach the western end of what is now Park Walk at the point where there used to be a kissing-gate at the top of Stoney Path. (A in Figure 2). Stoney Path was formerly Launder Lane (Mills 1989, 147) Two pieces of evidence help to confirm that this is indeed the western boundary of the abbey.

First, it coincides with the boundary of Holy Trinity parish, although on the Tithe Map the parish boundary has been drawn as a straight, diagonal line, cutting across the back gardens of the houses in St. James's Street. There are also remains of a boundary bank southwards from the former kissing-gate at the top of Stoney Path.

Further confirmation for this line being the western boundary can be

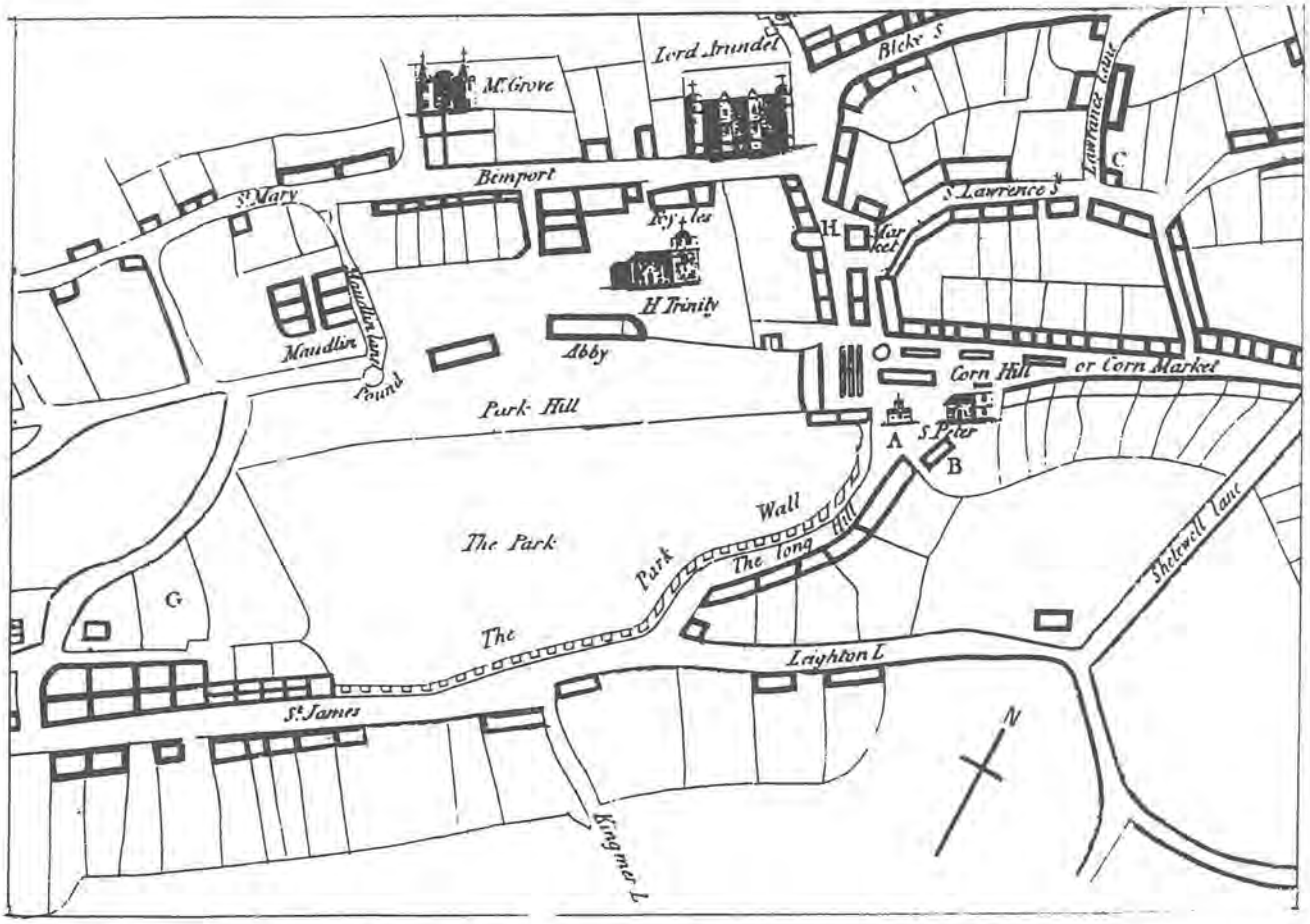

Figure 1 The central part of the 1615 map of Shaftesbury. The original Key shows A Gould Hill, B Fish Cross, C Parson's Pool, G Lander House, H Butter Cross. Approximate scale 1 inch to 110 yards.

found in the wording about the laundry house in the 1565 survey. The commodities of the laundry house, marked on the 1615 map, were to be shared equally between the three Parts just like those of the dovehouse and the well, and rights of egress and regress, as appropriate, were given to each Part for both the dovehouse and the well, but not for the laundry house. The inference is that rights of access were not needed because the laundry house was not on land within the precinct belonging to any one Part. It was outside the boundary and freely accessible with no need for specific rights of egress and regress to be written into the agreement.

From the site of the former kissing-gate at the top of Stoney Path the boundary continued to what is now Love Lane. The pathways have been altered in order to create the present Pine Walk but it is interesting to note that the lay-out of the paths on the 1615 map is similar to that on the 1799 Upjohn map.

The boundary then followed the east side of Magdalene Lane to Bimport. According to common sense it should continue from the north end of Magdalene Lane along the south side of Bimport back to the starting point at the north east corner of the precinct, but there is a difficulty because the two sources present contradictory evidence, which makes this common sense line by no means certain.

On the 1615 map six buildings with gardens or courtyards are shown between Magdalene Lane and the present Abbey Walk, which was the site of the abbey Gatehouse, whereas the description in the 1565 survey mentions only two buildings in this area: '... with one other chamber next thereunto and over the Gatehouse and also one other chamber next unto the same in the west side thereof. The larder house with all houses of office within the great gate of the said larder house and the ways for the entry of the same.'

The site of the larder house can be identified on the 1615 map as the largest building west of the Gatehouse because its great size is attested in the *Pembroke Survey* of 1574, (Appendix 1) but the next four tenements and gardens are conspicuously not mentioned in the 1565 division of the abbey buildings.

How can this omission best be explained? It is possible that this area never was part of the abbey precinct and the boundary always ran behind the gardens from Magdalene Lane to the west wall of the courtyard at the rear of the larder house. But what could have been the reason for such an odd boundary line? and what purpose had this piece of ground been used for if it had never been part of the abbey precinct?

It seems preferable to accept a straightforward, common sense boundary from the north end of Magdalene Lane directly along Bimport and try to reconcile the contradictory evidence in the two sources.

The 1565 survey mentions no abbey buildings west of the larder house so the suggestion is that this area might have been part of the abbey gardens. The four tenements shown on the 1615 map could have been built during the fifty year interval between 1565 and 1615 after this part of the former abbey grounds had been sold off or leased. It is likely that the site of the larder house itself had also been re-developed during this period because the 1574 *Pembroke Survey* describes the larder house as 'being now or lately in existence.' The gardens were undoubtedly in the western half of the precinct as the 1565 survey contains instructions for their division between Part II and Part III with a boundary running from the dovehouse to the north walls. (Figure 3) Unfortunately the wording of these instructions is unclear and consequently uncertainty still surrounds this section of the precinct boundary.

From the larder house onwards however all is straightforward; the boundary passed along Bimport in front of the Gatehouse at the present Abbey Walk and in front of the buildings in the two great courts shown on the 1615 map to return to the starting point at the north east corner of the wall enclosing the abbey burial ground (or lytten) 'now called the Trynytye churchyard.' (*Pembroke Survey* 1574, Appendix 1).

The Division of the Park (Figure 2)

Each Part received a share of the abbey grounds by dividing the precinct

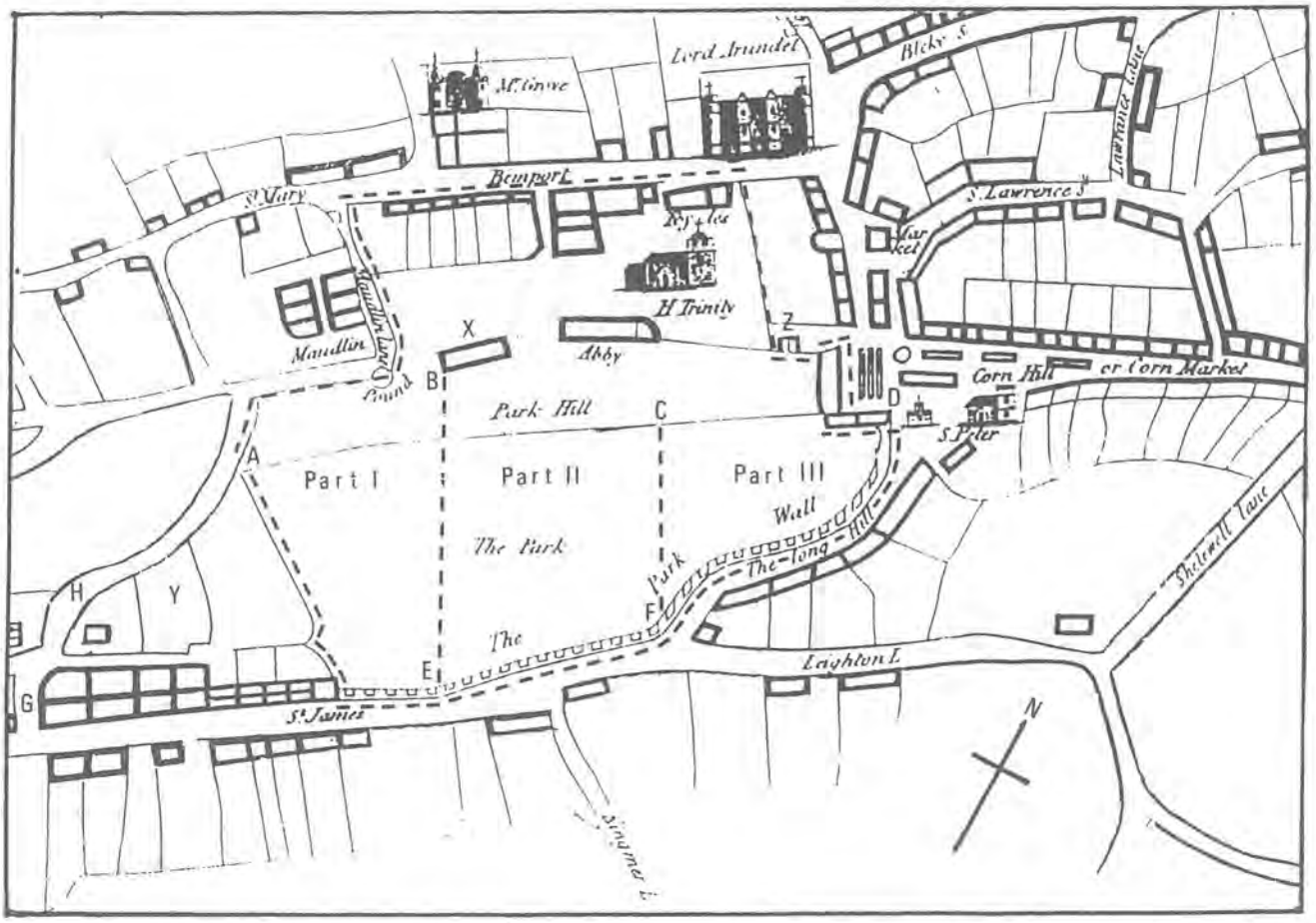

Figure 2 The 1615 map showing the precinct boundary and the division of The Park into three Parts. A The gate at the top of Stoney Path, B The south west corner of the dovehouse, C The estimated position of 'the post against the place', D The corner of the ancient guildhall at the top of Gold Hill, E The great 'oke' in St. James's Street, F The door into 'the street of St. James', G Tanyard Lane, H. Stoney Path, X The dovehouse, Y The launder house, Z The two cottages mentioned in the Pembroke Survey 1548. The dotted line is the precinct boundary. Approximate scale 1 inch to 110 yards

from north to south. Boundaries are given, first to divide the Park, that is the land still called the Park and so named on the 1615 map, stretching from the southern boundary wall up the escarpment to the level ground at the top, called Park Hill in 1615 but now known as Park Walk, the splendid promenade enjoyed by both Shastonians and visitors. Secondly there are boundaries given to divide the gardens and other level ground in the quadrilateral between Magdalene Lane and Lyons Walk and between Park Walk and Bimport. The assumption is made that the three Parts were given approximately equal shares.

Part I was allotted the east end of the Park and Part II, 'the second part of the Park bounded six feet on the east of the dore goinge out into the street of St. James's parish and assending thence to the post against the place.'

This boundary was presumably at right-angles to the wall and to Park Walk. But where was the door into St. James's Street and where was 'the post against the place'? No gateway is shown on the 1615 map, but as a trial, let it be assumed that the position of the door has survived the centuries to become the present entrance. This is in line with the present path which leads up to Park Walk, emerging opposite the end of Abbey Walk. Such a boundary would have given more than half of the Park to Part I, leaving too little to be shared between Parts II and III. The door into St. James's Street must have been farther east than the existing entrance.

Can anything be said about 'the post against the place'? The word place sounds vague to modern ears but it occurs twice elsewhere in the survey to describe 'a grene alley on the south side of the place', so it appears to have had a more exact meaning for the surveyor in 1565. The *O.E.D.* definition 'a residence, dwelling, house, seat, mansion, formerly sometimes a religious house, a convent.' suggests that 'the post against the place' was against the abbey itself or another abbey building on the south side, such as the cloisters or chapter house. The boundary between Part I and Part II cannot be recovered but more success can be found with the next internal boundary.

In Part II the second part of the Park is described as being 'in the west side lying against the thridde part of the said Park against the great oake in the south west side of the same parte and so assendeth to the south west corner of the dovehouse.'

Not much can be said about the position of the oak tree but it may be possible to justify the suggestion that the building west of the abbey church (X in Figure 2) represents the dovehouse. It stands in the abbey gardens, isolated from all the other conventual buildings. Its rectangular shape is consistent with the style of dovehouse built in the period 1400 to 1650. (Beacham 1990, 89) At first sight it does seem too large, especially in relation to the abbey church, or its ruins, which Willis has made far too small on the map; but on the other hand, large dovehouses were by no means uncommon. At Willington near Bedford, the National Trust owns one which has 1500 nesting boxes.

Pigeons provided a constant supply of protein even in winter and the droppings were the main source of saltpetre until after 1650 when it was imported from the east. It seems reasonable to suppose that the abbey church, the cloisters, the refectory, the chapter house and many other buildings not adaptable to secular use might have been taken down in order to use the stone for re-building elsewhere, but not the dovehouse. Its commodities were too valuable.

As shown in Figure 2 the boundary between Part II and Part III can be drawn from B, the south west corner of the dovehouse, to E, the position of 'the great oke' in St. James's Street, thus giving approximately one third of the Park to Part III.

'The post against the place' can be placed at C, mid-way between B and D, which is the east end of what is called Park Hill on the 1615 map but is now called Park Walk. The boundary drawn from C to point F, the estimated site of the door in the southern wall, gives an approximate third share of the ground to Part I and another third to Part II.

Transferring these two boundaries from the map to today's ground requires measurement from fixed points which can be judged to have remained unchanged since 1615. One reliable unchanged point is D in Figure 1. This is where the first cottage in the present, narrow Park Lane joins the medieval wall on the west side of Gold Hill. This cottage is on the site of the ancient guildhall mentioned in Hutchins (1774, 24) and in the 1574 *Pembroke Survey* (515).

From a scaled measurement from the 1615 map of 240 yards the south west corner of the dovehouse can be positioned in line with the door marked No. 2 underneath Melbury ward, an extension to the Westminster Memorial Hospital: this point is 26 yards west of the corner of the hospital grounds at the Abbey Walk - Park Walk junction.

'The post against the place' mentioned in the second boundary, point C, has been placed midway between B and D. On the 1615 map the distance from B to D scales at 240 yards. Therefore the present-day position of where the post might have been is 120 yards west of D. This point is 8 yards east of the present entrance to the Abbey ruins.

These two boundaries must be taken as only approximate, because, although it may be accepted that the building marked X is the dovehouse, there is no way of knowing that the maker of the 1615 map positioned it on his map accurately; and of course the boundary between Part I and Part II is entirely theoretical and only given to provide a rough idea of the division.

The Division of the Church ground and the Gardens. (Figure 3)

The division of the level ground from the present Park Walk to Bimport and from Magdalene Lane to the existing Lyons Walk is stated in these terms.

No boundary at all is given between Part I and Part II. The document merely says that Part I is to be given 'the ground of the sympree and the church and the east end of the Park' and 'half the grene alley on the south side of the place.' The word *sympree* does not appear as such in the *O.E.D.* but *pree* is cited from 1615 as a *meadow* and *sym* is an assimilated form of *syn* meaning *alike, together, with, similar*. Therefore *sympree* could mean adjoining grass plots. The word *le cimprye* is also used in the 1548 section of the *Pembroke Survey*. It would appear that Part I was given all the ground the abbey church and cloisters stood on and the churchyard to the north with all vacant grass plots. The churchyard of Holy Trinity was certainly counted as abbey property and rented to the Arundells in 1574. ' ... also they hold the cemetery, formerly called the abbey lytten now called the Trynytye churchyard.' *Pembroke Survey* 1574 (Appendix 1)

Part II was granted 'the east part of the garden being between the ester part and quoygne of the said dovehouse and assendeth northwards to the north walls four feet in theste side of the dore coming out of the base court of the thridd part of the said garden, with the other half of the grene alley above expressed in the south side of the place.'

Part III was granted 'the west part of the garden lying from the ester part of the quoygne of the dovehouse ascending four feet in thest part of the wall coming in out of the said court into the said thridde part of the same garden.' No part of a grene alley is given to Part III.

These two quotations refer to the same boundary despite one or two variations in wording: when repeating the description in Part III the writer omitted 'northwards to the north walls' and by mistake wrote wall for door in the phrase about the base court. A door coming out of the base court makes better sense than a wall doing so.

The north end of this boundary is enigmatic. Were the north walls along Bimport? If they were then the dovehouse, as already suspected, was not accurately positioned on the 1615 map because a boundary running north from its 'ester part and quoygne' would have ended at the rear wall of the larder house courtyard. (Figure 3) It seems impossible to work out the exact meaning of this boundary but what is clear is that Part II was allotted the gardens east of a line running north from the dovehouse and presumably the land as far as the ground of the church and the sympree granted to Part I. Part III received the gardens lying to the west of this line as far as Magdalene Lane and extending to the north walls, which were probably along Bimport from Magdalene Lane to the larder house.

The last division of ground to be considered is 'the grene alley on the south side of the place', which was to be shared between Part I and Part II. In the O.E.D. an alley is defined as a walk, or passage, or a walk in a garden. The eastern half of the present Park Walk is wider than the western half and this feature of the topography must have been one of the reasons why the Norman abbey church was sited east of the present Abbey Walk. This position allowed room for the church, the cloisters and other abbey buildings on the south side and also for a pleasure walk before reaching the edge of the steep slope down to St. James's Street. (Figure 3)

LOCATING THE ABBEY BUILDINGS WITHIN THE PRECINCT

Part I Buildings (Figure 3)

It seems reasonable to assume the Part I buildings are to be found in the Part I share of the abbey precinct but as may be seen from Figure 1, the 1615 map, there were few abbey buildings still standing in 'the ground of the sympree and the church' in 1615, so little help is to be found there. What is required is a known starting point, 'a fix' to establish the position of one building. 'The fix' for Part I is *the frayt' chamber* I 5, next to the frayt' with an oryall in between, that is, a corridor, a passage or a porch. (*O.E.D.*)

A Frayt' or frayter was the refectory in a monastery, usually to be found above a claustral walk or built against the outside wall of one side of the cloisters, often against the side opposite to the church away from the kitchen smells. The cloisters of Shaftesbury Abbey were on the south

side of the nave; the north walk was about 33 yards long (*RCHM* 1972, 58) The distance from the south side of the nave to the edge of the escarpment is about 50 yards at the west end and about 44 yards at the east end of the cloisters.

The frayt' seems to be mentioned merely to identify *the frayt' chamber* and no building called the frayt' is actually allotted to Part I. The conclusion must be that although *the frayt' chamber* I 5, was still standing the frayt' itself was no longer in existence in 1565 or was probably a ruin with just the oryall still recognizable adjoining the frayt' chamber. No dormitory is mentioned in the list of buildings either and no hall or lodgings for the abbess. These were other apartments most usually built over claustral walks or against the outside walls. Because these are not included in the list it must be presumed they had been demolished by 1565. The contemporary sketch at the beginning of the *Pembroke Survey* 1548 (p 1), shows the view of the abbey church from the south. The south tower at the west end is standing but the nave is in ruins and no cloisters can be seen at all.

Building I 5 *the frayt' chamber* was next to the frayt' and buildings I 6, 7, 8, 9 and 10 were all close by because the named buildings I 9 and I 10, '*the Kitchyn clerk's chamber*' and '*the Kechyn with the houses of office belonging of old tyme to the said Kitchyn and within the same*' must have been directly connected to the frayt'. The houses of office were the lavatories and wash-rooms. *The unnamed chamber* I 6 and the *two squires' chambers* I 7 and I 8 were probably all in the same group and located at the south east corner of the cloisters and along the south side. (Figure 3) To provide a ground plan for these buildings from the description available seems out of the question. What can be said is that there was enough room between the south side of the nave and the edge of the escarpment for the cloisters, the refectory and these other buildings as well as '*the grene alley in the south side of the place*'.

About buildings I 3 *the chapel* and I 4 '*the long leden chamber*' there can only be speculation. The description and ground plan of the church, part of the cloisters and part of the chapter house (*RCHM* 1972, 58) make no reference to a chapel in this area except to name the south transept of the church as the south chapel. Could this have been building I 3? or perhaps the surveyor in 1565 meant chapter house when he used the word chapel? Could '*the long leden chamber*' I 4 have been the chapter house? One meaning for *leden* in the *O.E.D.* is that it is Old English for Latin, or for the language of a nation, or speech of a person or class of persons. So it might have meant something like 'the speech chamber', or 'discussion chamber', which was in effect what a chapter house was used for. On the other hand leden could be an archaic spelling for leaden to indicate a building with a long, lead roof. The chapter house was a long building - about 15 yards in length (*RCHM* 1972, 58). The best that can

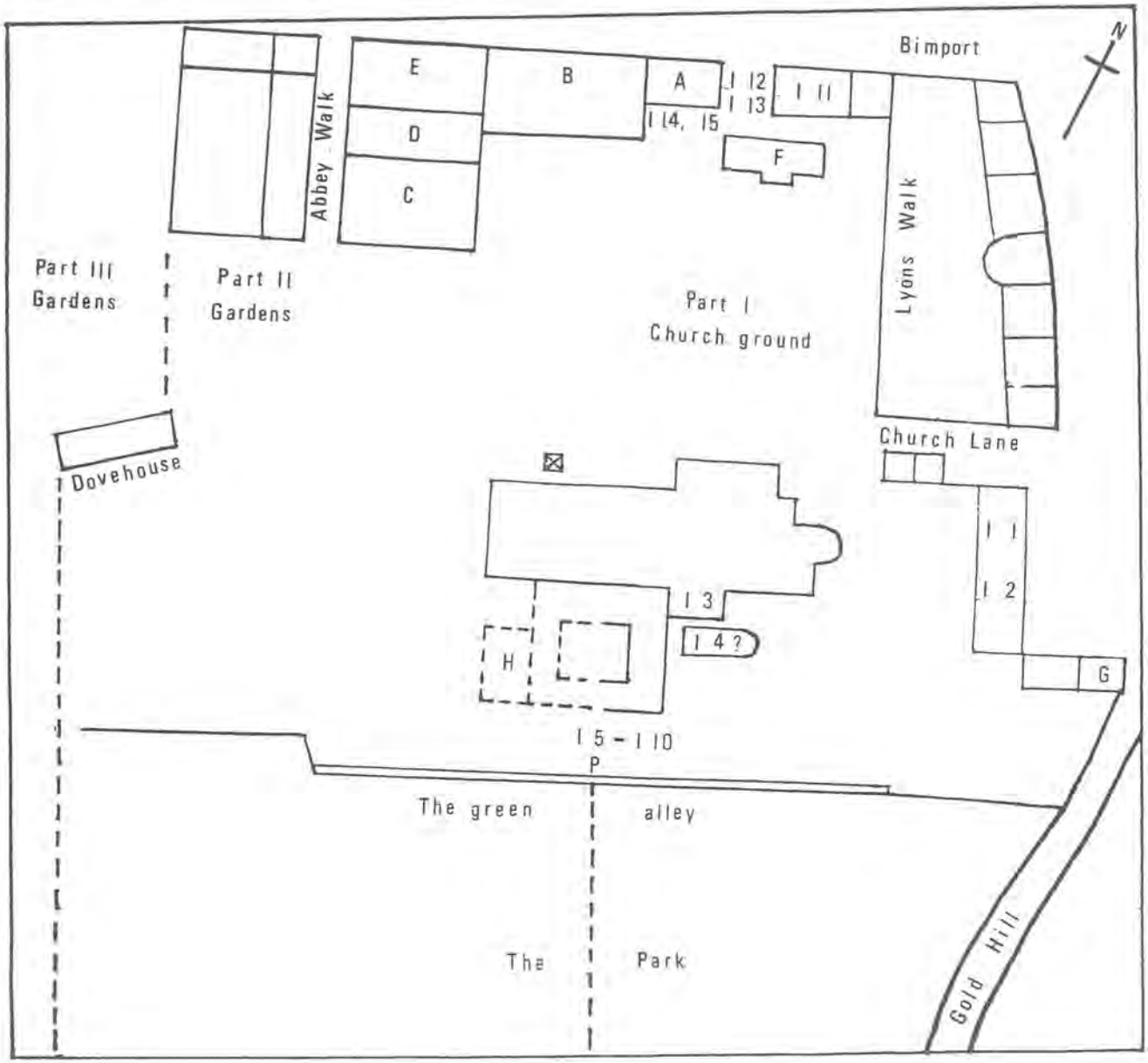

Figure 3 The buildings of Part I shown on a corrected version of the 1615 map. F Holy Trinity Church, G The ancient guildhall, H The lodging of the abbess?, I 1 Broad Hall, I 2 Broad Chamber, I 3 The Chapel, I 4 The leden chamber, I 5 The frayter chamber, I 6 The chamber next to the stairs, I 7, 8 Two squires' chambers, I 9 Kitchen Clerk's chamber, I 10 The kitchen, I 11 The long stable, I 12, 13, 14, 15 The bakehouse, pastryhouse, bred house and hearth house in Court A.

be established is to place *the chapel* I 3 and '*the long leden chamber* I 4 east of the cloisters.

Because most of the south walk of the cloisters and any attached buildings west of the group of buildings I 5 to I 10 (*the frayt' chamber* to *the kitchen*) were in ruins by 1565, it follows that *the brode hall* I 1 and *the brode chamber* I 2 must be looked for east of the chapter house and east of the south transept of the abbey itself. The surveyor in 1565 was working from east to west in making his list of the buildings just as he did in demarcating the ground of the Park.

On the 1615 map (Figure 1) the long building lying north to south across what are now the two entrances to Park Walk can be recognized with some degree of conviction as *the brode hall* I 1, containing within it *the brode chamber* I 2. Three observations can be held to justify this identification.

i. The name broad hall is an apt description of this building, whether viewed from outside the precinct in the High Street, or from inside the abbey grounds. From the 1615 map it scales at about 33 yards; it stretched from the north side of the cottages in what is now Park Lane as far as what appears to be the rear boundary of the houses on the south side of Church Lane. Church Lane today is about 5 yards wide but on the 1615 map it is about 14 yards wide. By pacing this distance from the north corner of Church Lane (Barclay's Bank) the north end of the broad hall can be fixed between the door of the cafe called King Alfred's Kitchen and the door of the small shop next door.

When these premises were renovated in the 1970's, Mr. B. Richards, the foreman/mason, discovered in the cellar the foundations of a large wall, aligned east to west, at about this same place - undoubtedly the foundations of the north wall of this impressive building shown on the 1615 map.

ii.*The buttery* and *pantry* are described as being '*in the north end of the same hall*', which must indicate that the broad hall was aligned in a north-south direction.

iii.The functions of the departments named within the broad hall and the broad chamber: *the buttery*, *the pantry*, *the seller*, *thalmery* (the almery) and *the wine seller*, all involve the coming and going of goods and so require a position at the edge of the precinct facing outwards to the world.

The *almery* was the almonry, from which alms or doles of food were dispensed daily to the poor (*O.E.D.* meaning 3)

All the buildings dealt with so far are listed under the heading *Imprimis* i.e. 'in the first place' and they may all be described as conventual buildings. Next in the list, under a new *Item* heading is I 11, '*the long stable and the hay house belonging to the same*', then under another *Item* heading I 12, 13, 14, 15, '*the great backhouse with pastry house, bred house and hearth house belonging to the same*'; finally,

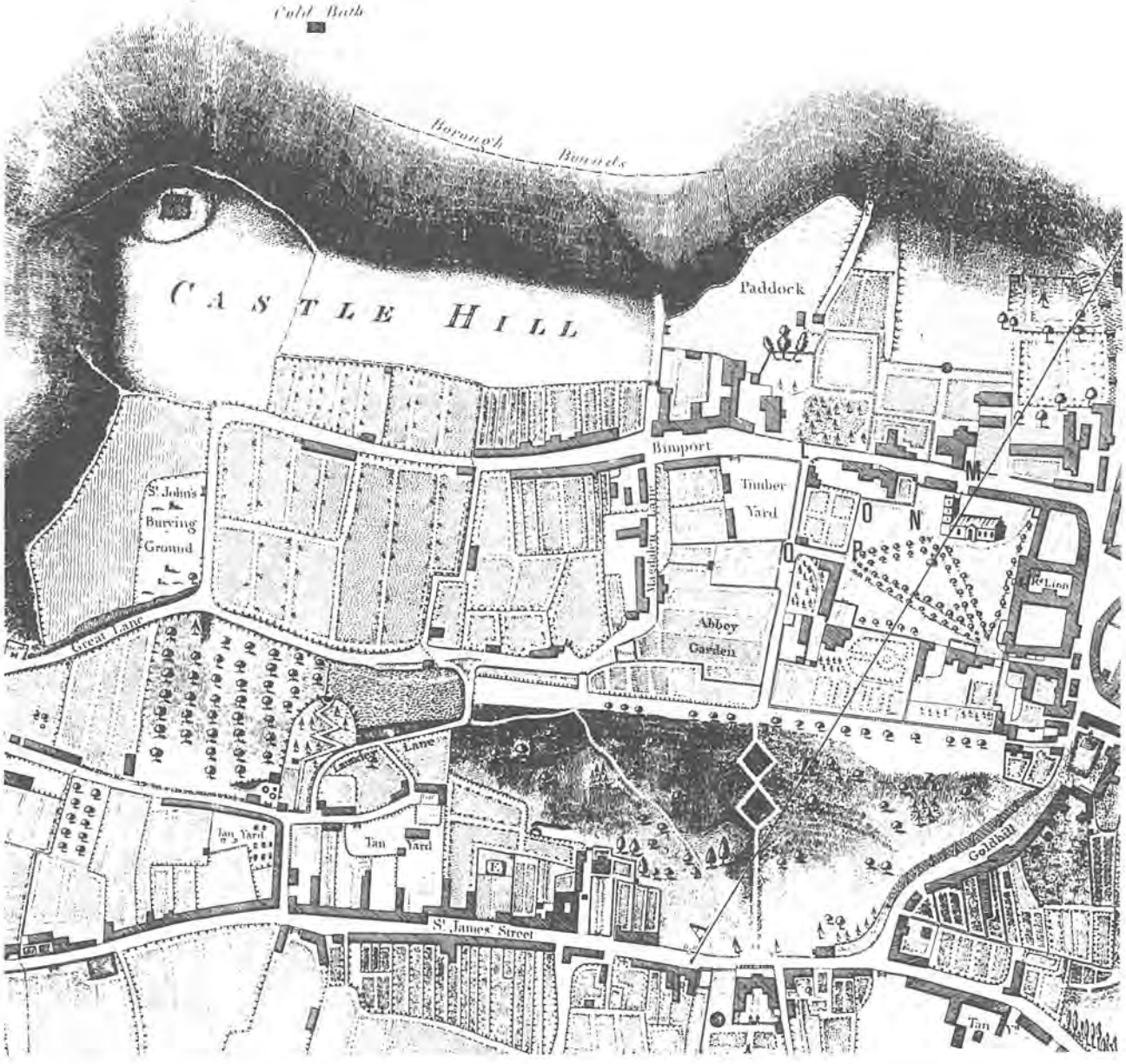

Figure 4 Part of William Upjohn's 1799 Map of Shaftesbury to show the 'fossilized' boundaries of courts A B C D E around the site marked L M N O P Q. The diagonal line is part of the original map.

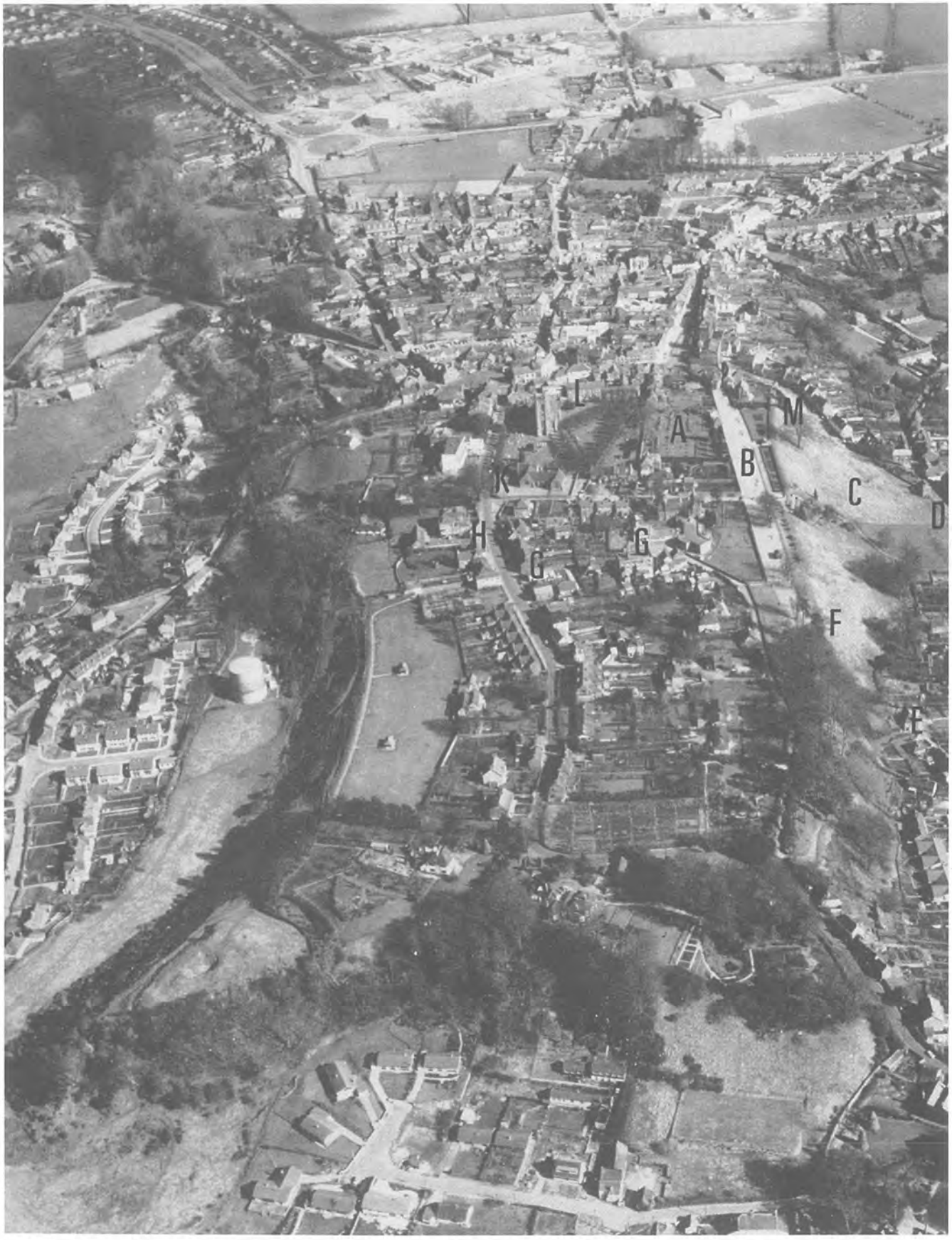

Plate 1 An aerial photograph of Shaftesbury looking eastwards. A marks the ruins of the abbey church, B Park Walk, C The Park, D St James's Street, E the site of the launder house, F the top of Stoney Path, G-G Magdalene Lane, H Bimport, K the site of the former primary school, L Lyons Walk, M Gold Hill

under yet another *Item* heading, I 16, '*the maltesmen's chamber lying in the base court*' and I 17, '*the moyety of the grynter house*.'

These last named buildings, I 12 to I 17 in the list are different from those under the *Imprimis* heading, the conventual buildings: they are stables, stores, lodgings for lay servants and 'work' buildings. This same order is followed in the lists for Part II and Part III: conventual buildings first; next, the stables; finally, the 'work' buildings.

On the 1615 map (Figure 1) there do appear to be two more buildings, besides the brode hall, which are within 'the ground of the sympree and the church' allotted to Part I. The first building, marked Foyle's, in the north east corner of the churchyard, can be identified as '*the long stable and hay house belonging*' I 11.

Hutchins had a sight of another ancient map of Shaftesbury, dated, he thought, about 1620, on which he could decipher the names of the owners of various properties in the town. Fortunately it not only mentioned the Foyle property but specifically named it as a stable and furthermore exactly located it as lying 'parallel and north of Trinity church.' (Hutchins 1803, 396)

The same property is described in the *Pembroke Survey*: in 1548 Edith Joye held 'a tenement and garden next to the long stable' in Holy Trinity parish; in 1574 Thomas Berwike rented the same tenement with its curtilage and garden for the same rent of 13 shillings and 4 pence.

The other building probably within the ground allotted to Part I is marked A in Figure 3. This could have been *the great bakehouse* I 12, with all the other baking departments I 13, 14, 15, *the pastry house, the bred house and hearth house*, either in one building or perhaps arranged around a small courtyard. The fact that no western boundary of the churchyard is shown on the 1615 map makes this identification less certain than locating the long stable at Foyle's, but the surveyor's method of working from east to west and the position of the bakehouse in the list under a separate Item heading do make it at least a reasonable deduction.

The maltesmen's chamber I 16 is described as 'lying in the base court' so there is a strong presumption that *the grynter house* I 17, under the same *Item* heading, will be found there as well, but the question of the base court, the 'work' buildings and their location is deferred to a later section.

Part II and Part III Buildings (Figures 5 and 6)

The Part I buildings were looked for and found in Part I's share of the ground. It had been expected at the outset therefore to find the Part II and Part III buildings also in their respective shares of the ground, but it is not so.

The boundary between Part II and Part III, from the east side of the dovehouse to the northern walls, is irrelevant for the purpose of locating buildings because a close reading of the text of the 1565 survey indicates that it divided only the gardens between them.

Moreover, as may be seen by reference to the 1615 map (Figure 2), if Part II's share of the precinct land indeed stretched east from this boundary as far as the ground of the church, that is the churchyard, belonging to Part I, then the main group of abbey buildings arranged in the L shaped complex of courts (B, C, D and E in Figure 3) and lying east along Bimport and south along the present Abbey Walk, would have been allocated entirely to Part II.

This cannot be the case, however, because it will be shown later that some Part III buildings were located unquestionably in court E.

The conclusion seems to be that there were two main groups of abbey buildings: one group, around the cloisters and at the east end of the precinct, was apportioned to Part I and it had been mostly destroyed by the time the 1615 map was made; the other group of buildings, arranged in the four courts, was shared by Part II and Part III.

How did the surveyor in 1565 draw up his lists for these two Parts? The easiest and fairest way would have been to allot two courts to each. Before that assumption is tested, the sizes of the courts ought to be established in order to see if there was room to accommodate all the named conventual buildings under the Imprimis headings in the Part II and Part III lists.

There is at hand more reliable evidence about the size of the courts than is to be found on the 1615 map because the boundaries of the areas A, B, C, D and E became 'fossilized' and are shown on the accurate, 1799 map of Shaftesbury, surveyed by William Upjohn (Figure 4).

On this map it is 88 yards from Abbey Walk eastwards along the north side of courts E, B and A as far as the previous churchyard entrance, the same entrance as that on the 1615 map. The present entrance was made 12 yards to the east when Holy Trinity Church was re-built in 1842.

Courts E, D and C, southwards along Abbey Walk measure about 50 yards on the 1799 map, the south side of court C, about 31 yards and court B, about 20 yards from north to south.

During the nineteenth century, courts A and B became part of the churchyard, but courts C, D and E, shown as gardens in 1799, became the site of the National School and its playground; as a consequence the boundaries have been preserved to the present day. The school has now been re-furbished as flats called King Edward's Court, with the former playground walls still in place around the whole area.

Its measurements today can be established by pacing: and they match the 1799 map except the west side of the gardens in 1799 measured 50 yards; today that same side is only 45½ yards.

However the roadway in Bimport has been widened at some time, as shown by the fact that the north side of the gardens in 1799 was square to the Abbey Walk entrance whereas now it is angled gradually southwards.

It can be assumed the map maker in 1615 got right the shapes and relative sizes of the courts even if his scale was only approximate; also

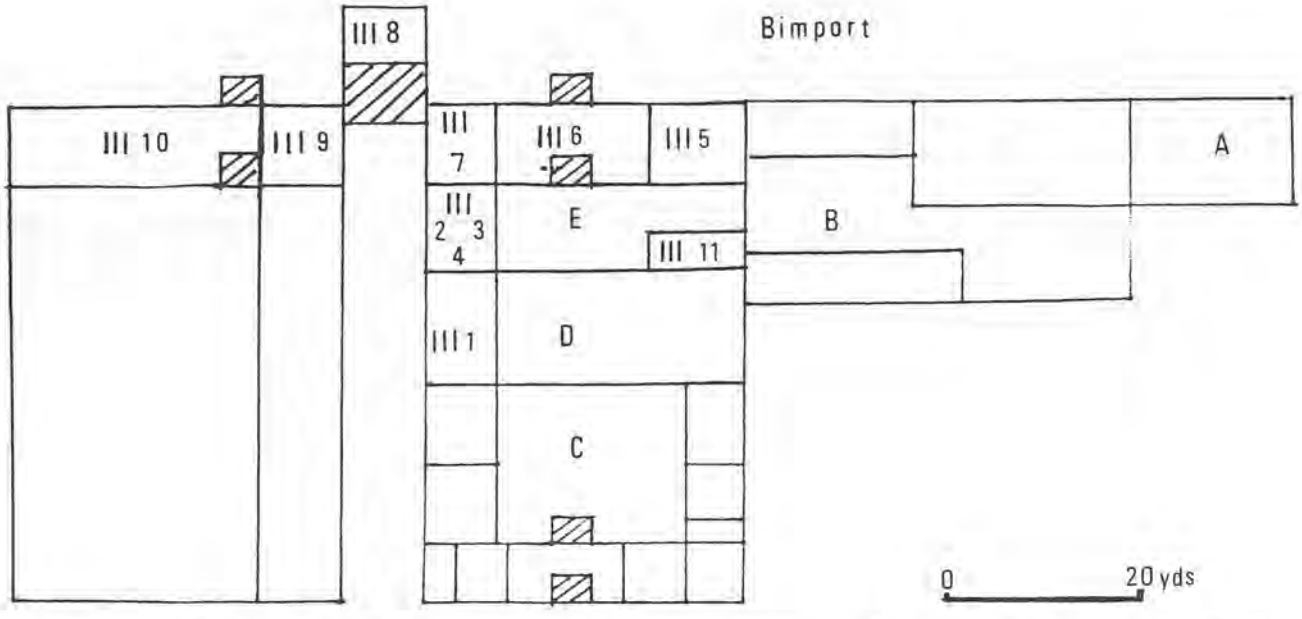

Figure 5 The Conventual Buildings of Part III. III 1 Sextry, III 2, 3, 4 Carrents Chambers, III 5 Chequer, III 6 Chequer Chamber, III 7 Steward's Chamber, III 8 Chamber over the gatehouse, III 9 Chamber next unto the gatehouse, III 10 Larder house, III 11 Small stable next to the Chequer.

that he observed correctly that courts E, B and A stretched from Abbey Walk as far as the churchyard entrance. By using the 1615 information with the more accurate distances given on the 1799 map reasonable estimates of the individual dimensions can be worked out. One other consideration was also borne in mind: from Anglo-Saxon times till the 19th century and after, the pole of 5½ yards and its multiples were in general use to lay out building plots, gardens, closes, allotments, so the sizes of the courts have been approximated to poles where it seemed both possible and likely.

Court A	16½ yards by 11 yards	:	3 poles by 2 poles.
Court B	38½ yards by 20 yards	:	7 poles by 20 yards.
Court C	33 yards by 22 yards	:	6 poles by 4 poles.
Court D	33 yards by 11 yards	:	6 poles by 2 poles.
Court E	33 yards by 16½ yards	:	6 poles by 3 poles.

The Conventual Buildings in Part III (Figure 5)

The Part III buildings will be considered before those of Part II because in the Part III list there is a 'fix' which can be used as a starting point. One chamber is described as being over the Gatehouse, which was at the entrance to the present Abbey Walk. The evidence for this was found by Miss Sydenham (28) in documents 285 to 289 of the *Cartulary of Bruton Priory* (*Somerset Record Society*, vol. viii). These leases show that the Prior and canons owned a messuage in Bimport 'to the north of the gate of the Abbey church of St. Edward.' In addition, any critical look at the precinct on the 1615 map shows the entrance at Abbey Walk to be the only possible site for the Gatehouse. Of the three other entrances, two led to the churchyard and Holy Trinity church rather than to the abbey itself and the third way was by the steep path leading up from the laundry house in St. James.

'*The Steward's chamber* III 7 'with the study and loft over' is followed by 'one other chamber next thereunto and over *the Gatehouse*' III 8. *Building* III 9 is 'one other next unto the same in the west side thereof' and last of all comes '*the larder house* III 10 and houses of office within the great gate of the said larder house and ways for entry of the same.'

The surveyor, as already noticed in Part I, described the buildings from east to west and so it can be deduced that '*the Cheker* III 5 and the next door *Cheker chamber* III 6 with the entry into the same' were east of *the Steward's chamber* III 7, thus filling up the north side of court E with its frontage on to Bimport.

Which was Part III's other court? It would be sensible to look at a court adjacent to E: so it was either B or D. The survey says the Sextry had 'a small court belonging' : D was the smallest court and it can be identified with some confidence as *the Sextry* III 1. *The 1574 Pembroke Survey* (Appendix 1) confirms that *the Sextry*, then in use as a stable for the lord's horses, was 'a house .... and a curtilage enclosed with a wall.'

The remaining Part III building, *the Carrents chamber* III 2, with *two other chambers under the same*' III 3 and III 4, can be placed on the west side of court E between the Sextry and the Gatehouse.

The names of some of these buildings require explanation. The Sextry was the Sacristry, the house occupied by the Sacristan of the abbey. 'The Sacrist had the custody of the sacred vessels, relics, vestments of a religious house .... ' *O.E.D.*

The Carrents chambers were named after William Carrents, seneschal of the abbey, or steward, in the third quarter of the 15th century (Sydenham 1959, 71). They might well have been guest chambers.

The Cheker or Chequer/Exchequer was a 'room or place for accounts ... ', one citation in the *O.E.D.* refers to 'the audit room of a monastery', so the Chequer was the financial centre controlling the administration of all the abbey estates, keeping the accounts of the rentals, the fines and the renewal of leases.

Another citation in the *O.E.D.*, taken from Holinshed, describes how at Calais 'the King rested in the Checker.' This is of particular interest because the full quotation from the 1565 survey reads: 'The Cheker and the next door Cheker chamber with the entry into the same where the court hath always been kept for the King with entry and re-entry into the same always reserved to the King and his assignes.' The entry was from Bimport, thus confirming the position of the Chequer on the north side of court E.

Henry VII used this entry on 29 September 1491 when he visited Shaftesbury on one of his progresses before he set out for Salisbury on the following day. It is to be presumed he rested in the Chequer chamber. (Daniel 1923, 47)

Ten years later, in October 1501, Katherine of Aragon no doubt received hospitality in the same apartments within this court on her journey from Plymouth to London for her marriage to Prince Arthur. (Sydenham 1959, 60)

The Steward was the abbess's chief, lay official, responsible for the administration of all the abbey estates in three counties. He was her representative in the abbey's feudal courts: the Court Leet, where on two set law days he dealt with the affairs of Shaftesbury; the Freeholders' Court, where he upheld the abbess's feudal rights over the freeholders of all her manors; and the Court of the Barony, where he settled the disputes of her customary tenants and registered the renewals and changes in their copyhold leases. (Straton 1909, lxxv)

The larder house was 'where meat and other provisions were stored,' *O.E.D.*, sufficient to supply the needs of more than one hundred persons. It was where rabbits from the abbey's warren were prepared for the kitchen, also pigeons from the dovehouse and carp from the abbey's fish ponds; and where venison and other meats were hung; and where cheeses were stored and beef salted down in barrels for the winter after the annual slaughter at Martinmas in November.

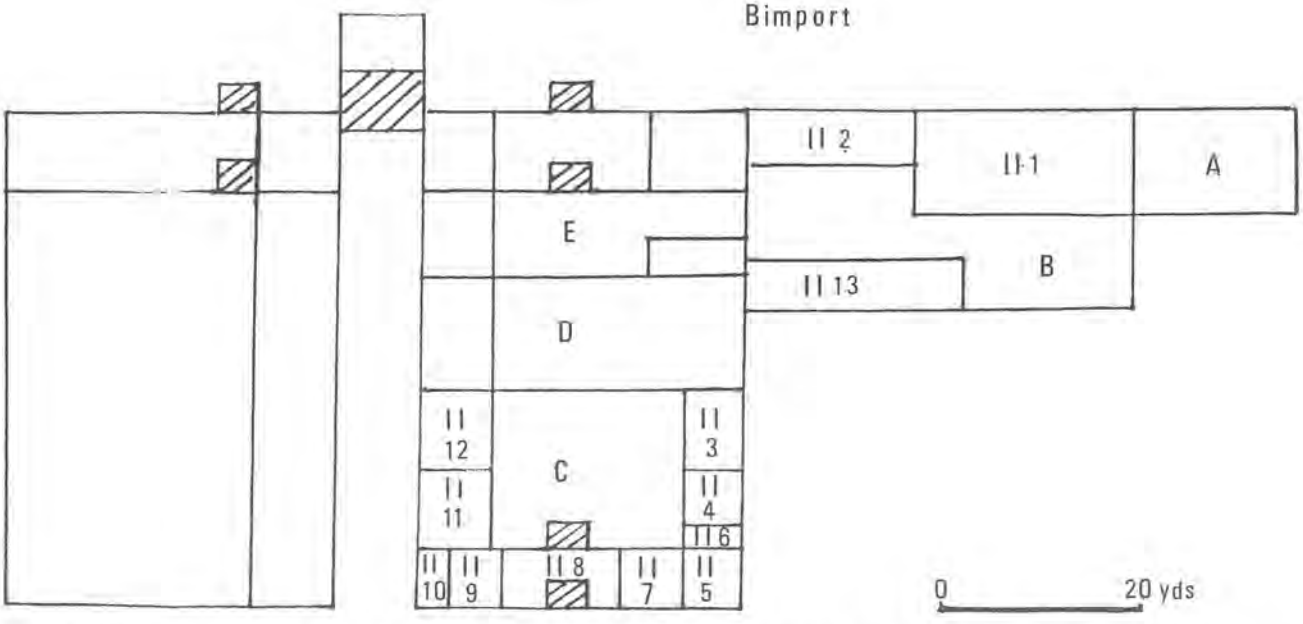

Figure 6 The Conventual Buildings of Part II. II 1 Starre Chamber, II 2 Wardrobe Chamber, II 3 Mynchen Chamber, II 4 Grene Chamber, II 5 Parlour, II 6 House of office next to the grene chamber, II 7 Fair lodging chamber, II 8 Nurcery with a broad door going in and out of the court, II 9, 10 Two other chambers ... in the west end of the same row, II 11 Garden chamber, II 12 Kitchen sometime called the covent kitchen, II 13 The second great stable.

Under a new *Item* heading in the Part III list three stables are described: one was next to the Chequer and the other two between the Gatehouse and the long stable. The first stable can be placed with some confidence in the courtyard behind the Chequer in court E, but positioning the other two seems impossibly difficult because the two points of reference, the Gatehouse and the long stable are so far apart. The remaining 'work' buildings belonging to Part III, under separate *Item* headings, will be dealt with in the final section along with those of Parts I and II.

The Conventual Buildings in Part II (Figure 6)

There is no 'fix' from which to start locating the buildings under the *Imprimis* heading in the Part II list but their functions may provide clues about whether their positions were in court B or court C.

The starre chamber II 1 was in all likelihood the court room of the abbey where the abbess held her baronial court, the Curia Legalis Feodorum Baroniae, to exercise her feudal rights over her numerous manors. (Hutchins 1868, 13). Whether it was named after the Star Chamber in London, the prerogative court much used by Henry VII and his successors, or whether it had always borne the name for other reasons are unanswerable questions. The *Pembroke Survey* 1574 (Appendix 1) mentions 'the place where the Court of the Barony used formerly to be held', so there was a court room among the abbey buildings and it would have been located with a frontage on to Bimport in order to allow easy access by laymen attending the court: the bailiffs of the manors, the knights, the tenants. Therefore *the starre chamber* II 1 must have been on the north side of court B and because the surveyor worked from east to west the *wardrobe chamber* II 2 can be placed adjoining it to the west.

The wardrobe is described in the *O.E.D.* as '1a. A room in which wearing apparel ... was kept; especially a room adjoining the chamber or sleeping apartment' ... '2. The office or department of a royal or noble household charged with the care of wearing apparel ... also the building in which the officers of this department conduct their business.' The second meaning fits best this building within a large abbey.

There was certainly enough room for the *wardrobe chamber* along the north side of court B, west of the *starre chamber*. It was the longest of the courts, measuring 38½ yards (7 poles) by 20 or 22 yards (4 poles) and there was no entry from the street into the courtyard behind as in court E.

If the *starre chamber* is estimated to have been an imposing 22 yards long by 11 yards wide then the *wardrobe chamber* would have been 16½ yards in length, another large building. Why was such a large building needed to care for wearing apparel? if indeed that was really its function. It is tempting to place *the mynchen chamber* II 3 on this same north side of court B west of a much smaller wardrobe chamber.

However there is a strong argument for locating *the mynchen chamber* in court C because *mynchen* is the feminine form of monk in Old English, so it is a nuns' chamber and more likely to be found in a private court than in a public position with a frontage on to the street.

It is difficult to understand what might have been the purpose of a chamber for nuns in court C when their daily life was centred on the abbey church and the cloisters, where their dormitory and refectory were to be found and their carols or carrels (small cubicles for 'work places' or studies in a library or the cloisters of a monastery. O.E.D.).

The mynchen chamber was probably the novices' chamber, and in court C. It seems the word mynchen was still in use in 1483 when Richard III used the royal prerogative, that, at the time of his coronation, the King might nominate a nun to a place in Shaftesbury Abbey: he sent 'Elizabeth Brythe to be his mynchen.' (Sydenham 1959, 58) In this example mynchen can easily bear the connotation of novice. Elizabeth Brythe's name appears at the top of the list of nuns pensioned off 46 years later when the abbey was suppressed. (Hutchins 1774, 19)

The names of some of the remaining buildings in the Part II list (II 4 to II 12) give support to the suggestion that the novitiate was in court C. There was a second '*convent kitchen* II 12, with the house of office thereto adjoyneaunt'; and there was *a house of office* II 6, a lavatory or bath house. *The Utter Nurcery* II 8 - '3b a place in which people are trained or educated.' *O.E.D.* - seems likely to have been a building used by novices; and *the parlour* II 5 - 'an apartment in a monastery for conversations with persons from outside or among the inmates.' *O.E.D.* - would probably have been more used by novices receiving family visitors than by fully professed nuns.

Court C measured 31 yards by 22 yards and it remains now to position the Part II buildings, II 3 to II 12, around three of its sides, always keeping in mind a rough estimate of their sizes according to their functions and always conforming to any instructions included in the survey. (Figure 6).

The mynchen chamber II 3 can be placed at the north end of the east side of the court asnd next to it *the grene chamber* II 4 'with the closet of the same and the vice or stayers going to the woodhouse under the chamber.' (A vice was a spiral staircase *O.E.D.*). Next again was *the house of office* II 6 'next to the grene chamber', followed by *the parlour* II 5. *One faior lodging chamber* II 7 is described as 'in the west side of the same,' so it must have been around the corner so to speak, the first building along the south side of the court. *The Utter Nurcery* II 8 'with a brode door going in and out of the court' was 'in the west side of the said chamber', that is to say in the west side of *the faior lodging chamber* II 7. Its position was outer or utter, relative to most other abbey buildings. *Two other chambers* II 9 and II 10, 'adjoining to the same in the west end of the same rewe', complete the south side as the wording clearly implies. *The garden chamber* II 11 'with one other under and with all the woodhouses belonging and under the same' was on the west side of the court overlooking the garden with *the kitchen* II 12 and its houses of office adjacent.

The second great stable II 13 belonging to Part II is under a separate *Item* heading and is said to be 'on the west side of the great stable with hay lofts over.' Assuming the great stable is the same as *the long stable* I 11 named in the Part I list, the most likely position for the Part II great stable is across the courtyard of court B, at the back of *the starre chamber* II 1 and *the wardrobe chamber* II 2, with access from Bimport by way of the entrance to the churchyard. As will be seen from the following discussion about the 'work' buildings of all three Parts, this same entrance must have been the one in use to bring in supplies of grain and fuel.

The 'Work' Buildings in Parts I, II and III (Figure 7)

I 16	*Item*	*The maltesmen's chamber* lying in the base court
I 17		*The moyety of the grynter house*
		* * * * * * *
II 14	*Item*	*The myll house* with the stable there and the loft over the same.
II 15		One pece of *the malthouse* at the west end of the said myll house ...
II 16		with *the old laundry chamber* next to the well.
II 17	*Item*	*The baker's late chamber* with the loft over to make a pastry house withall.
II 18	*Item*	*The other moyety of the grynter house.*
		* * * * * * *
III 14	*Item*	*The Foster's chamber* and the lyme house under the same. to make a stable.
III 15	*Item*	*The old brewhouse* and *the fyer house* with all the houses
and 16		between the said brewhouse unto *the pece of the malthouse* that now standeth which is laid to the second Part above rehersed.
III 17	*Item*	*The hooper's house* to make a stable.
III 18	*Item*	*The Fefoster's Chamber* lying at the grynter house door with the woodhouse under.
III 19	*Item*	*The woolhouse* under the grynter house.

The purposes of most of these buildings are self evident but some require a word of explanation.

The grynter house: grint or grynte meant to grind: a grinter was the man in charge of a granary. *O.E.D.* So the grynter house was the granary to store corn and barley.

The Foster was the Forester, the abbey servant whose duty it was, presumably, to maintain the supply of wood for fuel.

The lyme house, according to Miss Sydenham (1959, 71) was where grass or rushes were prepared to strew on floors. In the *O.E.D.* the name lyme is given 'for grasses of the genus Elymus ... planted on sand that its roots may help to keep the sand in place', but the earliest citation for this meaning is in 1776, which makes this explanation seem unlikely. Another old word, lyam or lyme, meant a bloodhound, derived from lyam meaning a leash for hounds. This is even less likely, unless it can be supposed the Forester was also in charge of hounds belonging to the abbey. Or, of course, the lyme house could have been where lime was prepared for making mortar, or whitewashing, but would that have been suitable to convert into a stable?

The hooper was the craftsman who fitted hoops to barrels or he could have been the cooper or barrel maker as well. O.E.D.

The fefoster, according to Hutchins (1868, 38) was the Fee Forester, but he gives no further explanation. However, Charles Straton, the editor

of the *Pembroke Survey*, describes the duties of the Fee Forester of Groveley Forest. He had to keep the deer from injuring the borderers, for which he was entitled to a fee in money and the right shoulder of every deer killed in his bailiwick; he took the skin as well if he killed it himself. (Straton 1909, lxix)

The description of the abbey buildings in the 1574 *Pembroke Survey* (Appendix 1) mentions only two 'work' buildings, the brewhouse and a well house, but no well house is mentioned in the 1565 lists. On the other hand no mill house appears in the description of 1574. Clearly, there was a well and a well house as detailed in the *Pembroke Survey*. Just as clearly the abbess did not have a mill house within the abbey precinct: she had her own corn mill in French Mill Lane as part of her manor of Barton. The 1548 *Pembroke Survey* shows the miller was obliged by the terms of his copyhold to mill all the grain for the lord's own use in both Shaston and Barton without making any charge. (*Appendix 1*) An emendation is justified to make the wording in the Part II list read *well* house instead of *mill* house.

All of these 'work' buildings, outhouses, store rooms, work-shops, servants' quarters, seem to have been grouped together in one particular area because the grynter house is mentioned in all three lists and the malthouse in two of the lists. Moreover this particular area was probably one of the two or three base courts named in the survey. *The maltesmen's chamber* II 16 is described specifically as being in the base-court, though, curiously, not the other 'work' buildings.

The definition of a base-court in the *O.E.D.* is: '1. the lower or outer court of a castle or mansion occupied by the servants; the court in the rear of a farm house containing the out-buildings.' Citations are given from 1491, 1616 and 1759.

The next step is to locate the position of this base-court. Part I and Part II were given the third share of the *two* great base-courts; Part III, a third share of the *three* great base-courts. If the reference to three is taken as an error there are two to be positioned. One seems to have been in the area north of the dovehouse: the wording about the garden boundary in Part II says it ended 'four feet east of the dore coming out of the base-court of the thridde part of the said garden.'

However, the known point which can be used to fix the position of the other base court, the one with the 'work' buildings, is the well. Part II was allotted *the old laundry chamber* II 16 next to the well, which Miss Sydenham located 6 yards north of the abbey nave and about 69 yards from the east end. Her source for the information was Mr. Wilson Claridge, who owned the site of the abbey ruins before the Second World War. Mr. B. Richards of Shaftesbury is able to confirm this position for the abbey well as it was he who excavated part of it for Wilson Claridge in 1938 or 1939. In the existing abbey ruins it is on the left hand side at the top of the steps leading to the upper part of the herb garden.

The base court with the 'work' buildings was therefore in the area bounded by the north side of the abbey church and the south side of court B, by courts C and D on the west and the churchyard boundary on the east. (Figure 7) The entire area measured about 75 yards by 45 yards,

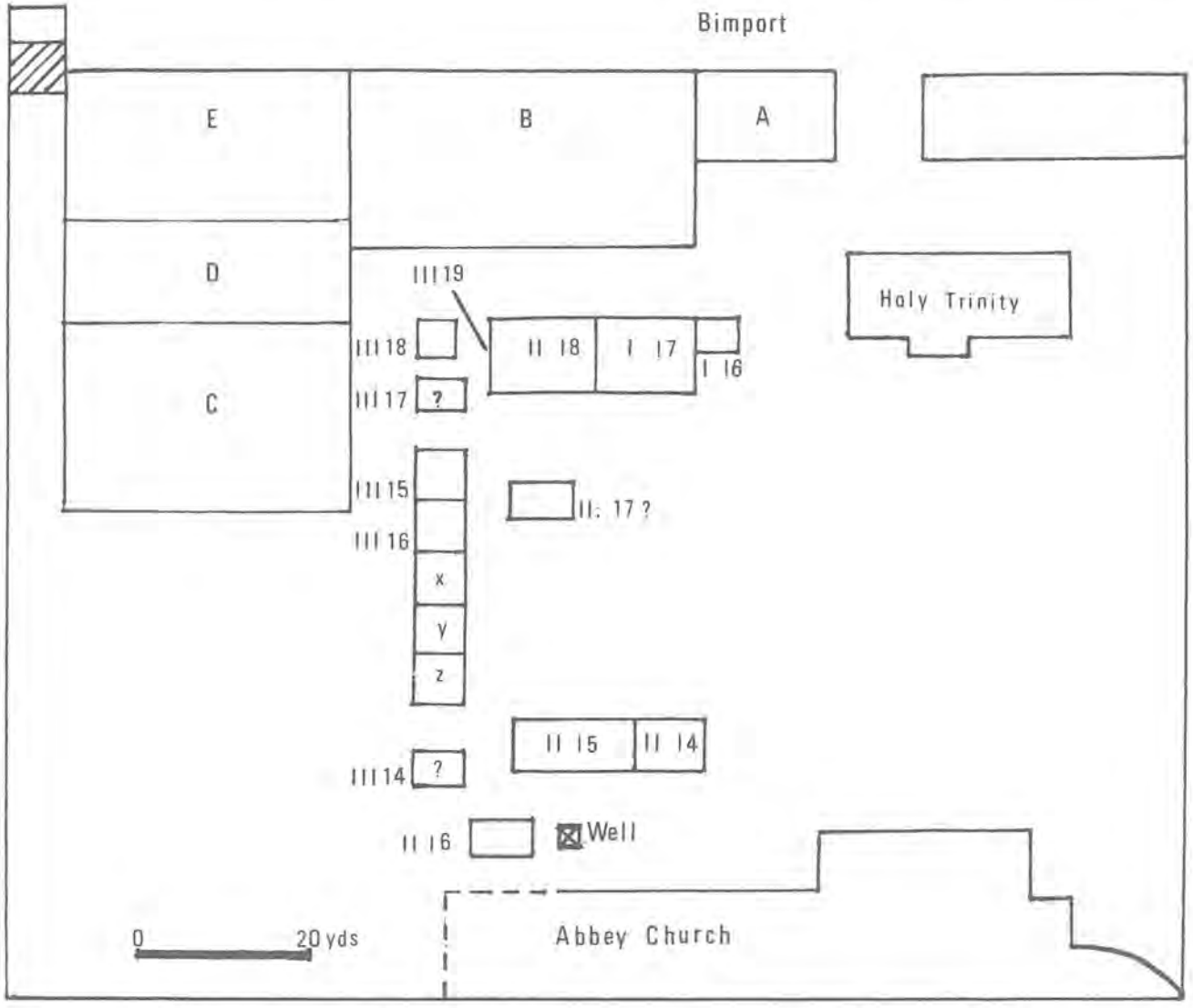

Figure 7 The 'work' buildings in the base court. Item I 16 The maltesmen's chamber lying in the base court, I 17 The moyety of the grynter house, Item II 14 The wellhouse, II 15 The malthouse at the west end of the wellhouse, II 16 The old laundry chamber next to the well, Item II 17 The baker's late chamber, II 18 The second moyety of the grynter house, Item III 14 The Foster's Chamber, Item III 15, 16 The brewhouseand Fyre house 'with all the houses (x,, y,, z) ... unto the pece of the malthouse, Item III 17 The hooper's house?, Item III 18 The Fefoster's house at the grynter house door, III 19 The woolhouse below the grynter house

which provided enough room to accommodate all the named buildings; short, easy access was available from Bimport; and the well was close by to supply the water for brewing, which seems to have been an activity involving several of the buildings.

This position was at first hard to accept. It seems too close to the church and the conventual buildings. However, given the topography of the abbey precinct with the escarpment along the south side limiting the area of level ground and with the churchyard to the east and gardens to the west it should not be surprising that the abbey buildings were crowded together. The site of the well is the evidence which commands acceptance of this area as the position of the base court with the 'work' buildings.

The next stage is to try to place the 'work' buildings themselves by dividing the base court between the three Parts as instructed in the survey and then positioning them in accordance with the way they are grouped in the lists under separate *Item* headings.

The suggestion is that the surveyor in 1565 divided the base court into three parts working from east to west, his customary direction, and allocated to Part I the buildings in the eastern third, to Part II those in the central section and to Part III those in the western third. The well comes into Part II's section and it is of interest to note that although Part I and Part III were given explicit rights of egress and regress to and from the well, Part II was not given any such rights.

This implies the well was within the ground apportioned to Part II and so provides a measure of confirmation for the suggested division into three sections.

The 'fix' from which to start positioning the 'work' buildings is the well. *The well house* II 14 with its stable and with 'one pece of *the malthouse*' II 15 at its west end and '*the old laundry chamber* II 16 next to the well' are all under the same *Item* heading and so they were all grouped together near the well on the south side of the Part II section of the base court

There is not enough information to decide the whereabouts of *the baker's late chamber* II 17 but the position of *the grynter house* I 17 and II 18 can be worked out. It was shared equally between Part I and Part II: therefore it must have been aligned east west across both the Part I and Part II sections of the base court. It follows that it must have been along the north side because the well house and its associated buildings occupied the south side. *The maltesmen's chamber* I 16 is under the same *Item* heading as 'the moyety of *the grynter house*' I 17 in the Part I list and so must be attached or close by.

The main group of Part III buildings is described as '*the brewhouse* III 15 and *the fyer house* III 16 with all the houses between the said brewhouse and the pece of the malthouse that now standeth which is layd to the seconde parte above rehersed.' If there were just three houses in between (x, y and z in Figure 7) the complete line of five buildings would occupy 27½ yards, allowing merely one pole of 5½ yards for the length of each house. It follows that this range of workshops cannot be aligned east to west in order to extend to the malthouse. There is not enough room along the south side of Part III's section of the base court. Therefore this line of five or more Part III buildings was lying north to south along the west side.

There is insufficient information to position either *the Foster's chamber* III 14 or *the Hooper's house* III 17, but *the Fefoster's chamber* III 18 was in the north west corner 'at the grynter house door' and *the wool house* III 19 was beneath the grynter house itself.

This description of the base court with the 'work' buildings occupying three sides and, presumably, with a wall along the east side to separate it from the churchyard, is the best that can be made on the small evidence in the 1565 survey and with nothing available from the 1615 map.

CONCLUSION

This enquiry has been more successful than was envisaged at the outset, although not all of the findings can be regarded as ungainsayable. Difficulties and disappointments persist : the line of the precinct boundary from Magdalene Lane to the larder house has not been established beyond all doubt; the positions of the buildings around the south and east sides of the cloisters are known only approximately; there is room for argument about *the bakehouse* I 12, *the pastry house* I 13 and *the bred house* I 14 being in court A and ignorance about the location of two of the stables in the Part III list; the siting of some 'work' buildings in the base court is far from certain; and the wording of the boundary between the gardens of Part II and Part III remains deeply obscure.

On the other hand there have been successes: the dovehouse, the brode hall, the Gatehouse, the larder house and the conventual buildings in the four courts B, C, D and E have been identified and located with varying degrees of confidence. Perhaps that is all that can be expected on the basis of the existing written evidence. Other evidence is underground awaiting archaeological investigation, especially on Park Walk in the area where the south range of the cloisters used to be.

APPENDIX 1

A Summary of the 1565 Survey

PART I

Imprimis

1 the brode hall, the buttery and the pantrey in the north ende of the same hall with the seller, thalmery which is belonging to the same and under the said hall
2 the brode chamber with the wine seller unto the same
3 the chapel
4 the long, leden chamber
5 the great chamber next to the frayt' called the frayter chamber with the oryall between these two chambers
6 the chamber next to the stayers without thall dore at the stayer head
7,8 two other chambers at the said stayer foot called the squior's chambers
9 one next to them sometyme called the Kitchyn clerk's chamber
10 the Kechyn with the houses of office belonging of old tyme to the said Kitchyn and within the same.

Item

11 the long stable with the hay house belonging to the same

Item

12 the great backhouse with 13 the pastry house and 14 the bred house and 15 the hearth house belonging to the same

Item

16 the maltesmen's chamber lying in the base court
17 the moyety of the grynter house both laid to this Part

Item

the ground of the sympree and of the church and with the east ende of the Parke
the thridde part of the dovehouse and the comodities of the same

Item

the moytie of the grene alley in the south side of the place with the thridd part of the two great base courts and the thridd parte of the moytie of the water of the well with free egresse and regresse to and from the same bering a thridd part of the chardg's thereof.

Item

the thridde part of the laundry house with the comodities uncertayn and not known as of faiors, marketts, leetes, lawdays and other courts and perquisites of the same as wayffs, strayes, felons goods, excheats for faytures.

PART II

Imprimis

1 the starre chamber
2 the wardrobe chamber
3 the mynchen chamber
4 the grene chamber with the closet of the same and the vice or stayers going to the woodhouse under the chamber
5 the parlour called the [...] parlour
6 one house of office next to the grene chamber
7 one faior lodging chamber in the west side of the same
8 one other chamber with a brode door going in and out of the court in the west side of the said chamber called the Utter Nurcery
9,10 two other chambers adjoining to the same in the west end of the same rewe
11 with one other chamber under the garden chamber with all the woodhouses belonging under the same
12 the Kitchyn sometyme called the covent kitchyn with the houses of office thereto adjoyneaunt

Item

13 the second great stable being on the west side of the great stable with the haylofte over the same

Item

14 the myll house with the stable there and the loft over the same
15 one pece of the malthouse at the west end of the said myll house
16 with the old laundry chamber next to the well

Item

17 the baker's late chamber with loft over to make a pastry house withal

Item

18 the other moytie of the grynter house

Item

the second part of the said Parke bounded 6 feete on the north east of the dore goinge out into the street of St. James's parish assending from thence to a post against the place and in the west side lying against the thridd part of the said Parke against the great oake in the south west side of the same parte and so assendeth to the south west corner of the dovehouse.

Item
the este parte of the gardeyn beying between thester parte and quoygne of the said dovehouse and assendeth northward to the north walls four foote in theste side of the dore coming out of the base court of the thridd part of the said gardeyn, with the other moytie of the grene alley above expressed in the south side of the place
Item
the thridd part of the three great base courts and the thridd part of the comoditie of the water of the well
Item
the thridd part of the said dovehouse with the comodities of the same with rights of egresse and regresse and bering the thridd parte of the chardgys thereof, the thridd parte of the laundry house and comodities of the same bering also the thridd parte of the reparacons of the same.
one third of comodities as of fairs, courts etc. all uncertain as before.

PART III
Imprimis
1 the lodging late called the Sextry with woodhouse and little court belonging
2 the Carrents chamber
3,4 and two other chambers under the same
5 the cheker
6 the next door Cheker chamber with the entry into the same where the court hath always been kept for the King with entry and re-entry into the same always reserved to the King and his assignes.
7 the Steward's chamber with the study and loft over
8 one other chamber next thereunto and over the Gatehouse
9 one other next unto the same in the west side thereof
10 the larder house and houses of office within the great gate of the said larder house and ways for entry of the same
Item
11 three little stables, one next to the said checker
12,13 and the other two between the Gatehouse and the long stable
Item
14 the Foster's chamber and the lyme house under the same to make a stable or hay house for the same thridd part
Item
15,16 the old brewhouse and the fyer house with all the houses between the said brewhouse unto the pece of the malthouse that now standeth which is laid to the second part as was above rehersed.
Item
17 the hooper's house to make a stable
Item
18 the Fefoster's chamber lying at the grynter house door with the woodhouse under
Item
19 the wollehouse under the grynter house
Item
the west part of the gardeyn lying from the est part of the quoygne of the dovehouse above said assending 4 foote in thest part of the wall comming in out of the said base court into the said thridde parte of the same gardeyn, younde from the southest quoygne of the said dovehouse and descendeth downe against the great oke in St. James's parish.
Item
the thridd parte of the said dovehouse with the comodities of the same; the thridd parte of the said two base courts; the the thridd parte of ... the water of the well with free egresse and regresse, with the thridd parte of the laundry house and comodities of the same bering the thridd parte of the chardg's thereof; all other comodities being uncerteyn as of faiors etc. as before.

The Description of Shaftesbury Abbey in the 1548 *Pembroke Survey*, 487
'The aforesaid Thomas Arundell, Knight, holds the site, the circuit and precinct of the former monastery in that same place, with all the houses, dwellings, dovehouses, curtilages, gardens, le cimprye (sic) and a close surrounded by a wall containing in total by estimation 6 acres and is valued at 10 shillings per annum and here they are not valued because they are in the occupation of the said Thomas Arundell, Knight.'

The Description of the Abbey in the 1574 *Pembroke Survey*, 516
'Matthew Arundell Esquire, Thomas and William his sons hold for the term of their lives by an Indenture dated 28th day of April in the 14th year of our Queen Elizabeth the whole site of the former monastery of Shaftesbury where the buildings have already been laid low to the ground and all the land and foundation belonging to it from antiquity called the Park, containing by estimation 4 acres: and also the garden, the hopyard and dovehouse in the same: and also the great house called the larder house now or lately in existence, a brewhouse with the lofts and granaries above and one well house below: also the well house and the use of the well in that place, the service place for the repair of the ropes of the said well for hauling water from the well and a curtilage in which the said house stands. And also the great court of the Abbey and the house called the Checker, the chambers of the Checker and the Chambers called the Carrantes Chambers and all houses under the said chambers. The neglected place where the Court of the Barony used formerly to be held. And also they hold the cemetery previously called the Abbey lytten [grave-yard] now called the Trynytye Churcheyard and also two tenements situated together next to the said cemetery for a rent for both of them of 21 shillings and 4 pence and so formerly rented to Margaret Mayowe and Edythe Mawdlen and he [Matthew Arundell] pays rent per annum in total for all the premises £9-6-8d.

Nota Quod

Note that within the site of the said late Monastery a house formerly called the Sextry and now used as a stable for the lord's horses and the loft for storing hay and a chamber for the horses' groom and a house underneath the said chamber. And one court (curtilage) enclosed with a wall and they are valued here at nothing per annum because they remain in the lord's hand and in his own occupation.'

(It is worth noting that Margaret Mayowe and Edythe Mawdlen were formerly nuns in the abbey. (Hutchins 1774, 19))

The Description of the Mill in the 1548 *Pembroke Survey*, 504
The Mill formerly belonging to the Abbey's Manor of Barton was let to Philip Pharie by Sir Thomas Arundell on these terms.

'Philip Pharie holds for himself and his assigns for a term of xxv years by an Indenture dated the ix day of the month of January in the xxxiiij th year of the reign of King Henry VIII a grain mill called Frenchemyll situated below the aforesaid manor which had formerly been similarly in the occupation and hands of the lady Abbess and he pays annually and will mill from time to time from year to year all the lord's grain which he will expend for his own use in the sustenance of his household at Shaston as well as at Barton without any charge being taken.

evj shillings viii d.'

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RCHM, *The Royal Commission on Historical Monuments*.

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Manorial Stewards and the Conduct of Manorial Affairs

J.H. BETTEY

The parish church at Tormarton in south Gloucestershire contains a large memorial to Gabriel Russell who had been steward to the Marquess of Newcastle and who died in 1663 aged 88. The inscription records that

> Here Gabriell Russell lies whose watchful eyes
> Were William Marquess of Newcastle's spies
> Over three parishes his onely hands
> Were here entrusted with his lordship's lands
> Full ninety yeares my father and I
> Were sarvants to that nobility
> But all that knew them did them witness bare
> Of their just dealing loyalty and care
> And for their comfort here below
> One and twenty children could they show

This memorial is a reminder of the importance of stewards in the efficient conduct of manorial business and in safeguarding the interests of absentee manorial lords. This was particularly true in Dorset and other parts of the west country where many manors were part of great institutional landholdings or of large estates, and where tenants seldom if ever saw the landowner. In these circumstances the conduct of the manorial court, the equitable discharge of manorial affairs, the complex business of land tenure and custom, the collection of rents and fines, and all other aspects of manorial life, rested in the hands of the steward. This paper examines some of the evidence from Dorset and neighbouring districts relating to manorial stewards, their duties, conduct and some of the problems they encountered during the late sixteenth and seventeenth centuries.

On those numerous manors where the lord was non-resident the steward was the vital link between landlord and tenants and was 'the eyes and ears' of his master; his concerns ranged from the management of the estate with its house and demesnes, the granting of tenures and the transmission of rents and fines to London or elsewhere, to the administration of charities and the mustering of tenants to vote at parliamentary elections. In 1628 the eminent lawyer, Sir Edward Coke, described the ideal steward as

> a man provident, discreet and gracious, humble and modest, pacific and temperate, who is versed in the laws and customs of the country and in the office of a steward, one eager to protect his lord's rights in all things, who has the knowledge to correct and instruct the lord's under bailiffs in their errors and doubts, who will spare the needy but whom neither entreaty nor bribery will swerve from justness or pervert from justice, whose office is to hold the courts to the manor and enquire of withdrawals of customs, services, rents, suits of court, market, mill, and view of frankpledge, and of other liberties belonging to the lord ... [1]

During the eighteenth century, with the increasing complexity of estate management, many estates employed professional stewards, and numerous manuals were produced providing instruction in their duties, but earlier stewards were drawn from various different backgrounds. Some were gentlemen such as those who managed the estates of the Crown or of the Duchy of Cornwall in Dorset and Wiltshire. Early in the seventeenth century Sir Walter Raleigh's brother, Carew Raleigh, was steward of various Duchy of Cornwall manors including Mere, Sir John Strangways was steward of Fordington, and the Earl of Pembroke was steward of the royal forest of Gillingham.[2] Others were local lawyers such as John Meere at Sherborne, the Sherfields at Salisbury, Christopher Yonge a Wareham attorney who was steward to Sir John Turberville of Bere Regis, the Napper family in north Dorset or the various attorneys from Blandford Forum who acted as stewards to the Lawrence family of Affpuddle. Some possessed small estates of their own like Samuel Stillingfleet, who was steward for some of the Earl of Salisbury's estates on Cranborne Chase, or John Dyer, gentleman, who was steward at Halstock and Corscombe for the Farmer family of Northamptonshire, or William Fry who acted as steward for the Strangways family at Abbotsbury, and whose account book covering the years 1663-70 gives a good indication of the wide range of his concerns, including notes of the numerous loans at interest which he made to members of his employer's family.[3] During the 1620s, Robert Hill, gentleman, of Stalbridge, was steward of the widespread lands of Thomas, Earl of Suffolk, while the enterprising yeoman John Salter of Coombe Keynes was the capable steward of Theophilus, Earl of Suffolk who succeeded to the estate in 1626.[4] Like the Russell family of Tormarton, some families retained the office of steward over several generations. George Starre of Bradford Abbas and his son, John Starre, were successively stewards on the estates of the bishops of Salisbury around Sherborne during the second half of the sixteenth century, and when these lands were granted to Sir Walter Raleigh, the office of steward passed to John Starre's son, Henry, and later to Henry's son, also Henry Starre, the fourth generation to hold the position.[5]

The importance and wide-ranging concerns of manorial stewards meant that many estate owners issued detailed letters of appointment and gave careful instructions on duties and conduct. In 1616 the Commissioners of the Duchy of Cornwall issued very detailed instructions to their stewards in Dorset, with notes on the method of keeping courts, receiving presentments, granting copyholds, levying fines and preventing waste or abuses on the manor. The stewards were warned against taking gifts or bribes and were told that

> They shall be moderate in the expense and charge of their Steward's dinner at keeping Courts, not using any needless expense thereat.[6]

Robert Hill of Stalbridge was given a formal letter of appointment as steward of the Earl of Suffolk in 1619, and full instructions on holding manorial courts were issued to the stewards at Broadwindsor in 1612, and at West Stafford in 1600.[7]

The custom of many Dorset manors prescribed that hospitality should be provided for the steward and his servants during their stay on the manor. Thus at Stour Provost the farmer of the demesne lands had to provide food and accommodation for the steward from King's College, Cambridge and his attendants 'so that they Tarry not there above the Space of two daies and two nightes'. Similar hospitality for officials of the Lutterell family had to be provded by the lessee of the demesne lands at Wootton Fitzpaine, while on the prebendal manor of Slape near Beaminster, the lessee of the demesne was obliged to provide 'sufficiente horse meate and mens meate for the Lessor and three servants and four horses with fuell for his Chamber for the space of three days and three nights in the yeare'. At Mappercombe the farmer of the demesne had to allow the manorial court to meet in his hall and to provide food and accommodation for six persons

1 Sir Edward Coke. *The First Part of the Institutes of the Lawes of England*, 1628, Cap. 10, Section 78. A recent book on this subject is D.R. Hainsworth, *Stewards, Lords and People*, CUP, 1992, but it has very little material relating to Dorset.

2 R.W. Hoyle, ed., *The Estates of the English Crown 1558-1640*, 1992, 178, 283-4. Among the manuals produced for stewards were G. Clarke, *The Landed Man's Assistant or the Steward's Vade Mecum*, 1715; E. Laurence, *The Duty of a Steward to his Lord*, 1727; J. Richards, *The Gentleman's Steward and the Tenants of Manors Instructed*, 1730; J. Mordaunt, *The Complete Steward*, 1761.

3 Dorset Record Office, D/FSI/206; Public Record Office C2/Jas I F11/67.

4 D.R.O. D/WLC/E3. J. Soane, 'Consolidation and Change 1541-1761' in L. Keen & A. Carreck, eds., *The Historic Landscape of the Weld Estate Dorset*, 1987, 41.

5 P.R.O. E134/7 Jas I M24.

6 D.R.O. Mus 5648 Court Rolls of Long Bredy.

7 D.R.O. D/WLC/E3; Mus 5712; Mus 2787

for four days every time the court met.[8] The obligation to provide hospitality led to a curious dispute at Stoke Abbot. During the early sixteenth century a Church House had been built there by the parishioners on land given by the Abbot of Sherborne; this was used for parish meetings and church ales, and was also the meeting place for the abbot's manorial court. It was provided with a chamber and a stable which were used by the steward and his servants. After the suppression of the monastery the manor was acquired by William Gollop and Thomas Goodge who claimed the Church House as part of their property. Their unsuccessful case before the Court of Chancery hinged on whether the building belonged to the abbot or was merely used by his steward 'out of courtesy and friendship'.[9]

Interesting information about the atmosphere and manner in which a manorial court was conducted is provided by a witness in a case over a dispute at Ryme Intrinseca in 1578. William Strode stated that the manorial court of Ryme was traditionally held in his father's house there, and that while he was sitting in the kitchen he heard the steward of the manor, Christopher Dodington, having urgent consultation with one of the tenants in the hall over the custom concerning widows' estate in the manor. Strode alleged that the steward had proposed various courses contrary to the time-honoured custom. Meanwhile the homage had been in the garden 'consultinge about their business' before coming to the court with their presentments, and preparing arguments to refute the steward's interpretation of their manorial custom.[10]

In view of the multifarious duties undertaken by stewards it is hardly surprising that the problems they encountered were equally diverse. Their major concern was with tenants and the tenure of farms, pastures, meadows, mills, warrens and all other manorial properties, with copyholds, rents, fines, heriots and with manorial customs which regulated all aspects of life and prescribed the obligations and rights of tenants. On some manors the freehold tenants or gentlemen who happened to hold some copyhold land but were very conscious of their own status and dignity could present problems for the steward. At Bere Lychett (Lytchett Minster) the surveyor noted in 1565 that 'there are two or three merchants of Poole tenants there being men of much fortune and wealth'.[11] Angel Smyth who was lord of the manor of Stratton for fifty-eight years and who, upon his death in 1625, was buried under an elaborate memorial by his own seat in the chancel of Stratton church, was a copyhold tenant of the Duchy of Cornwall manor of Long Bredy and also possessed a copyhold tenement at Up Cerne.[12] Dame Margaret Strode, widow of Sir Robert Strode lord of the manor of Parnham, was a copyhold tenant at Beaminster and led the tenants in their vigorous fight to preserve their beneficial manorial customs. John Minterne, who was lord of the manor of Batcombe, possessed copyholds at Yetminster, Ryme Intrinseca and Up Cerne.[13] An example of the sort of problems such gentlemen-copyholders could present to stewards occurred on the Earl of Salisbury's manor of Damerham in 1638. One of the copyhold tenants was Denzil Holles, himself the younger son of a peer and also member of parliament for the borough of Dorchester. The Earl's steward, Samuel Stillingfleet, complained in a letter of the waste of timber and other misdemeanours committed by Holles, and his rebuke produced a furious reply. In a letter to the Earl, Holles complained bitterly of his treatment and of the tone of the letter.

> '... nor do I think but that you have so bred your younger sons that there is none of them but would stomach the receiving of such a letter ... for beginning, middle and end, inside and outside, are all below me, who am it seems above your secretary's level, that he knows not how to write to me in such a manner as is fit. ... Don't think I will run to your officer at Cranborne, or I know not where, to beg a tree and tarry his pleasure to assign it to me. I use my own tenants better.[14]

A man of such fiery temperament and fierce pride as Holles must have been very difficult for a steward to deal with.

Since so much of manorial life depended upon custom, the steward was obliged to rely either on the uncertain or possibly biased memory of elderly tenants who would testify to what had been the custom 'time out of mind', or he could resort to the more certain evidence of the court rolls and other manorial documents. Neither source was without its problems. Tenants were not above exaggerating the rights they were allowed by custom, and in a long dispute at Beaminster during the 1620s the lord complained with some justice that '... the Tennantes are not to be thought indifferent in their own Case'. At Fordington in 1612 the surveyor, John Norden, remarked that

> ... the tenantes claime customes many and strange, how they maye be thoughte consonante to reason I leave to be considered. ...

Three years later he again complained about the difficulty of getting accurate information about the ancient customs of Fordington from 'ignorante tenants that spake by tradition and not by evidence'.[16]

Occasionally stewards and surveyors found it difficult to persuade tenants to give evidence or to reveal the details of their customs. At Long Bredy in 1650 the farmer of the demesne lands John Mitchell, who had formerly been the steward there, put every obstacle in the way of the surveyor and encouraged the tenants not to co-operate, 'Soe that Mitchell by himself and others hath done what in him Lyeth to hinder our Trust and Proceedings in the said mannor'.[17] On the heathland at Stoborough in 1585 the tenants refused to show the surveyor the bounds of their common and would not allow him to measure it, because they did not want 'the quantities thereof to be knowen by measuringe'.[18] At Shapwick and Kingston Lacy in 1552 the surveyor noted that

> 'I am in dowte that all the tenantes of this mannor be not come in to Answere this Court because they made a stay by reason of Sir John Rogers.[19]

When a commission came to Admiston in 1684 to survey the lands there which were the subject of a dispute in Chancery, the farmer of the demesne would not allow them to complete their business but gave them 'morose language' and told them they were mistaken if they thought they could 'fright the country with wax and parchment'.[20]

Much more trustworthy were the written records of the courts, custumals, surveys and tenancies, and these were accordingly kept with great care. The manorial court records of Fordington were lodged in the tower of St George's church, and the tenants refused to give the key to the Duchy of Cornwall surveyor, John Norden, in 1612.[21] At Gillingham the manorial records were also kept in the parish church and were in a chest which had five locks, the keys being kept by various tenants.[22] In most manors, however, the records were carefully kept by the lord himself or by his steward. Even this did not bring total security, for some records were deliberately plundered or destroyed during the Civil War, and long-serving stewards

8 King's College, Cambridge, MSS D218 Survey of Stour Provost 1575; Somerset Record Office, DD/L16/91 Survey of Wootton Fitzpaine 1636; Dorset Record Office, Photocopy 386 Survey of Slape 1649; P.R.O. REQ2/Chas I Bundle 24.
9 P.R.O. C3/69/2.
10 P.R.O. REQ2/72/46.
11 D.R.O. Photocopy 168, (Bury St Edmunds & West Suffolk Record Office 449/3/26.)
12 D.R.O. Photocopy 362 Survey of Long Bredy 1615; D13/M1 Court Book of Up Cerne; *Somerset & Dorset Notes & Queries*, XXIX, 1973, 253-55.
13 P.R.O. C3/485/2; LR2/207.
14 Calendar of State Papers, Domestic, 1638, 393 No 55; 1638-9, 400, No 2.
15 P.R.O. C2/Jas I B16/40.
16 P.R.O. LR2/207; C2/Jas I W17/55 D.R.O. Photocopy 362.
17 P.R.O. E317/Dorset 9; C2/JasI S30/6.
18 British Library, Add. Mss 29, 976 ff97-8. For a similar example see D.R.O. Mus 9389.
19 P.R.O. DL42/108, f28.
20 *Somerset & Dorset Notes & Queries*, XIV, 102-4.
21 P.R.O. LR2/207.
22 P.R.O. E178/729. For similar examples see P.R.O. E133/1/336; E133/1/337; C7/100/22.

sometimes regarded the records as their own property, and refused to release them when their period of office came to an end. When the Parliamentary army took Corfe Castle in 1646 they systematically destroyed the records they found, and after the war the Bankes family had difficulty in re-establishing their rights over the estates.[23] An even greater loss of ancient records occurred at Cranborne. Before Robert Cecil acquired the manor early in the reign of James I the manor house lay empty and ruinous,

> 'no man did inhabit in it, but the doors lay open, and every Man that would might go into the Records and take what they pleased, insomuch as schoolboys tooke some to cover their bookes, and glovers and other men took others.

Two court rolls of the Honour of Gloucester were later found in a clergyman's house in Dorchester, 'made into a bag which covered the jack in his kitchen'.[24] Further destruction of records occurred at Cranborne in June 1643 when a troop of royalists broke into the manor house.

> They broke into the Housekeeper's study and tooke his bookes, bookes of accompts and writings, and divers other things of good value. They brake open a trunke of court rolls, pulling some apeeces, and scattering others about the house and court, offering some for sale and throwing others in the river.[25]

Problems caused by the refusal of stewards to surrender custody of manorial documents are legion. Early in the seventeenth century the lord of the manor of Wootton Fitzpaine, Anthony Trevelyan, instituted proceedings in Chancery to recover the court rolls and other evidence concerning his property from the former steward, Simon Frye, who had refused to surrender them.[26] Similarly, Marie Farmer, widow of Sir George Farmer, had to resort to legal proceedings to recover the deeds, court rolls and other documents relating to Halstock and Corscombe. John Dyer had been the steward there for many years, but on his death his son, also John Dyer, refused to release any of his father's records.[27]

Elsewhere, stewards used their position and their possession of the written records to their own advantage. At Up Cerne in 1577 the steward, Clement Loade, combined with Leonard Stourton of Langford in Wiltshire to conceal the fact that the lady of the manor, Jane Stourton, had died in Suffolk, and collected rents and fines, and granted leases as though she was still alive.[28]

Even more blatant was the case of Carew Raleigh, brother of Sir Walter Raleigh. Carew Raleigh was steward of the Duchy of Cornwall manor of Mere in Wiltshire, and an enquiry in 1600 revealed that he had been taking bribes from the tenants in return for granting copyhold leases for very low entry fines.[29] Like many other Duchy properties at this time, Mere was very badly administered, and in 1617 the surveyor, John Norden, wrote that 'Such is the fruite of tolleration of abuses as time hath nowe wroughte in this mannor a general immunitie and meerly usurped freedom from anie kind of forfeiture'.[30] A long and complex dispute at Corfe Mullen in 1615 revealed that Martin White, who had acted as steward there for his father, had not inherited the property as he claimed but that it had gone to pay his father's debts. Those tenants who had paid their rents and fines to him, and who had engaged in building work and other costly ventures on the strength of leases which he had granted, lost their money as well as their tenancies.[31]

In assessing fines, levying heriots and other dealings with tenants, stewards had to steer a careful course between the desire to obtain the maximum return for the lord, avoiding the danger of being deceived by the cunning ruses of tenants, while satisfying the lord's desire for parliamentary votes. Moreover, tenants with a grievance were not above appealing over the head of the steward to the lord of the manor or to the royal courts for redress. Two major examples of complaints by tenants about the conduct of stewards and the response of landlords will be discussed later, but there are numerous other instances. At Yetminster in 1586 the tenants of Upbury manor complained to their landlord, Thomas Minterne, who was one of the prebends of Salisbury cathedral, that the steward was attempting to change their customs which incidentally were very beneficial to the tenants. Similarly at Beaminster which was another ecclesiastical manor the tenants combined to fight vigorously any attempt by the steward to curtail their beneficial customs, and raised money by a levy on all tenants to fight their case in the Court of Chancery. Robert Napper, gent., who acted as steward at Holnest for John Fitzjames of Leweston, was presented with a difficult problem in 1589 over the death of a copyhold tenant, John Crase. The landlord had the right to take Crase's best beast as a heriot, but while on his death bed 'after he was prayed for in the church and past hope of lyff', Crase gave away his two oxen, which were his most valuable beasts, with the 'intent to defraud the lord of his heriott', and the steward had then to take proceedings in the manorial court against the widow.[32] In 1558 Thomas Boxley of Tarrant Hinton complained to the Court of Requests that the manorial steward was unlawfully depriving him of the possession of a copyhold tenement. Boxley claimed that he could get no justice in the manorial court, 'the said Steward being Judge there ...'.[33] When Humphrey Weld acquired the widespread estates centred on Lulworth Castle in 1641 he found that on some manors the farmer of the demesne lands had been allowed to gain undue influence and rights. In 1643 he received a pathetic complaint from the copyhold tenants of Winfrith Newburgh, addressed to him at his house in London, complaining of the actions of Roger Clavell who had leased the demesne lands. They alleged that Clavell had encroached on their lands, impounded their sheep and kept far more sheep on the downland and common than he had any right to do.

> Honrd Sir, Itt is the desire of us your poor servants that you would be pleased to putt a stoppe to the lawe at present and set it right until your Hon. please to come into the country againe, at which time we doubt not but we your poore Tennants of Winfryth shall make it appeare to your Hon. that we stand not so much for ourselves as for your privileges and right.[34]

Some years later, in 1667, Humphrey Weld summarily discharged his steward, Thomas Oakley, but the faded document does not reveal the grounds of his dismissal.[35]

Attempts by stewards to safeguard the lord's interests could also lead to complaints. At Downton near Salisbury John Snow and his son, Leonard Snow, acted as stewards for Sir Joseph Ashe and later for his widow Lady Mary Ashe throughout the late seventeeth century. John Snow was much concerned about squatters building hovels on the manorial common lands, and made various attempts to prevent this, even demolishing some of the illegal dwellings. This provoked a fierce complaint from a local freeholder, Benjamin Wyche, who wrote to Lady Mary Ashe in 1694 urging her not to turn the poor out of their homes and not to listen to the advice of John Snow 'who is little moved with the Cryes of the poore where a little small interest is concerned'. His letter included a list of eleven families who were threatened with removal.[36]

Another complaint about a steward was sent to Humphrey Weld II in 1706, apparently by a neighbouring landowner,

23 P.R.O. C8/184/13; C22/328/21; C22/328/35.
24 Salisbury Mss, Hatfield House, Cranborne General 1620-29.
25 Salisbury Mss, Hatfield House, General 72/12 12 June 1643; Cranborne Accounts to 1649, 43/9.
26 P.R.O. C2/219/21.
27 P.R.O. C2/Jas I F11/67.
28 P.R.O. REQ2/33/98. For a similar case at Tarrant Hinton in 1558 see P.R.O. REQ2/34/5.
29 P.R.O. E123/28/fol.358; E178/2457.
30 P.R.O. E317/Dorset 9.
31 P.R.O. C2/Jas I C30/14.
32 P.R.O. REQ2/191/50; C2/Jas I B16/40; C3/485/2 D.R.O. D/MAY/A1.
33 P.R.O. REQ2/34/5.
34 D.R.O. D/WLC/E130.
35 D.R.O. D/WLC/E7.
36 Wiltshire Record Office 490/090.

although the letter has only the initials T.G. It contains a long condemnation of the steward, stating that he was totally unsatisfactory and inefficient.

> It is said that he hath for the present and future done you great damage in the gratifying of his own Revenge upon a Freeholder in one of your mannors.

It was also alleged that he had prevented enclosures and other improvements which would have been beneficial to the lord, had unreasonably increased rents, would make no proper allowance for damage caused by the lord's deer, had spread slanders about Humphrey Weld, and had tricked copyholders into accepting leases, thus forfeiting the security of manorial custom 'contrary to all rules of Christianity and Honesty'. The writer, T.G., suggested that soon no one would be willing to take farms on the Weld estate, 'you lye under a public Odium by having made your Neighbours and Tenants your enemies'. Finally Humphrey Weld was told 'he will make you a poore Lord and himself a rich Steward'.[37]

The survival of a few account books kept by seventeenth-century stewards, together with occasional letters, provides an indication of the range and variety of their concerns, over and above their main task of estate management. Some stewards were wealthy men who could engage in money-lending on a considerable scale. The notebook of William Frye of Abbotsbury, steward to the Strangways of Melbury, shows that he lent money, generally at 6 per cent interest, to numerous individuals including several members of the Strangways and other gentry families in Dorset.[38] John Bennett of Motcombe, who was steward to the Arundell family of Wardour, also lent money at 6 per cent interest to several people including the very large sum of £4,000 to Lord Arundell. Bennett's salary as steward was no more than £50 per annum so he obviously had other sources of wealth, since his many duties on the widespread Arundell estates must have occupied much of his time. Interestingly, although he was employed by a leading Catholic family, he remained a Protestant, calling his daughters by the Puritan names of Patience and Repentance, although he christened one of his sons Arundell. Bennett's disbursements on behalf of the Arundells ranged over all aspects of estate management, care of the house and gardens, expenses in legal disputes, purchase of food for the household and payment of servants wages, to the costs of black cloth to hang around the chancel of Tisbury church when Lady Arundell was buried or a gratuity of 2s 6d given to Lord Shaftesbury's coachman 'for showing my Lord Arundell the way to Lullworth Castle' where presumably he was going to visit Humphrey Weld who was his nephew by marriage.[39]

Both Frye and Bennett were concerned with farming on some of the demesne lands, and also with improvements such as enclosures, drainage work, woodland management and stock-rearing. John and Leonard Snow, who lived at Loosehanger in Downton parish south of Salisbury, were also much involved in agricultural improvement as stewards on the estate of Sir Joseph Ashe who lived at Twickenham and visited Wiltshire only occasionally. In particular they were the driving force in creating a series of water meadows complete with channels, drains, weirs and hatches along the river Avon, transforming the landscape and farming of the estate, in spite of a barrage of criticism from neighbours, tenants, millers and others.[40] John and Leonard Snow were father and son, and when his father retired in 1698 Leonard Snow became chief steward. Part of their duties involved the purchase of livestock and goods for the Ashe family and sending foodstuffs and other items to Twickenham. Their account book records the purchase of large numbers of sheep at various fairs including Weyhill, Salisbury, Wilton, Blandford, Stalbridge and elsewhere; many of the sheep were sent to dealers in the home counties to be fattened for the London market. In 1692 two black horses were purchased for Lady Ashe's coach at the large sum of £18 each; while cheese was obtained from dairymen in north Wiltshire and from several places in Somerset for dispatch to London. By the end of the seventeenth century the practice of sending coinage to Twickenham, with all the attendant risk from highwaymen, was superseded by bills drawn on Hoare's bank in London.[41]

Sir Joseph Ashe represented the borough of Downton in Parliament and the Snows were responsible for keeping him informed about local opinion and gossip and managing election business on his behalf. The same function was performed at Gillingham by Thomas Greene who was steward to Sir John Nicholas during the late seventeenth century. Like other stewards Thomas Greene had to pay constant attention to the voters to ensure their continued support for his master. He also administered charities, distributed beef to the poor, helped needy and deserving persons and bolstered his employer's reputation for benevolence in every way he could. On the other hand he was ruthless in his efforts to protect the woodlands against trespass by the poor of Shaftesbury.[42]

When a landlord was non-resident an important part of a steward's duties was concerned with sending rents and goods to the London residence or elsewhere. The account book of Lord Poulett of Hinton St George shows a constant stream of goods being sent up to London by the regular carrier services which plied from Crewkerne and Yeovil. The carrier's charge for such goods was 1d per pound weight.[43] Rents from the Sydenham estate at Brympton D'Evercy near Yeovil were sent to London by various carriers and occasionally by drovers. One London carrier Abraham Furser, was frequently employed during the 1630s and charged 10s 0d for every £100 which he carried. Stewards of the Weld, Strangways and Cecil families also regularly used carriers to transport rents to London or to Hatfield.[44]

Finally, two case studies will illustrate the difficult path which stewards had to tread in safeguarding the interests of their masters and ensuring the profitability of the estate while not totally alienating the tenants. At Puddletown the manor belonged to Henry Hastings who lived at Woodland, and a tight control over manorial affairs was kept by the steward, William Willis. This included an ambitious scheme which was agreed by the manorial court in October 1629 whereby the tenants combined together to turn the Broadmoor into a water meadow with all the necessary large-scale work of levelling and the building of ridges, drains, bays, dams, sluices and watercourses. It must have required great diplomacy on the part of the steward to persuade the tenants to agree to such an expensive and elaborate scheme. Shortly afterwards, however, William Willis fell foul of some tenants and especially of Henry Arnold, a prominent freeholder and farmer of Ilsington Farm, who became the principal critic of Willis. Led by Arnold the tenants complained to Henry Hastings in 1630, and alleged that Willis had dealt harshly and unjustly with them. Hastings evidently took the complaint seriously and appointed a commission to enquire into the charges. The commission consisted of John Foyell or Foyle esquire of Dorchester, George Stile of Mappowder and Hastings' son, William. These gentlemen were accepted by the tenants and spent a long time at Puddletown examining witnesses, interviewing the steward and viewing the places in dispute, and 'bestowed greate paynes and large tyme in the examination therof', before making their report to Henry Hastings. Many of the allegations involved Henry Arnold or his son, also Henry Arnold, of Ilsington. They included disputes over rights in the meadows, access to a washing place for sheep on the river Frome, access to a chalk or marl pit, removal of bound

37 D.R.O. D/WLC/E12.
38 D.R.O. D/FSI/Box 206 Account Book of William Frye 1663-65.
39 W.R.O. 413/507 Account Book of John Bennett 1660-65.
40 W.R.O. 490/909, 910, 911, 912, 913 Letters between John & Leonard Snow and various memebrs of the Ashe Family 1680-91; 490/842 Account Book of John & Leonard Snow 1686-1727.
41 *Ibid.*, See also *Victoria County History, Wiltshire*, XI, 1980, 73-5.
42 John Ryland's Library, Manchester, Letters of Thomas Greene of Gillingham to Sir John Nicholas 1698-1701.
43 S.R.O. DD/PT40 Lord Poulett's Account Book 1651-55.
44 D.R.O. D/WLC/M71; D/WLC/M72; D/FSI/2/5 Salisbury Mss, Hatfield House, Accounts 160/5.

stones, removal of fences and the illegal cutting of trees at Ilsington and the eviction of a copyhold tenant, John Best, for allowing his house and barns to fall into total decay. The conclusions of the commission which were written into the Court Book in March 1631 as a permanent record, were that there was no truth in any of the allegations against the steward and that the abuses complained of were the fault of the tenants themselves. They reported that

> ...the said William Willis hath been mutch abused by those scandelous aspersions caste upon him. And that he hath donn very good service both to the lord and tenants generally ... to the greate increase and advancement of each man's lyvinge respectively ...[45]

Interestingly an agreement in the manorial court in 1636 ordered that all tenants who had meadow land in Broadmoor should pay £1 each to William Willis in return for the costs he had borne out of his own pocket for many years in maintaining the banks of the stream.[46]

The problems of another steward also illustrate the difficulties which beset the office. Richard Sherfield who was the brother of the prominent Salisbury lawyer and fanatical Puritan, Henry Sherfield, became steward of the earl of Salisbury's estates on Cranborne Chase in 1620. Richard Sherfield's high-handed methods, his insistence on maintaining the Earl's rights and his determination to ensure that the Earl was not cheated by the tenants soon made him very unpopular, and complaints began to reach the Earl at Hatfield House. Many of the complaints seem to have been orchestrated by Thomas Hooper, lord of the neighbouring manor of Boveridge and a man of much influence in the district. Richard Sherfield referred to him as 'that old devel who lives on the hill at Boveridge'.

45 D.R.O. D/PUD/H2 Court Book of the Manor of Puddletown 1624-38.
46 *Ibid.*, 10 November 1636.

The complaints were all somewhat vague, and the things complained of do not seem to have been illegal or even reprehensible. Typical was a letter sent to the chief steward at Hatfield by one tenant, Oliver Hill, in 1623

> I doe protest I doe lament from my hart to hear the general complaint of all manner of persons from honorable worth and soe down to the beggar of the tyrranicall deling of his (the Earl's) deputy under Steward, which the world taxeth much unto his Lordship, saying that it can nott possible be but that his Lordship must nedes be acquainted therewith ...

Notwithstanding his wealth and national position, the Earl evidently regarded good relations with his tenants and political influence in the locality as of great importance and, like Henry Hastings, he appointed a commission to enquire into the complaints. They could find nothing illegal in Richard Sherfield's dealings with the tenants on the Cranborne estate, but nonetheless reported that

> We find Mr Richard Sherfield his courses and carriage so directly opposite to your truly noble disposition by pressing and enforcing such strict penalties and lawquirkes, that he hath justly drawne on him the hate and ill opinion of that parte of the country, and will not be a fitt man for your Lordship to continue in that place of understeward as we conceive.[47]

This seems a harsh decision and a poor return for Richard Sherfield's energetic pursuit of the utmost profit for the Earl from his estate. The outcome reflects the delicate situation of a steward, and the vulnerability, as well as the power of the office. Like the Russells at Tormarton, the successful steward needed not only 'watchful eyes' on behalf of his master, but also a reputation for 'just dealing, loyalty and care'.

47 Salisbury MSS, Hatfield House, Cranborne General 71/29. For an account of Henry Sherfield's career see J.H. Bettey 'Henry Sherfield of Salisbury: A Seventeenth-Century Puritan, Lawyer and Agricultural Innovator', *Hatcher Review*, 9, 1980, 19-27.

The rural parish church in Dorset in the eighteenth century

GLANVILLE J DAVIES

The solid appearance of the rural parish church in Dorset surrounded by a well tended churchyard has all the appeal of timelessness; a building which has stood for centuries seemingly untouched by change and indifferent to passing fashion. But if the parishioners of the eighteenth century could see these present-day churches, they might have difficulty in recognizing them as 'their' parish churches, and they might also find it difficult to understand the form of worship conducted within. The present-day church owes much in appearance and ritual to the nineteenth century, for it was then that the buildings were transformed and the form of worship altered. The Victorians in particular attacked the problems of the church buildings with tremendous zest: they rebuilt walls, removed or added aisles, redesigned roofs, exposed features which may have been hidden for centuries, altered doors, re-cut windows, standardized the seating, and frequently repositioned plaques and monuments. Around the church the ground was cleared, levelled, and seeded, and churchyard paths re-laid. The result of all their efforts transformed the buildings and rescued the churches from decay, and even in some cases from imminent collapse. But their attention was not only directed to the building, for while re-fashioning the bricks and mortar, they also created in form and ceremony the church which present day worshippers recognize.

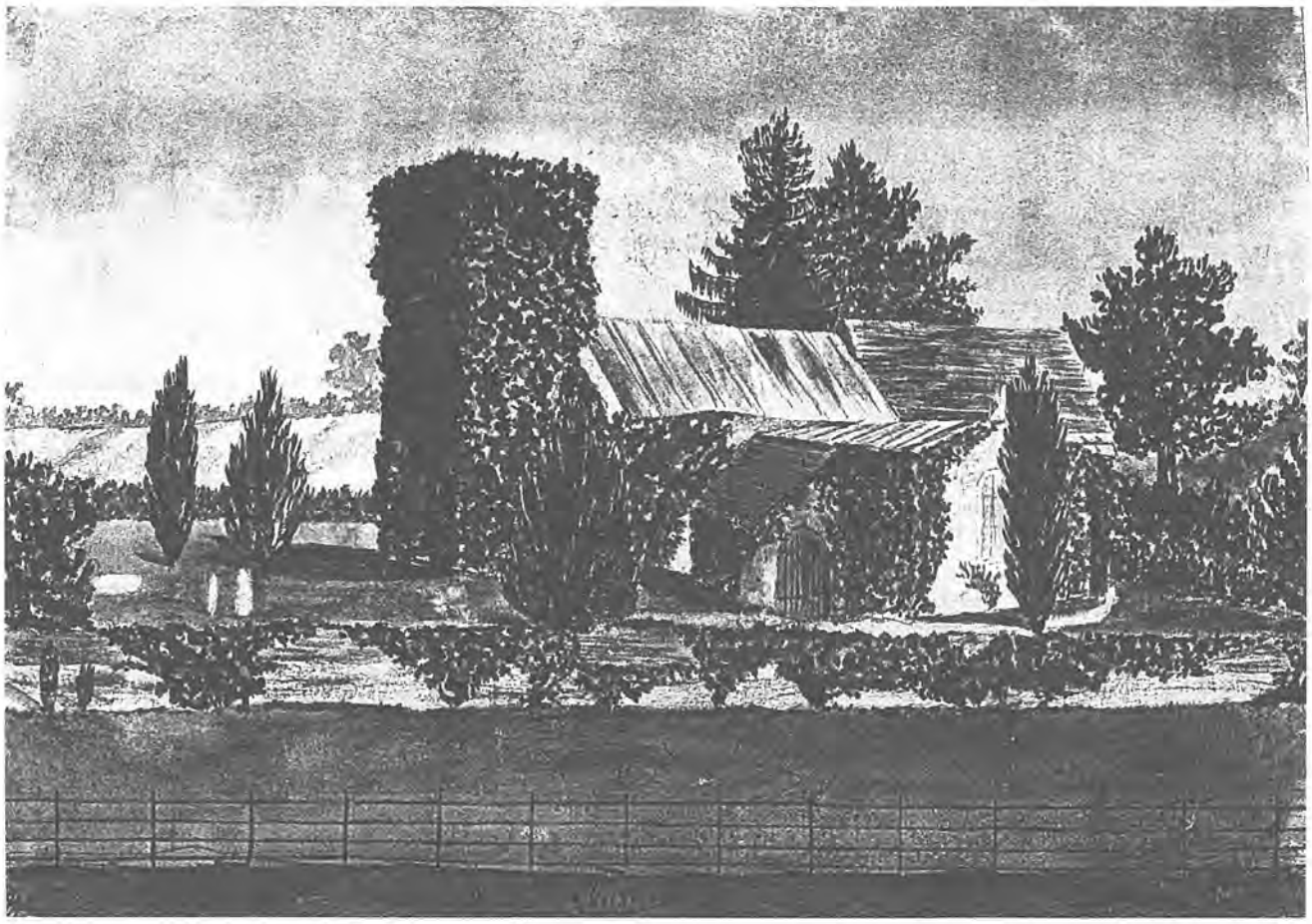
The rural parish churches in Dorset had survived from the days before the Reformation, and by the beginning of the eighteenth century many were suffering from old age, and 'annoyances which must gradually bring them to decay', and they urgently required renovation. Churchwardens everywhere struggled to keep the medieval buildings in a fit state of repair, but timber rotted, masonry crumbled, and the heavy sheets of lead covering the roofs were cracked and split, and could no longer offer protection against the weather. This state of affairs was common throughout the parishes of England, despite the strenuous efforts of Churchwardens, and the situation did not generally improve during the eighteenth century. In 1710, Bishop Fleetwood was convinced that unless there was an awakening of the public conscience about the condition of the churches, most would, within the next century, collapse. A decade later, Thomas Lewis spoke of the 'Sin and Shame to see so many Churches so ruinous and so foully decayed'. Even by the middle of the eighteenth century little had changed, for it was then that Bishop Secker complained that in the churches which he visited he found 'water undermining and rotting the foundations, earth heaped up against the outside walls and shrubs growing upon them ... floors meanly paved, and the walls dirty or patched.' The interior of many parish churches, unheated, inadequately ventilated, and with leaking roofs, were 'damp, offensive and unwholesome'.[1] Puddles of rainwater constantly formed on the floors, and damp penetrated the walls so that they resembled 'a large map ...portioned out into capes, seas and promontories, by the various colours by which the damp have stained them.' A visit to a rural church was often a depressing experience. In 1787, George Horne visited a rural church ' to which one miserable bell, much like a small porridge pot, called half a dozen people, which numbers comprehended the congregation. The church-yard itself was low and wet; a broken gate the entrance ... The inside of the church answered the outside ; the walls green with damp; a few broken benches; with pieces of mats dirty and very ragged; the stairs to the pulpit half eaten away; the communion table stood upon three legs; the rails worm eaten and half gone.' Undoubtedly, many Dorset churches were in a similar state, and they needed urgent attention. In Stock Gaylard the floor had sunk, the soil of the churchyard was well above floor level, and festoons of vegetation hung from the ceiling. When Gillingham church was restored in 1837 the builders had to raise the floor of the Nave by eighteen inches to combat the damp which invaded from the church-yard, and this was a common practice during much restoration work. Studland, like many rural churches, was 'exceeding damp'; at Hampreston the dampness was so persistent that the pews rotted; Wyke Regis was 'in very bad repair'; Radipole church was held together with iron cramps; and in Portland by 1753 the worshippers agreed that the church was now in a 'Ruinous Decay'd State', and needed immediate re-building. That worshippers would wish to enter some of the buildings at all was surprising, for many of them were 'in a condition in which not one of those families would suffer the worst room in their house to continue for a week'.[2]

Churchwardens were responsible for the maintenance of church buildings, but church-rates and pew rents provided only sufficient income for minor repairs, periodic cleaning, and an occasional whitewashing of the walls. Although there were many church expenses, building work represented the greatest drain on church income. Churchwardens were in the unpleasant position of having to assess the work to be done, and then having to exhort the rate-payers to provide the funds for what was most urgent. Church leaders were sympathetic, for they knew that generally 'the Church-wardens are willing to lay out the money as they ought, but the Parishioners unwilling'. However, the financial burden upon the rate-payers of the parish was occasionally quite considerable, and property holders who were responsible for paying church rates must have faced the prospect of major church repairs with some concern. Unfortunately, most rural parishes relied upon only a relatively small number of such rate-payers. Milton Abbas with seventy-one ratepayers, and Beaminster with one hundred and thirty nine, were exceptional, and they were always in the happy position of having surplus funds when the year ended. In Wool in the 1770s the degree of trust between Churchwardens and rate-payers was quite remarkable, for the building repairs could be carried out without first summoning every ratepayer and seeking agreement, and the Churchwardens would pay the bill out of their own pockets, to be reimbursed after the rate had been collected. Most rural parishes, unfortunately, relied upon a dozen people or less for their rate, and the total collected was so small that there was rarely even a small surplus for the incoming Churchwardens.[3] Langton Herring, with seventeen rate-payers, ranked high among the rural parishes, yet over 80% of the annual income was earmarked for building repairs. At Kington Magna, with only ten rate-payers, the Churchwardens had a meagre income, yet 75% of that had to be reserved for building work. These percentages represented the usual level of demand, so any further building work meant that the rate-payers had to dig deeper into their pockets. Some wealthier parishes, like Beaminster, Symondsbury, and Gillingham, could afford 'extras' which the smaller rural parishes could not provide. At Puddletown the Churchwardens could afford to pay for the cleaning of pews and an annual treatment with linseed oil, and at Milton Abbas the churchyard was regularly mowed, but this standard of care could not be provided in most parishes. Churchwardens everywhere had regular yearly expenses to consider, and in the smaller parishes these absorbed all the remaining income. They had to allow for Visitation fees, expenses after attending consistory court at Blandford, Pentecost money, the purchase of bread and wine for communion, books of prayers for fasts and Thanksgiving, washing and mending the

1 Thomas Secker, *Eight Charges Delivered to the Clergy of the Dioceses of Oxford and Canterbury* (Third ed. ,1780), pp. 151 - 154. William Fleetwood, *Charge to the Clergy of St Asaph* (1710), contained in *A Compleat Collection of the Sermons, Tracts and Pieces of all Kinds* (London, 1737); Thomas Lewis, *The Obligation of Christians to Beautify and Adorn their Churches* (London, 1721), p. 30.

2 William Cowper, essay on 'Country Congregations', reprinted in W. Peacock, *Selected English Essays* (Oxford, 1903), pp. 168-172; George Horne, *Olla Podrida* (London, 1820), Essay XXXIII, Sat, Oct. 27, 1787 , Notes by L.L. Yeatman: Composed by my father at the time of its (Stock Gaylord) Restoration, 1884', Dorset Record Office (DRO), PE/SKG AQ 1; Hutchins, *The History and Antiquities of the County of Dorset* (3rd ed 1861- 74, re-issued, EP Publishing, 1973)', I, p. 652; DRO, Hampreston Churchwardens Accts, PE/HAP CW 1; J.H.Bettey, 'Bishop Secker's Diocesan Survey, *Proceedings of the Dorset Natural History & Archaeological Society*, vol 95, pp. 74-5; Portland Churchwardens Accounts, PE/PTD CW 1/1.

3 Secker, *Eight Charges*, p. 175; DRO, Milton Abbas Churchwardens' Accts, PE/MIL CW 2; DRO, Beaminster Churchwardens' Accts, PE/BE CW 1/2; DRO, Wool Churchwardens' Accts, PE/WOO CW 1/1.



Langton Long Blandford church, which was demolished in 1867. A watercolour from the Shipp Album *volume 2 (1859) Dorset County Museum watercolour W521.*

surplice and other church linen, and the copying of the register. In addition, there were generally payments to the Clerk, the Sexton, the Ringers, the Mole-catcher, if one had been appointed, and the parish share of Gaol money. The list was formidable enough, but the exact total was almost impossible to calculate in advance, for parishioners caught vermin and these had to be paid for out of church funds, and people in distress begged for charity, and no churchwarden could be certain how many such demands might be made in the coming year. No one, therefore, welcomed the news that the church required major repairs, for the Churchwardens could not be expected to provide much out of the annual income, and the bill would certainly have to be met by extra collections of the church rate. Major building work, though demanded by the Archdeacon, could only begin after a parish meeting at which the rate would be assessed. The parish Constable, or some leading parishioner, was then ordered to collect the rate from every property holder, freehold or leasehold, who held land or houses in the parish. The principle followed was that 'he is a Parishioner where his lands are, and not where he lives', so residence in the parish was not a requirement. The amount to be collected was decided after the cost of the repairs had been estimated, and the number of collections was agreed before the building work began. Agreement by everyone responsible would have to be obtained by the Churchwardens before any work could be carried out, or any rate collected.[4]

In 1701 the church at Melcombe Horsey needed extensive repairs, and between 1701 and 1711 the unfortunate rate-payers in that parish were forced to pay eighty rates. But, excessive as this seems, the eight ratepayers of Bettiscombe had to agree to one hundred and twenty rates in only eleven months in order to re-roof the church. In a parish where annual contributions normally totalled less than three pounds the ratepayers of Worth Matravers agreed to pay twenty-one rates over a six year period, but even with this response the bill of fifty-three pounds could not be paid off, and it lingered as a gradually diminishing debt from 1741 to 1752. In Wool in 1755, when the church needed a new ceiling and extensive repair work, the outgoing Churchwardens could leave only 17/3d, and because a single church rate raised less than four pounds, additional rates had to be imposed. After six rates in three years the repairs were finally paid off, and the closing account in 1758 showed how closely the Churchwardens had calculated their expenditure, for there was only one halfpenny remaining! Two rates were demanded in 1759 in order to provide funds for normal expenses, but the experience for everyone - rate-payers and Churchwardens - had been traumatic, and further expenditure was not looked for: the singing gallery was re-painted, but paid for out of the Vicar's pocket, and charitable payments fell from the usual sixpence per person in 1755 to twopence per person in 1759.[5]

The problem for Churchwardens was always one of managing their expenditure. Any savings which they could make eased the burden on the hard pressed rate-payers. At Hampreston in 1753, when the church was re-roofed, the Churchwardens sold lead and surplus timber and contributed over fifty pounds to meet the bill of ninety pounds. In Chaldon Herring in 1789 the Churchwardens were even more adroit at their accounting: the roofing bill amounted to over seventy three pounds, but the sale of lead raised a sum which placed the rate-payers in the happy position of only needing to raise about seven shillings, and the annual single rate of £3.15.7d. could easily absorb that. Payment for vermin accounted for a significant proportion of the annual church income, particularly where the level of poverty and under-employment drove the parishioners to seek ways of supplementing poor relief. Most rural parishes found that vermin accounted for some 15% of total expenditure, and a partial or

4 DRO, Langton Herring Churchwardens' Accts, PE/LAH CW 1; DRO, Kington Magna Churchwardens Accts, PE/KIM CW 1/1; DRO, Puddletown Churchwardens' Accts, PE/PUD CW 1/3; J.Shaw, *Parish Law* (London, 7th ed. ,1750) Ch. 26, Sect. 8.

5 DRO, Melcombe Horsey Churchwardens' Accts, PE/MCH CW 1/1/1; DRO, Bettiscombe Churchwardens' Accts, PE/BET CW 1; DRO, Worth Matravers Churchwardens' Accts, PE/WMT CW 1; DRO, Wool, PE/WOO 1/1.

complete stop on all payments was the means by which many Churchwardens, especially in north Dorset, limited the drain on their church income. Parishes could too easily find that expenditure on vermin could run out of control. At Lydlinch, in the early 1720s, vermin accounted for over 43% of total expenditure, and the Vestry decided to stop all payments for hedgehogs, polecats, and stoats. The Churchwardens had had a busy year, and when they reviewed their annual expenditure they felt that some recognition of the excessive payments for vermin ought to be made. At the foot of their annual accounts they wrote:

> Mark well this page you'll see along accompt made up with Vermine which you'll find surmounts Two hundred thirty nine and something more - perhaps the like was never seen before.[6]

Additional pressure was put on the Churchwardens to provide funds for building galleries for the singers, and creating more light in churches by re-glazing, or piercing the walls to create new windows. Church buildings were poorly lit, and many impoverished parishes, unable to afford the cost of glazing, tolerated 'windows ill glazed, and ... in part stopped up', and this must have contributed quite considerably to the gloomy impression within the church, even during the height of summer. To utilise what little daylight was available, evening services generally began not later than three o' clock, and churches could rarely be used after dusk. Despite this, not everyone approved of the search for better lit church interiors, for some thought that a church was 'more solemn and majestic for having a modest degree of gloom within it'. Most church-goers, however, wanted brighter interiors, and approved of the latest fashion of replacing the old lead diamond panes with modern, square cut glass. Newly built churches with wide, spacious windows - like that at Charlton Marshall, or more impressively, that at Blandford Forum - must have been widely admired as being in the fore-front of fashion. As portions of church funds were set aside for re-glazing, local glaziers and builders found themselves in demand to undertake the gradual conversion of windows. At Sturminster Newton 29% of the annual income between 1772 and 1774 was set aside for reglazing; at Fifehead Neville the window arches were rebuilt before being glazed; and new windows were created in the Nave at Studland. Money, too, had to be found for the galleries which had been fashionable since the mid-seventeenth century as places for extra pews, but which proved popular in the eighteenth century as singing galleries where singers and musicians could gather together. At Sturminster Newton the new gallery was erected and partly paid for by selling pews in the old gallery, but at Langton Herring and Melcombe Horsey, as in most other parishes, the galleries represented extra cost - generally some £8 to £17 - and the rate-payers had no alternative but to agree to additional rates being imposed.[7]

Although all churches had patrons who held the advowson, and therefore had the right to present a priest to the living, few patrons, despite their wealth, regarded the church as any part of their financial responsibility, or its maintenance as being their concern. Advowsons were widely regarded as part of the lay patrons' estates, and they were purchased because the patron wished to appoint a family member to the living, it was an opportunity to display social superiority, or because the glebe and tithes offered a return on an investment from which only the incumbents' small stipend had to be paid. In Fontmell Magna, for example, the patronage was invested in the Dibben family throughout the eighteenth century, and the living, worth over £100 per annum was held by Thomas Dibben, James Dibben, his son, James, and Richard Dibben. Despite this constant connection with the parish church, the Dibbens made no direct contribution towards the maintenance of the building, for patrons could claim legal exemption from all demands for repairs. The examples therefore in which patrons provided funds for re-building were very few: in 1714, Lord Digby contributed £200 towards the re-building of Castleton parish church; in 1733 the Framptons rebuilt Moreton; and in 1788 the Welds - albeit reluctantly - rebuilt East Lulworth church. Prominent parishioners sometimes provided contributions which far exceeded their normal church rate, but generally all major building work done in the parish churches was financed through the willingness of the parish ratepayers to make additional contributions, with occasional examples of public subscriptions raised to assist the parish. At Portland in 1753 they raised money for the re-building of the church by imposing a tax on all pew seats. All principal seats paid a tax of 3/- per quarter in addition to a normal annual rent; all 'second seats' paid 2/6d. each quarter; and all 'inferior seats', 2/- a quarter. Over a period of four years they proposed, through this scheme, to raise £1,200 to add to the public subscription. At Seaborough the fourteen ratepayers who normally raised just over £12 a year, had to find almost £115 in one single year's collection to pay towards the refurnished church, and so they were forced to announce a public subscription scheme in order to raise the money. Many rural churches, among them Winterborne Stickland, Langton, and Bloxworth, were rebuilt through the generosity shown in public subscriptions.[8]

Part of the annual church income was provided by those parishioners who paid a rental for private pews. Following the Reformation 'manie had seated themselves as they thought fitt and some of the meanest ... had gotten the best seates, and wold sitt with persons of farr better reconing. Many also challenging places in one seate and so satt in heapes without anie respect of Decency or Order'. This led, during the seventeenth century to a general re-pewing, and Churchwardens were given the responsibility of allocating seats according to social rank. Inevitably, this led to the building of private pews, and after the Restoration these became common in all churches. The patron might expect a family pew in the Chancel, but the Chancel was part of the glebe, and the allocation of seats in the Chancel lay in the gift of the incumbent. Money paid for seats in the Chancel was not put into church funds. In some parishes the rate payers - who, as in Tyneham, openly referred to themselves as 'the principal inhabitants' occupied the pews near the Chancel arch, so that they had a commanding view of the altar and the pulpit. The labouring class occupied common benches in the west end of the Nave - sometimes, as at Tarrant Rushton, segregated according to sex - with the children seated on one legged stools, and the poor seated behind them, sometimes on benches which were clearly labelled 'For the Poor'.[9]

Many private pews were elaborate creations with high sides and brass rails from which hung curtains. These pews, which 'might have served for parlours', accommodated entire families, and were sometimes regarded as extensions of their homes, with cushioned seats and carpeting. The high sides and curtains around these pews guaranteed complete privacy, and it was not surprising that many clerics considered them 'a screen for irreverence '.

> Tall, spacious seats the wealthier people hid, And. none had view of what his neighbour did.

At Stock Gaylard, the Churchwarden, sweeping aside the curtain to summon the reader, embarrassed a family member who was busy with his chamber pot! But these 'high and unsightly' pews took up much floor space, with little left for the lower classes, who sometimes could not kneel between their benches. With elaborate curtained pews at the front and rows of common benches almost hidden behind, church interiors would have presented an odd appearance to present-day church-goers. Unlike the modern seating where all worshippers can see the altar and the pulpit, many parishioners in the eighteenth century found

6 DRO, Hampreston Churchwardens' Accts, PE/HAP CW 1; DRO, Chaldon Herring Churchwardens' Accts, PE/CHH CW 1/2; DRO, Lydlinch Churchwardens' Accts, PE/LYD CW 1/1.

7 Secker, *Eight Charges*, p.153; *The Weekly Entertainer*, (Sherborne), Mon, Sept 1, 1794; DRO, Sturminster Newton Churchwardens' Accts, PE/SN CW 1/1; Hutchins, *Dorset*, I, pp. 269, 652;

8 C. Hill, *Economic Problems of the Church* (Granada Publishing Ltd., 1971), p. 134; Hutchins, *Dorset*, I, pp. 378, 402-3; III, p. 560; IV, p. 205 , DRO, Portland, PE/PTD CW 1/1; DRO, Seaborough Churchwardens Accts, PE/SEA CW 1/1.

9 Shaw, *Parish Law*, Ch. 25, Sect 4: empowers the Incumbent to 'have a due Regard to the Qualities of the ... Parties' when allocating seats. W.J.Hardy, 'Remarks on the History of Seat- Reservation in Churches', *Archaeologia*, No. 53 (1892), pp. 95-106; N. Evans, ' A scheme for re-pewing the parish church of Chesham, Bucks in 1606', *The Local Historian*, Nov, 1992, vol 22, No. 4, pp. 203-207, quoting J.W.Garrett-Pegge *ed*, *Records of Buckinghamshire* (1908-9); *Notes and Queries for Somerset & Dorset (SDN&Q)*, Vol. IV, Dec 1895, Pt. XXXII, pp. 347-8. '

Swanage church about 1825. Family pews filled the Nave and left little room for the ordinary parishioners.

themselves in seats where they could see neither. At Gillingham before restoration in 1837, of some two hundred seats in the church 'not one hundred are within sight of and hearing of the reading desk and pulpit', and the pews, 'mostly appropriated to different houses' were generally 'much larger than the owners require'. Many elaborate family pews remained in churches well into the nineteenth century, often until the late Victorian period, when restorers stripped the church interiors and fitted new pews in the nave. At Buckhorn Weston, for example, the high sided pews were not cut down to 'a more convenient shape' until 1870.[10]

Seating reflected divisions between parishioners of different social classes, and so did the funerals which took place in the churchyard. The cost of the funeral reflected the wealth of the deceased person's family. When Dr Browne Willis of Blandford directed in his will that his funeral charges should not exceed £20, he specified an amount which would guarantee a funeral befitting someone of his status, but would avoid ostentation. But whatever the social status of the deceased - above that of the common poor - all funerals were expected to include certain rituals and practices. Most parishes, for example, provided a black shroud which covered the coffin on its journey from the lych-gate, and every parish had an established practice of bell ringing during a burial. The tolling of the bell reinforced in many places the superstition that the soul did not leave the body until the bell was rung. In most Dorset parishes a local custom dictated how many peals were to be rung for each man, woman, and child being buried, and the age of the deceased was often recorded by single peals as the procession made its way across the church-yard. Bearers and mourners were provided by the family of the deceased, and, depending upon the wealth of the family, certain additional tokens of remembrance would be included. The will of Ann Floyer of Yetminster in 1751 instructed that her funeral was to take place 'in a private but handsome manner' and that the mourners were to have 'hatbands, scarfes, shammy gloves, escutcheons and rings of a guinea value each'. That would have been considered a proper form of burial for someone of her social position, but when the status of the deceased was not reflected in the funeral ceremony, the outrage of everyone in the parish was obvious. Fordington parish was shocked in 1713 because the Vicar was 'buried by his mother in a most shameful, scandalous and pernicious manner', wholly out of keeping with his status and position in society. In this instance, in addition to the obvious expenditure on the funeral and the customs appropriate to the status of the deceased, the parish might also have expected the Vicar to be buried within the church, for such intramural burials were always available to 'those of the best sort of the parish'.[11]

While all parishioners had the right to bury their dead in the churchyard, permission to bury within the church building could only be granted by the incumbent who held the freehold of the church. Intramural burial was a privilege which was rarely granted, though over many centuries there were so many such burials that in some churches the buildings became honeycombed with graves, until, as at Wyke Regis, ' the dead lay almost end-to-end and side-by-side'. The patron and his family could expect burial within the Chancel, and some leading parishioners

10 DRO, PE/SKG AQ 1; *SDN&Q*, XV, Pt CXIII, March, 1916, pp. 24-16; DRO, Buckhorn Weston Vestry Minutes, PE/BCW VE/I.

11 Hutchins, *Dorset*, I, p. 177; J.E. Vaux, *Church Folk-Lore* (London, 1902), p. 159; J.S.Udal, *Dorsetshire Folk-Lore* (1922, reprinted, 3rd ed, Dorset Books, 1989) pp. 182, 273; J.Berthoud *et al*, *St Andrew's church, Yetminster*, (Yetminster Local Hist. Soc., 1987), p. 51; DRO, Fordington St George Register, PE/FOR (S.G.) RE 1/1; Bishop Middleton, cited in C.Hill, *Economic Problems*, p. 168.

might be granted permission to erect family vaults in the Nave or aisles. But, unlike the churchyard, where parishioners had no choice of plot and where there were no rules governing the depth of the grave or the condition of the corpse, those who sought intramural burials were supposed to brick line the vaults and enclose the corpse in a lead lined coffin so that unpleasant odours would not disturb the church-goers. Unfortunately, many incumbents did not, or could not, because of the social status of the family concerned, insist upon these conditions, and the result was that many burials were made in ordinary coffins positioned uncomfortably close to the surface. In Stock Gaylard, the Yeatman family pew covered a grave where the body lay only inches beneath the surface, and in 1661 a Dorset priest, while kneeling before the altar, almost disappeared from view as the grave beneath him collapsed. While these examples were mercifully rare, it was true that all intramural burials disturbed the church-goers and created considerable disruption to normal church life. Vaults meant the removal of pews and the lifting of pavement slabs, and even after the burial was over 'it is impossible that the Pavements can be made good again presently, for the Earth is generally let alone awhile to Sagg or Settle ... and if the Ground be ramm'd down, it' must take up some Time before it be closed ...'. In recognition of this disturbance, and the need to re-lay the paving slabs after the completion of the vault, the Churchwardens could expect to be given a sum for 'breaking ground', and this sum, generally 6/8d, was added to the church funds. Incumbents, however, were free to vary this sum, and at Melbury Osmond in 1756 it was resolved that no-one was to be buried in the church unless the family paid 25/-.[12]

Because the incumbent's freehold extended to the churchyard, he was allowed to graze his cattle and sheep there, and the bishop could only advise generally that sheep were to be preferred to cattle because they did less damage to the newly dug graves. The decision where a person should be buried rested entirely on the incumbent and his Churchwardens. Leading parishioners might reasonably expect to be allocated a prime position, generally near the church entrance, where generations of church-goers might see the tombstones and remember the dead. Fortunately for all incumbents, Dorset parishioners did not appear to share the superstition which was held in some parts of England that the north side of the churchyard was the 'wrong', or 'Devil's side', so the priest was free to use his churchyard as a burial ground without any superstition limiting its use. Once the plot had been agreed, the grave was dug by a Sexton, but the task was not onerous in a small parish, for burials rarely exceeded six each year. Extra helpers would be needed in the large parishes, like Beaminster or Blandford, because in large and well populated parishes the burials generally averaged fifty-three per year. While the Sexton was paid to dig graves, not to maintain the entire churchyard, he was nevertheless encouraged to be mindful of the overall appearance, and it was recommended that he spread the earth from newly dug graves so that there were no unsightly mounds. However, many rural churchyards admirably fitted Gray's description as 'this neglected spot', for they generally looked unkempt, with heaped earth and overgrown shrubbery, or resembled quagmires, with penned cattle trampling the ground underfoot. It is probable that many rural churchyards resembled farmyards. In 1820, the Churchwardens of Stourpaine, despite having paid for the work of their Sexton, paid Henry Ball for thirty-three days work simply to level the churchyard. This amount of effort by one labourer may have been typical of the uneven and neglected condition common in many rural churchyards. Paths across such land would have been impossible, and because the carriage of a coffin over rough and uneven ground was so difficult, many parishes went to the expense of a bier, and this was kept in the church. Normally, the corpse, dressed in a shroud or enclosed in a coffin, was carried to the churchyard by the family, deposited within the lych-gate, and then for convenience of transport over the rough ground, lifted on to a bier for the procession towards the grave. A coffin, if not provided by the family, might be loaned by the church for the procession over the churchyard, but there was no compulsion for the family to provide a coffin: the Book of Common Prayer recognized only the body of the deceased, and the church made no requirement for shrouds or coffins. Few clerics saw any reason for carrying the body into the church, especially if the deceased had had a contagious disease, so as the procession wound its way from the lych gate the priest would walk in front reciting the Order for the Burial of the Dead from the Book of Common Prayer, or, as at Corfe, would wait by the graveside inside 'a churchyard Box' for his part of the ceremony to begin.[13]

Because most graves had no markers or memorials, it was not unknown for new graves to be dug - albeit unintentionally - through older graves, and remnants of coffins, shrouds and bones to be lifted to the surface.

> Here nauseous Weeds each Pile surround
> And Things obscene bestrew the Ground;
> Skulls, Bones, in mouldering Fragments lye
> All dreadful Emblems of Mortality.

A visit to a churchyard in the eighteenth century could be an unpleasant experience, for as one correspondent admitted : 'when I walk through a churchyard and view a gravedigger throwing up the bones, and even the flesh of his fellow creatures, to be handled or trampled upon by some rude boys, it gives my nature a shock it is scarce able to bear.' Perhaps because such sights were occasionally to be seen, memorials and plaques embellished with emblems of mortality - skulls and bones - which nowadays seem so macabre, held little terror for parishioners to whom such sights were commonplace. In some churches, as at All Saints, Wyke Regis, bones were gathered together, carried into the church, and stored in a small room under the tower, Generally, however, the Sexton placed the human remains in a corner of the churchyard to await a convenient time for re-burial.[14]

Table tombs were favoured by those parishioners who were not permitted an intramural burial but whose wealth elevated them socially above their neighbours. Although most gravestones belonged to the middle class, local masons often supplied tombstones, some with quite elegant carvings, to labourers' families. However, most common labourers and their families were buried in plain coffins in unmarked graves. Below those in status came the poor, and they, unable to afford the simplest trappings of a funeral, were buried at the expense of the parish. Unfortunates who had drifted into the parish and died there, but who did not 'belong ', were, perhaps, the least favoured, and they were only grudgingly buried in the churchyard, with the cost kept to a minimum. In Nov, 1750, the Overseers of Puddletown collected the unidentified body of 'Ye Woman that died in Waltisen farm', in a dungpot - a low wheeled cart for carrying manure - and unceremoniously buried her without the expense of a shroud or a coffin.[15]

But while it was true that the church played an essential part in the lives of all parishioners - recording their births, solemnizing their marriages, Baptising their children, and then officiating at their burial - not all parishioners regularly attended church. All the evidence suggests that fewer than one third of all adults attended church regularly, and that only some 12% of the population were communicants. Because congregations were sometimes small, Churchwardens did their best to encourage more people to attend, and they had few scruples regarding their methods of doing so. In small parishes there were few parishioners who could successfully undertake the work of Churchwarden and Overseer of the Poor, so the offices were often rotated. This meant that a leading parishioner would often carry the responsibility for both offices, though in practice in different years, and he could, in his thinking, frequently unite them. Poor relief was doled out in the church porch after Sunday service, so it was but a short step for the Overseer, bearing in mind his problems as a Churchwarden, to insist that the poor should first

12 DRO, PE/SKG AQ 1; *SDN&Q*, IV, Part XXXII, Dec. 1895, p. 346; T. Lewis, *Seasonable Considerations on the Indecent and Dangerous Custom of Burying in Churches and Church-Yards* (London, 1721), p. 58; DRO, Melbury Osmond

13 Thomas Gray, 'Elegy Written in a Country Churchyard'; DRO, Stourpaine Churchwardens' Accts, PE/SPN CW 1; DRO, Corfe Castle Churchwardens' Accts, PE/COC CW 8.

14 T. Webb, *A New Select Collection of Epitaphs* (London, 2 vols, 1755), anonymous poem in Preface to vol. I; *Gentleman's Magazine*, vol 17, Oct 24, 1747, p. 487; C.P.Domoney, *History of All Saint's Wyke Regis* (Dorset, 1969), p. 17.

15 DRO, Puddletown Overseers' Accts, PE/PUD OV 2.

Ibberton church about 1890. Few small rural churches would have survived into the twentieth century without the constant care of Churchwardens, and the restoration and re-building carried out by the Victorians.

attend the service, otherwise they could not qualify for poor relief. At Seaborough and Manston such an arrangement was formally agreed by the Vestry, but it is probably true that in many rural parishes in Dorset this was the accepted custom.[16]

Behaviour among eighteenth century worshippers was somewhat different from that which would be acceptable today. Present-day church-goers are generally respectful and reflective when attending a church service, but in the earlier period this was not always to be found. Many would enter the church 'when the service is half read' or 'when it is near conclusion', and 'stare and gaze about them, laugh or whisper at their prayers, and betray great vanity and lightness of mind'. As they entered the church it was fashionable for men to bow towards the altar and for women to curtsey, but that single act of respect then seemed to absolve many of them from any further participation in the service, and they concentrated thereafter on greeting their neighbours and openly exchanging 'Ceremonies, Bows, Curtsies, Whisperings, Smiles, Winks, Nods, and other familiar Acts of Salutation '. Those whose attention wandered might have found some distraction in the texts inscribed on the walls, for Canon 82 directed that texts should ' be written in convenient Places ; and ... the ten Commandments be set upon the East End of every church'. These texts were to serve as 'useful Matter for Meditation to the People before the Service begins ; and may afford them useful Admonition, when their Eyes and Thoughts are wandering in the Course of it', and so they were deliberately chosen for their educative value. Among those uncovered in Dorset churches during restoration work are passages from the Gospels, like Matthew xix, 14, and others like Ecclesiastes x, 20: 'Curse not the King, no, not in thy thought; and curse not the rich in thy bed chamber; for a bird of the air shall carry the voice and that which hath wings shall tell the matter.' But texts made no impact on those with wealth and social position, for nothing could prevent them from behaving like Sir Roger de Coverley, who thought nothing of interrupting the service to berate one of his tenants, who stood to survey the congregation while others knelt at prayer, and who settled himself to sleep when the proceedings bored him.[17] Such behaviour was to be found everywhere in England. In 1711 a foreign visitor ventured into a church and was astonished to observe that 'instead of paying their Worship to the Deity ... were most of them bowing and curtsying to one another, and a considerable number of them fast asleep.' Behaviour in church was the responsibility of the Churchwardens, but while they might exercise control over the labourers and their families, the poor on their parish benches, recalcitrant children and stray dogs, they dared not admonish all those superior to them in social rank. Sleepers of lowly status could be prodded awake with a long handled pole, on which might be inscribed 'Awake Thou that Sleepest !', but no such admonition could be directed towards those in the family pews. But it was hardly surprising that eighteenth century church-goers talked, slept, or like the women of Corfe Castle, knitted, during the service, because in addition to the notices, the sermon, the prayers and psalms, for the first half of the century they had to sit through a reading of a Homily - 'godly and wholesome doctrine' - by a parish clerk, and the Homily on Almsdeeds, for example, took some twenty-five minutes to deliver when read with deliberate diction.[18]

Priests disapproved strongly of the irreverent behaviour which many parishioners displayed, but much of the problem stemmed from the 'irregular form and inequality of the seating'. Most people did not face the east end of the church. As the clerk, or the priest, stood at the table in the east end of the Nave, they

16 J.Wickham Legg, *English Church Life* (Longmans, 1914), pp. 38-39. The subject of popular religion during the eighteenth century requires more research see R.W.Malcolmson, *Life and Labour in England, 1700-1780* (Hutchinson, 1981), p. 84; *SDN&Q*, XXII, Part CXCII, March, 1937, p. 119; DRO, Seaborough Churchwardens' Accts, PE/SEA CW 1/1; DRO, Mans ton Churchwardens' Accts, PE/MAN VE 1/1 .

17 William Sherlock, *A Practical Discourse of Religious Assemblies* (London, 1681), p. 178; *Spectator*, No. 460, Aug 18, 1712; Secker, *Eight Charges*, p. 181; *SDN&Q*, I, Part I, March, 1888, pp. 14-15.

18 *Spectator*, No. 50, April 27, 1711; *SDN&Q*, IV, Part XXIX, March, 1895, p. 232; W.K.L. Clarke, *Eighteenth Century Piety* (S.P.C.K., London, 1944) p. 81.

had their backs towards those seated in the Chancel, and facing them were the high sided pews, often arranged so that they ran the length of the Nave, with families facing each other. Only the benches of the labourers and the poor faced the altar, and they were too distant, too obscured from view, and too humble in social rank to form a focal point for the clerk and the priest. Gradually, it became the custom for everyone to turn towards the east during the Apostle's Creed, to stand when the Gospel was read, and when certain hymns - *Te Deum*, and *Jubilate* - were sung, and to kneel during prayers, but uniformity of behaviour in all aspects of the service - something fundamental to good discipline where large numbers of people may be involved - was sometimes slow to be adopted. Part of the problem lay in the fact that High and Low churchmen at the beginning of the century tolerated different habits. Church authorities tried to encourage parishioners to take off their hats when entering church, and to remain bare-headed during prayers. Some parishioners of Puritan inclination insisted on wearing their hats during the sermon, and in some parishes there were people who insisted on wearing hats throughout the service. In 1716 it was still thought necessary to warn people against walking into church with their hats on, but local habits were sometimes difficult to overcome. Some Low churchmen disapproved strongly of the sign of the cross, of kneeling at the Eucharist, or of wearing a surplice, but bishops generally found that if these local customs were ignored, then the conduct of worshippers might gradually improve as priests concentrated upon the larger issues. Matters did improve, and Churchwardens later in the century therefore found themselves under instruction ' to see that all who resort to the Church do, in Time of Divine Service and Sermon, behave themselves orderly, soberly and reverently ... and that none walk, talk, or make any Noise ... and that none sit there with their Hats on, or in any other indecent or irreverent Manner.'[19]

While the Victorians confined church business to divine service and religious ceremonies, parishioners of the eighteenth century used the parish church as a meeting place and a focal point for the entire life of the community ... 'the whole parish politics being generally discussed in that place either after sermon or before the bell rings' Though some clerics deplored it, the time of church attendance was the only opportunity for the parishioners to receive public information and to hear items of news. One correspondent in the *Gentleman's Magazine* complained that in winter time the church was unpleasantly cold, but 'the ministers of our church are sometimes obliged to lengthen out that service to a very unmeet proportion; not only by taking in the occasional offices, more or fewer as cases may require; but also by reading acts of parliament, proclamations, banns, briefs, citations, articles and canons of the church, declarations after inductions, letters or orders from the bishop ; publishing excommunications; executing the injunctions of public penance etc., divers of which ... may fall in at the same time, and require to be dealt with on the same day.' The correspondent might have added that the cleric was also required to deal with announcements about Vestry meetings, church rates, poor rates, days of appeal remaining for house and window tax, enquiries about lost goods, announcements of names of those who had left the parish and those newly arrived, and even such matters as hue and cry and the descriptions of wanted people The list was sometimes so extensive that it covered 'Frivolous, unbefitting, and sometimes Ridiculous Things', and the congregation could be hugely entertained, even to the point of open laughter. While all these matters militated against a sober and contemplative mood within the church, the subsequent sermon, invariably 'dry, methodical and unaffecting; delivered with a most insipid calmness' might even have encouraged conversation as a useful distraction, or sleep as a merciful release.[20] No cleric wanted to be accused of 'enthusiasm', for the church responded strongly to any suggestion of Protestant fanaticism, and so the delivery of the sermon was always deliberate, precise, and unemotional, and the subject matter always treated in a grave and learned manner. As evidence of their learning, and to ensure that the sermon was sufficiently profound, the clerics often 'besprinkled all their sermons with plenty of Latin and Greek', and treated them as some kind of literary exercise, choosing perhaps to read aloud one of the many printed sermons available from the pens of Ogden, Johnson, Seed, Jortin, and Tillotson, in all of which duty and obedience were stressed, and 'the watchword ... is morality'. Under such circumstances it was difficult for the priest to feel deeply involved in his sermon, or even perhaps to understand fully the significance of what he was reading. The congregation probably understood very little for the sermon was often read 'more carelessly, and worse, than a common boy would, taken out of Sunday School'. The sermon was chosen not for its relevance to the parishioners' lives, but often because it would not cause offence to the patron and leading parishioners, for as all clerics knew, 'there are some Texts and Points of Doctrine that we dare no more touch upon, than take a Bear by the Tooth, for fear of offending some of the new-fashioned Gentry.' Curates had to be especially circumspect for they had to consider the incumbent as well as the patron, and they guarded their words lest they gave offence, for they had to 'conceal their Parts and preach the very worst Stuff they have ... for fear of raising his Envy, and destroying themselves by their own Brightness. He only must be allowed to Shine in the Pulpit, and it will be deemed Presumption... to pretend to Rival him there.' Much of the sermon was probably incomprehensible to a congregation largely composed of rural workers, but perhaps they looked more for a display of erudition in their clerics rather than explanation in religious matters.[21]

Many rural churches relied upon visiting curates, for many parishes could not provide sufficient glebe land and tithes for a resident cleric's income. Kimmeridge had no resident or curate in 1774, and was being served once a fortnight by a neighbouring minister. Even then, when a resident was appointed later in the century, his stipend was so low that it had to be voluntarily augmented by the patrons. Some parishes were so poorly provided that they had no house available for the priest. In Affpuddle the house was 'a cottage of the meanest sort, usually tenanted by some poor labourer', and Bryanston had no house available, nor any glebe land to provide a cleric's income. In such parishes the parishioners were entirely dependent upon visits from a resident of a nearby, wealthier, parish. Some parishioners found themselves some distance away from their parish church, and so relied upon a nearby chapel: St Giles, and Stanton St Gabriel were chapels in Whitchurch Canonicorum, and Kingston was a chapel attached to Corfe Castle. Those parishioners had to rely upon occasional and sometimes irregular visits by curates. Even where a parish had a resident, services were sometimes not regularly held. The churchwardens at Corfe Castle complained that from Nov 1768 to June 1769, and again from Nov 1769 to Oct 1770, they were provided with only six Sunday services. Regular services, they pointed out, were held only when Mr Pitt was present in England and likely to attend the church. Rarely did parishioners find, even in the most wealthy parishes, that the church provided more than one service every Sunday, and three communions a year - Easter, Christmas and Whitsuntide - the minimum required under the canons of 1604. Where a cleric was obliged to take a second parish because of the low income which he derived from one living he alternated his Sunday service, serving one church in the morning, and the other in the afternoon, providing that they were parishes close enough together to allow him to travel between them on the same day. This morning and afternoon arrangement was fairly common, and continued up to 1848 at Steeple and Tyneham.[22]

19 Thomas Bisse, *Decency and Order in Public Worship* (London, 1723) p. 58; C.J.Abbey and J.H.Overton, *The English Church in the Eighteenth Century* (London, 2 vols, 1878) II, p. 462 Edward Wells, *Discourse concerning the Great and Indispensable Duty of a Decent and Reverent Behaviour in Church at all Times* (London, 1716) p. 11; John Eachard, *Grounds and Occasions of the Contempt of the Clergy* (London, 1670, p.34.

20 *Gentleman's Magazine*, vol 19, 1749, p. 414; John Johnson, *The Clergyman's Vade-Mecum, or an Account of the Ancient and Present Church of England* (London, 1715), p.294; A.T.Hart, *The Eighteenth Century Country Parson* (London, 1944), p. 41, citing Oliver Goldsmith's essays.

21 Thomas Stackhouse, *The Miseries and Great Hardships of the inferior Clergy and a Modest Plea for their Rights and Better Usage* (2nd. ed., London, 1740), pp. 120-121; Anon, *Reflections on the Clergy of the Established Church (London*, 1798), pp. 57-80

22 Hutchins, *Dorset*, I, pp. 208, 264-5, 568; DRO, D/RWR/L 5, DRO, Questions and Answers on the Rights and Duties of the Rector of Corfe Castle, 1771; SDN&Q, IV, Part XXXII, 1985, pp. 350-1.

Church services consisted mainly of prayers, a sermon, and a Homily, and the congregation had the opportunity to take part when the priest and the parish clerk led them in the singing of the psalms. Because 'many in the congregation cannot read ...the minister or some other fit person ... do read the psalms, line by line, before the singing thereof.' In theory this was admirable, but in practice, this line-by-line method of singing was unsatisfactory, for it was difficult for the congregation to remember the pitch of the note, the singing was periodically interrupted by the reading, and the congregation, quite understandably, was reluctant to join in. The result became a ' shameful mode of psalmody almost confined to the wretched solo of a parish clerk, or to a few persons huddled together in one corner of the church, who sung to the praise and glory of themselves for the entertainment, and oftener to the weariness of the congregation.' Little assistance could be given to the congregation to help them in their singing, for in 1644, Parliament had ordered 'the speedy demolishing of all organs' and few churches had managed to replace them. Only the wealthier parishes could have contemplated raising the money which was needed. Increasingly, therefore, church authorities began to encourage the formation of parish choirs. The intention was that the choir would lead the congregation, and everyone would then join in the singing of the psalms. The problem in all churches was that the building had never been designed to accommodate choristers. Singing from the Chancel was impossible because so much space was taken up with private pews, and the voices of the choristers did not carry easily into the main body of the church. With pews and benches occupying the entire floor space of the Nave and aisles, there was little room for the singers to assemble. The best solution, and the one most favoured by parishioners, therefore, was a gallery, erected above the floor and over the west end of the Nave. A gallery had the advantages of allowing uninterrupted access to the pews and benches beneath, and to the door of the tower where the Ringers pealed the bells, it projected the choristers' voices clearly into the church, and it allowed the singers to face the altar and the pulpit.[23]

The popularity of the parish choirs, often supported by bassoons, viols and flutes, increased during the eighteenth century and became an attractive feature in many churches. Parishioners enthusiastically supported them, for apart from the singing of psalms there was little opportunity for the congregation to join in the service: chanting - the only other means of participation - was regarded contemptuously in most parishes as 'Cathedral worship'. Where the priest was not resident the parish clerk was responsible for organising the Sunday services and choosing the psalms.

This was not always a success, for the particular likes and dislikes of the untutored clerk dictated which psalms the congregation had to sing. 'Nothing of late years has been more abused by the caprice of parish clerks than psalm singing, who are so apt to give out psalms adapted to their own taste, that they seem to forget that they are in a Christian congregation... for several months past we have sung hardly anything else but faggots, fire, flame, gibbets, axes, hammers, and all the curses in David's psalms.' Apart from making an unpopular choice of psalms the clerk might also succumb to the pressure from the choristers who had learned a new anthem - perhaps one of their own composition - and wanted to include it. As the repertoire and individual development of the choirs increased, their contribution became a separate and distinctive part of the service, and the original aim of the choir providing a lead for the congregation to sing psalms became somewhat distant.[24]

Church authorities were sometimes suspicious of the choristers and the bell ringers, for their separate practice meetings in church took place on weekdays, and they were not always under the direct gaze of the Churchwardens. Some parishes like Kington Magna paid for 'Singing Masters' to teach new tunes and the sol-fa method of singing, but most parishes were visited by itinerant tutors who also taught counter-point and harmony, which many traditionalists dismissed as ' jiggish measures ... to astonish an audience'. It was easy under such conditions for church leaders to suspect the worst, because, in William Cowper's words, 'these new-fashioned psalmodists are necessarily made up of young men and maids ... there is a perfect concord and symphony between them: and indeed I have known it happen that these sweet singers have more than once been brought into disgrace by too close an unison between the thorough-bass and the treble.' While that whiff of scandalous behaviour was always a possibility with the choristers, the all-male groups of bell ringers gave rise to another concern : that of boisterous behaviour and being a constant drain on limited church funds. No parish could dispense with their services, however, because in addition to their duties at funerals they celebrated certain national events, like royal occasions, military victories, significant events in the Christian calendar, and State occasions like Oak Apple Day and Gunpowder Plot. Indeed, through their work they bound together State and parish, and created in local people a sense of national identity. But, they everywhere exasperated the Churchwardens because of their long-standing habit of claiming money for new bell ropes while privately disposing of the 'old' ropes and thereby earning themselves a little pocket money at the church ratepayers' expense. In some parishes, like Fontmell Magna, the Churchwardens insisted that the old ropes should be produced before new ones were provided, and, to curb unruly behaviour the Churchwardens were not averse to raising the matter in front of other leading parishioners during Vestry meetings, and demanding a public disciplining of the bell-ringers. In Lydlinch, where 'great and scandalous Disorders' were reported 'occasion'd by Ringing and Drinking there late in ye Night', the Vestry forbade the Ringers to take 'Beer, Brandy or any other Liquor' into the church; and at Langton Herring, appalled at the disturbances caused by this 'Noisy Tribe of Men', not only was all liquor forbidden, but the Ringers were warned that in future the Ale-house keepers' bills would no longer be met out of church funds.[25]

At the close of the eighteenth century, Churchwardens still struggled to maintain the buildings which they had inherited. Unfortunately, conditions did not improve generally in Dorset, and there was still considerable poverty in the rural areas, with many parishes still suffering from reluctant rate-payers, uninspiring services, non-residence, and the gradual inroads of organized non-conformity. Had the Victorians not undertaken church restoration on a national scale, then many Churchwardens in the rural parishes might have found it impossible to maintain their buildings and continue to provide for worshippers.

23 Vaux, *Church Folk-Lore*, p. 57; Abbey and Overton, *English Church*, II, p. 481 citing T. Haweis, *Carmina Christo*; N. Temperley, *The Music of the English Parish Church* (C.U.P., 2 vols, 1979), I, p. 153.

24 *Gentleman's Magazine*, vol 16, Aug, 1746, p. 421.

25 Cowper, 'Country Congregations'; DRO, Fontmell Magna Churchwardens' Accts, PE/FOM CW 2; DRO, Lydlinch Churchwardens' Accts, PE/LYD CW 1/1; Langton Herring Churchwardens' Accts, P/LAH CW 1.

A Dorset Carrier in 1830

DORIAN GERHOLD

The article notes that the London carriers were of great importance to the regional economy before the railways; that little has been written about them; and that a partnership agreement of 1830 provides an opportunity to study one such firm, serving Dorset and other western counties, in unusual detail. A short description of the firm's background is then given, and the remainder of the article discusses what the 1830 agreement tells us about the organisation of the firm and how it worked its horses.

The carriers of goods by horse-drawn waggon who linked London and the provinces before the railways have received remarkably little attention from historians. This is partly because of the scarcity of surviving documents and partly because pre-railway road transport has been regarded as so inefficient that it was of little importance compared with water transport. However, recent writings have shown that the traditional view of pre-railway road transport is false - that carriers by road did provide regular services, and that, although it was significantly more expensive to send goods by road than by sea, many manufacturers, tradesmen and others considered the extra cost worthwhile for road transport's greater speed and reliability.[1] Goods carried from Dorset to London in substantial quantities in the early nineteenth century included sailcloth, woollen cloth, thrown silk, buttons, butter, wool and leather; goods from London to Dorset included hops, groceries and draperies.[2]

As for scarcity of documents, the London carriers of the West Country are the great exception. Of the three major firms of the early nineteenth century, one, belonging to the Russells of Exeter, is recorded in 2,600 letters of 1816-21 and in various legal proceedings, which have recently been used to write the firm's history.[3] Another, owned or part-owned for much of its history by the Woolcotts of Sherborne, is recorded less comprehensively in legal papers relating to the Woolcott family and now held by the Dorset Record Office.[4] Among these is an unusually detailed partnership agreement, dated 25 June 1830, which is published as an appendix to this article.

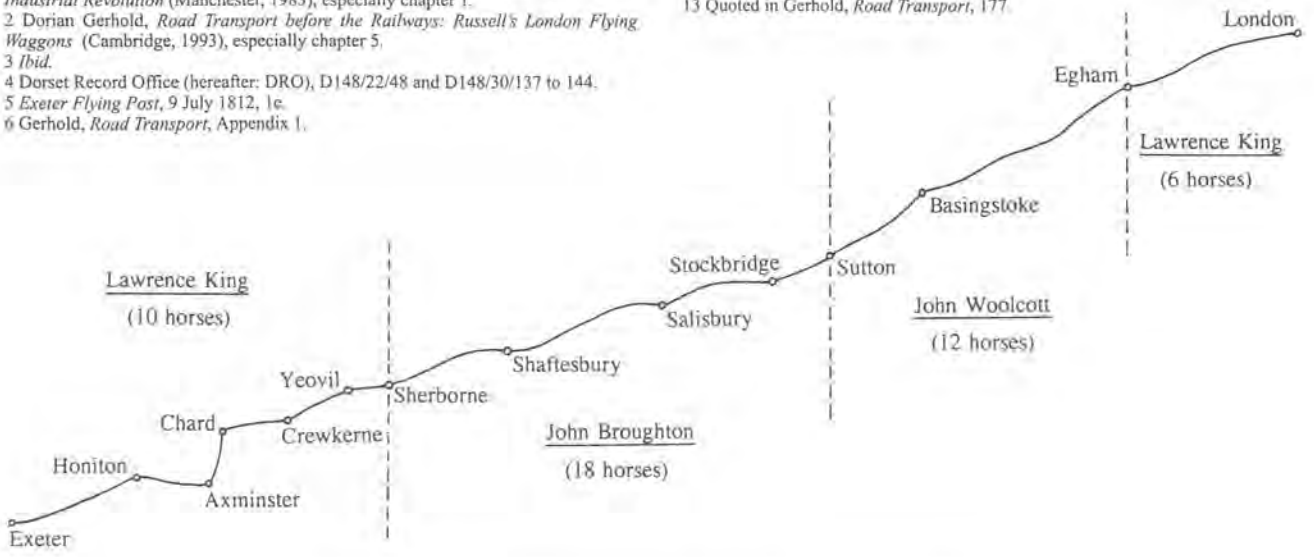
Some years before 1830 Woolcott's waggons had been advertised as 'old-established',[5] and this was not merely good advertising copy. Although the firm was less 'old-established' than its main West Country rivals,[6] it can nevertheless be traced back to 1737, when it was owned by Anthony Slade of North Perrott near Crewkerne. Throughout its history it served chiefly the Sherborne and Yeovil area, but it also carried some goods for places further from London, especially Exeter and Taunton, to which they could be forwarded by subsidiary services of its own or by other carriers, and it was usually advertised as an Exeter or a Taunton service.[7]

The Woolcott family first obtained a stake in the firm in 1791, when its proprietor, Thomas Pittard of Sherborne and Yeovil, became insolvent and took John Woolcott of Crewkerne into partnership.[8] Woolcott was previously a Crewkerne to Salisbury carrier.[9] By 1797 Pittard had gone and Woolcott was the principal proprietor, usually with a partner at Salisbury for what seems to have become a distinct service between Salisbury and London.[10] In 1796, Woolcott purchased the New Inn at Sherborne, which was thereafter the firm's headquarters. Behind the street front were waggon stands, stables, granaries and smiths' and carpenters' workshops arranged around a large courtyard.[11] Woolcott increasingly promoted the service as an Exeter one rather than a Taunton one, as it had usually been described since the 1770s, although he undoubtedly continued to carry Taunton goods as well. From Exeter, goods were forwarded to the rest of Devon and Cornwall by other carriers.[12]

Woolcott's main competitors between Exeter and London from 1816 were Thomas Russell & Co, who did not hold him in high regard. When Woolcott started a subsidiary service to Blandford in 1817, taking some of their customers, they contemplated retaliation by a price cut which would force him out of business, but one of the Russell partners opposed this in the following terms:

> Let them find out Woolcot's irregularity and the time he is on the road. In a few weeks I hope we shall have them again...Woolcot would get no carriage if he did not undercarry us considerably. If we alter, he will do the same: it will occasion us great loss and ruin him, and ultimately a much more competent person or persons may set on waggons...I have ever been of opinion that he is better on the road than off...Could we wish for a man who has less to recommend him: obstinate, irregular, of dubious credit, constantly offending his customers.[13]

1 See e.g. Derek H. Aldcroft and Michael J. Freeman (eds.), *Transport in the Industrial Revolution* (Manchester, 1983), especially chapter 1.
2 Dorian Gerhold, *Road Transport before the Railways: Russell's London Flying Waggons* (Cambridge, 1993), especially chapter 5.
3 *Ibid.*
4 Dorset Record Office (hereafter: DRO), D148/22/48 and D148/30/137 to 144.
5 *Exeter Flying Post*, 9 July 1812, 1e.
6 Gerhold, *Road Transport*, Appendix 1.
7 For more detail on its history, see Gerhold, *Road Transport*, 175-6, 225.
8 *Sherborne Mercury*, 21 February 1791, 1c, 7 March 1791, 3c.
9 *The Salisbury Guide* (Salisbury, 1769, 1782).
10 Wiltshire Record Office, 906/Sal 37; Gerhold, *Road Transport*, 175, 225.
11 DRO, D148/22/48, deed of 1796 and sketch plan of about 1830.
12 *Sherborne Mercury*, 18 January 1773, 3b; *Exeter Flying Post*, 24 July 1806, 2a, 19 July 1810, 2d, 9 July 1812, 1e.
13 Quoted in Gerhold, *Road Transport*, 177.



John Woolcott & Company's carrying concern, as organised in 1830.

The firm was modernised in the 1820s, chiefly by John Woolcott's son Philip, who was joint owner from 1823 to 1825. A van service was introduced in 1822, although it only lasted a few years; a London inn was purchased in 1824 (the Elephant, Fore Street); and 'flying waggons' were established in 1825. Vans were light, box-like vehicles on springs, and were faster than waggons, but they required more horses and so were more expensive and in most cases became unprofitable. Flying waggons changed teams and waggoners at intervals and therefore travelled continuously, rather than using the same team and waggoner for the whole journey and stopping at night; consequently they had shorter journey times without the considerable extra cost of working the horses faster.[14] While the vans were running the firm was larger than ever before or after: it had 140 horses in 1823.[15]

In 1825 John Woolcott retired (he died the same year) and Philip Woolcott sold out, receiving £1800 for the stock and £1200 for the goodwill.[16] It was their successors who made the agreement of 1830.

There were three partners in 1830. John Woolcott of Salisbury was the son of the first John Woolcott, and was also proprietor of the Salisbury part of the firm, which was not covered by the agreement. Lawrence King, who lived at Sherborne, had been the firm's bookkeeper by 1818, and had married Elizabeth, daughter of the first John Woolcott.[17] John Broughton had leased the Elephant Inn in London from Philip Woolcott in 1825, and was then described as a 'waggon yard keeper'. However, in 1830 he was living in Sherborne and operating Dorchester to Bristol waggons.[18] The firm traded as John Woolcott & Co. All three partners occupied stables at the New Inn at Sherborne; the house there went to King and the warehouses, office, smiths' and carpenters' shops and yard to John Woolcott.[19] Both King and Woolcott were to work stretches of road some distance from where they lived, which may have been unusual, given the amount of supervision required.

The firm was reorganised in 1830 in a way increasingly common among London carriers.[20] The road was divided into districts, and each partner was to provide horses to draw the waggons through his district, receiving in return a share of the concern's income in proportion to the work done by his horses. Whereas other firms divided receipts according to the number of miles covered by each partner's horses, making adjustments when some teams were smaller than others, the Woolcott firm divided receipts according to the number of horses considered necessary. Individual partners owned the horses and paid all the costs of keeping them, including provender (about half of total costs), harness, shoeing, horsekeepers, stabling and vets' fees. Waggons, on the other hand, belonged to the firm as a whole, and the cost of waggon repairs, waggoners, waggon houses, bookkeepers and turnpike tolls was paid out of the receipts before they were divided. This system had several advantages: the business was divided into more easily manageable sections; disputes over imprudent expenditure on horses or provender were minimised; and the partners were not liable for each other's debts. According to the agreement, changes to the 'customary' rates of carriage, the employment of agents or bookkeepers and the commencement of lawsuits all required the consent of a majority of the partners; presumably the same applied to any changes in the times of waggons.

The partnership agreement is most useful in indicating the

14 *Ibid.*, 30, 178, 190-3.
15 DRO, D148/22/48, partnership agreement between John Woolcott and Philip Woolcott, 21 June 1823.
16 DRO, D148/22/48, partnership dissolution, 6 April 1825; *ibid.*, agreement between JohnWoolcott and Philip Woolcott, 28 November 1825.
17 Public Record Office, C112/93, No. 95; DRO, D148/22/48, partnership dissolution , 6 April 1825; *ibid.*, note by Elizabeth King.
18 DRO, D148/30/137, draft lease of Elephant Inn, 1825; 1830 agreement; DRO, D148/30/140, bill from John Broughton, undated; *ibid.*, letter of 9 December 1831.
19 DRO, D148/22/48, sketch plan.
20 See Gerhold, *Road Transport*, 38-41.

John Woolcott & Company's warehouse at Green Hill, Sherborne (formerly the New Inn), showing a waggon and a van. The painting was done by Elizabeth King some years after the premises had been demolished. Copyright Sherborne Museum, and reproduced by their kind permission.

way the service (apparently thrice weekly)[21] was provided (table 1). The 46 horses specified are the number actually required in the teams, and the partners needed a larger number to be sure of having enough available for work. Using the contemporary rule of ten horses to keep eight at work,[22] a total of about 58 horses was required. In fact, inventories of 1825 and slightly later record 58 and 67 horses respectively.[23] Teams between Sherborne and London were clearly of six horses, which appears to have been typical in the 1830s, when improved roads with reduced gradients had made the teams of eight formerly used unnecessary.[24] Smaller teams were evidently used between Sherborne and Exeter - either two of five horses each or three with fewer horses, presumably drawing smaller waggons. In the inventory of 1825, the teams were from six to eight horses each, apart from the '4 west waggon horses', and the later inventory specifies seven teams of seven or eight horses and three of four or five, which conforms reasonably well to the 1830 agreement. The ten waggons in 1825 included six with nine-inch wide wheels (the largest), two with six-inch wide wheels and two with narrow wheels.[25]

The waggons which departed from London at 5 p.m. were to reach Sherborne at 3 p.m. three days later. The time bill covers that section alone, which confirms that Sherborne to Exeter was operated with different waggons, whose times were not of direct concern to the partners east of Sherborne. The clear implication is that most of the loading began or ended its journey in the Sherborne area. The agreement reflects the increasing emphasis on punctuality, although it was hours rather than minutes which concerned the partners. The fine of 2/6 ($12\frac{1}{2}$ new pence) per hour's delay was not payable if the delay was 'occasioned by unforeseen accident, deep snow, badness of roads or other reasonable cause satisfactorily stated on the road bill'.

The overall time was 1.8 miles per hour between London and Sherborne (2.0 between London and Egham, 1.8 between Egham and Sutton and 1.7 between Sutton and Sherborne). However, this included time allowed for loading and unloading and, where stages were long, for feeding the horses. Thomas Russell & Co.'s overall timings between Exeter and London in 1816-21 were 1.6 miles per hour, but just over 1.8 miles per hour if time for loading, unloading and feeding is excluded,[26] which suggests that, if the time bill was adhered to, the speed of the Woolcott horses in 1830 when actually moving averaged about 2.0 miles per hour. This was the speed at which drawing vehicles by horses was cheapest, and was the typical speed of carriers by cart or waggon right up to the railway era, largely unrelated to the state of the roads.[27]

Given three services a week, each team between Sherborne and London covered from 116 to 126 miles a week, which was towards the upper end of the range recorded for London carriers at different periods.[28] West of Sherborne, assuming there were three teams, each covered only 104 miles per week, but over roads with steeper gradients. Each team east of Sherborne worked an average of 10 to 12 hours a day, which appears to have been normal for carriers' horses but was considerably longer than the eight hours or less of most farm horses.[29] The agreement does not reveal how their work was organised: teams could have worked short stages daily or much longer stages less frequently.

It was not enough to supply horses: they had to be capable of drawing the loads specified, which were 15 hundredweight per horse in summer and 13 hundredweight in winter (in both cases excluding the weight of the waggon). These weights were typical of the 1830s, but considerably greater than a decade earlier, when the roads had been poorer. For example, in 1821 the Russell

21 *Exeter Pocket Journal* (Exeter, 1830).
22 *Second Report from the Committee on Acts regarding the use of Broad Wheels*; Parliamentary Papers, 1808, II, 457.
23 DRO, D148/30/140, notebook.
24 Gerhold, *Road Transport*, 198.
25 DRO, D148/30/140, inventories in notebook.
26 Gerhold, *Road Transport*, 57
27 See *ibid.*, 57, 188, 194-5.
28 *Ibid.*, 59, 261n; Parliamentary Papers, 1808, II, 457.
29 Gerhold, *Road Transport*, 59.

Table 1

	Miles	Horses	Hours	Teams	Miles per week per team
London-Egham	20	6	10	1	120
Egham-Sutton	42	12	23	2	126
Sutton-Sherborne	58	18	35	3	116
Sherborne-Exeter	[52]	10		[3?]	

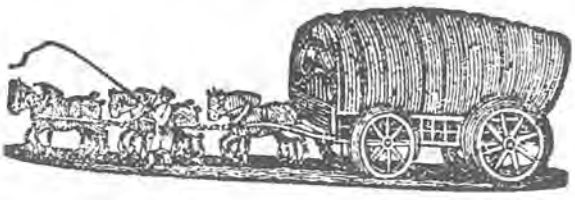
Source for first three columns: DRO, D148/22/48, partnership agreement, 25 June 1830.

partners received extra payments out of their joint earnings if the weights drawn per horse exceeded $10\frac{3}{4}$ hundredweight in summer or $9\frac{3}{4}$ hundredweight in winter.[30] If there was more loading than could be carried in the regular waggons, the Woolcott partners who provided extra waggons and horses to draw them were to receive an extra share of the concern's receipts in proportion to the work done by their horses.

Many other features of the agreement appear to have been customary for London carrying partnerships, such as the system of referring disputes to arbitration by other parties, and the provision that retiring parties offer their share to remaining partners. Payment in such cases was to be for both horses and goodwill, and the latter was sometimes reckoned as valuable as the stock of horses and waggons[31]. One surprising feature of the agreement is the insistence on all money being collected in a cash box prior to distribution, whereas it might have been more convenient for each partner to have collected money and for the distribution to be a matter of accounting between them.

The 1830 agreement operated in its original form for only a year, and the business was said to be in a bad state in March 1831.[32] John Woolcott died in 1831. Nevertheless, the waggons continued to run. Lawrence King remained a proprietor for a further decade, always with a partner at Salisbury. The firm was still recorded in the *Exeter Pocket Journal* as serving Exeter in 1842, but had gone by 1843, by which time Great Western trains had reached Taunton. The New Inn at Sherborne was demolished in 1842.[33] The Lipscombe family, which had a stake in the firm by 1838, continued to be recorded in London directories as serving Sherborne until the late 1860s,[34] but by then were probably providing only a parcels service by railway. Long-distance road services did not reappear until the present century. The 1830 agreement offers a useful reminder of the highly-organised world of the London carriers and the indispensable service they provided in the centuries before railways.

30 *Ibid.*, 198.
31 DRO, D148/30/140, valuation in notebook.
32 DRO, D148/22/48, partnership dissolution, 1 June 1831; DRO, D148/30/140, letter of 26 March 1831.
33 *Post Office London Directory* (1832, 1836, 1838); *Exeter Pocket Journal* (Exeter, 1842, 1843); David Burnett, *Dorset before the Camera* (Wimborne, 1982), Fig. 130.
34 *Post Office London Directory* (1866, 1870).



OLD ESTABLISHED WAGGONS.

TO AND FROM

The ELEPHANT, FORE-STREET, LONDON,

(Late SWAN, Holborn Bridge,)

Salisbury, Shaftesbury, Sherborne, Yeovil, Crewkerne, Ilminster, Chard, Axminster, Honiton, Exeter, Plymouth, &c.

JOHN WOOLCOTT,

A woodcut of a waggon used in an advertisement by John Woolcott in 1822. Reproduced by kind permission of Devon County Council (The West-country Studies Library).

APPENDIX

Articles of agreement made and entered into the 25 day of June in the year of our Lord one thousand eight hundred and thirty between John Woolcott of Salisbury in the county of Wilts common carrier of the first part Lawrence King of Sherborne in the county of Dorset common carrier of the second part and John Broughton now residing at Sherborne of the third part.

Whereby the said several parties severally promise and agree with each other to be and become seperately but not jointly concerned as proprietors of common stage waggons between and from the cities of London and Exeter for the carriage and conveyance of goods wares and merchandise brought or consigned to them at or between those places and to do and perform their several quotas or proportions of work upon and subject to the terms conditions and stipulations hereinafter mentioned, under the firm of

John Woolcott and Company

for the full term of seven years from the 30th of June instant liable to be determined at the end of any three months ending at Christmas or Midsummer in any year, provided a previous notice shall have been given by the party desirous of retiring to the two others of such his desire, that is to say

The said parties shall do and perform their work in the following districts and with the hours hereinafter mentioned that is to say

The said John Woolcott from Egham to Sutton and back again with a team of 12 horses

The said Lawrence King from London to Egham and back again with 6 horses and from Sherborne to Exeter and back again with 10 horses

And the said John Broughton from Sutton to Sherborne and back again with 18 horses -

Dividing the net profits of such concern in proportion to the number of horses so to be provided and in no greater or less proportion.

That a regular cash book and other requisite books be provided at the joint expence of the concern & that the cashier for the time being shall receive all sums of money, brought by either party, deposit the same in the box to be provided for that purpose and make all requisite entries of the same in the cash book and shall at all times be responsible for the money appearing against him in such book, whether the amount in the box shall or shall not correspond therewith in consideration wherof he shall be allowed an extra sum of £5.0.0 to be paid previous to a division of profits at Christmas in every year.

That waggons and all dead stock be provided at the joint expence of the parties, but each party is to provide and purchase his number of horses as before stated, which are at all times to be considered as his distinct & seperate property.

That each party shall find and provide at his own individual expence, not only stabling, but also all hay and corn or other horse provinder & pay the wages of all horsekeepers or servants employed in looking after the horses employed in his district, but the wages of all the waggoners or drivers of waggons and all the turnpike tolls upon each district of road shall be paid from the common stock before any division thereof.

That the rates of carriage at and from the commencement be charged as has been formerly customary on the same line of road, and that no alteration shall be made, but with the sanction of a majority of the parties.

That all sums of money received by either party shall be forthwith paid to the cashier for the time being who shall immediately deposit the same in the cash box and make the requisite entries in the cash book & that neither party shall be at liberty to retain any part of what he may receive.

That no division of cash shall at any time be made unless the amount in the cash box be 23£ or upwards nor then until all bills owing from the concern, which are due and ought to be discharged, shall have been previously satisfied by the cashier.

That each party shall provide his own house or place of residence, at his own expence, but that all necessary waggon houses and yards, but not stables, shall be paid for from the common stock, as well the rent as the rates & taxes for the same.

That the parties shall be considered as seperate traders though acting under the title of John Woolcott and Company and that one party shall not be in any respect liable for the private debts of the other, particularly any debt for horses or their provinder.

That no action suit or prosecution be commenced or be defended, but with the order and direction of two of the parties, but with such order all the costs charges damages and expences relating to any action suit or prosecution commenced or defended shall be paid from the common fund.

That all agents employed be paid from the common fund but no agent shall be employed, but with the consent of two of the parties.

That all bills shall be fully discharged from the common stock before any division takes place in the profits either at the end of any year or at the natural expiration of the term above mentioned or earlier determination in consequence of notice given by either party.

That either party not performing his journy according to the time bill hereafter stated shall for every hour of delay forfeit the sum of 2/6 for every hour to go into and become part of the joint stock, unless such delay be occasioned by unforeseen accident, deep snow, badness of roads or other reasonable cause satisfactorily stated on the road bill.

That the following be the time bill vz

	Hours	Miles
From London 5pm to Egham	10	20
From Egham to Sutton	23	42
From Sutton to Sherborne	35	58
	68	120

That neither party shall draw sign or indorse any bill or note for the accommodation of himself or other person, unconnected with the business of the concern.

That proper book keepers be employed at the joint expence of the parties, and that all the books of the concern be at all times open to the inspection of each party.

That if the cashier for the time being shall refuse to examine the cash box, the same may by force be opened if the other two so determine.

That all extra work done or performed by either party on the line of road before mentioned vz between London and Exeter shall be considered as joint earnings and be paid into the common stock as such, but the party performing the same shall be paid according to his number of horses and in no greater or less proportion.

That the party desirous of retiring from the concern before the expiration of the term shall give to the others the offer of his horses and the goodwill of his district at such compensation as shall be fixed by two indifferent persons or a third appointed by the two in case they should not agree therein, and that he shall not be at liberty to dispose of the same without such previous offer to the other parties.

That each party shall find and provide horses sufficiently strong and able to draw each 15 cwt of net goods from the first of March to the first of November, and 13 cwt from the first of November to the first day of March.

That if any difference or dispute shall happen or arise between the parties either in the course of their business or touching the construction of this agreement or any of the clauses herein contained the same shall be referred to three persons chosen for that purpose each party choosing one, and be determined by such three persons or two of them, and that no action shall be brought or commenced by either party before such reference shall have taken place until any party shall neglect for the space of ten days to nominate his arbitrator when desired so to do.

That this agreement be reduced into a formal deed and to be duly signed when tendered.

Witness the hands of the parties the day and year first above written -

Witness
T. Fookes

John Woolcott
Lawrence King
John Broughton

(Dorset Record Office, D148/22/48. Capitalisation has been modernised.)

Dorset Limekilns: a first survey

PETER H. STANIER

SUMMARY

The primary aim of research undertaken in 1992-3 was to identify and record Dorset's limekilns, as a result of which over 300 sites are now known. The main period of lime-burning was from the mid-eighteenth century to the early twentieth century, and was mostly concerned with agriculture. This paper gives a brief background to the industry in Dorset. The second part examines the distribution and archaeology of the surviving limekilns today.

INTRODUCTION

> 'Limekilns are amongst the most familiar and least studied of industrial archaeological sites.'
>
> (Cossons,1975, 221)

There has been little research into the limekilns of Dorset. Some recording was undertaken in the mid-1980s by the Dorset Countryside Volunteers, and more recently, 112 limekiln sites were identified but not published (Hansford, 1989). In 1992, only eighteen limekiln sites were held in Dorset's Sites and Monuments Record.

As with other limestone districts, it has been said that most Dorset villages and private estates had their own limekilns, to produce lime for building mortar and especially for agricultural improvements. The earliest references to lime-burning in Dorset come from accounts of building works and repairs at Corfe Castle in the thirteenth and fourteenth centuries (Hutchins 1861, 491-4).

The use of lime for agriculture dates perhaps from the sixteenth century onwards, this being true for Devon (Havinden 1974). The practice was widespread among farmers by the late eighteenth century, when Marshall (1796, 145) was able to record that 'lime is more or less in use, throughout [West Dorset]: being burnt, from stone found within it,' while Stevenson (1815, 351) wrote that 'lime is much used in the Vale of Blackmoor, in the neighbourhood of Sherborne, Cheddington, Beaminster, Bridport, and along the coast from Burton to Abbotsbury, Fleet, and Weymouth.' However, agricultural depressions, competition from chemical fertilisers and large commercial lime-burners outside the county, and the adoption of Portland cement for building purposes, sent the industry into rapid decline by the early twentieth century. Some larger limekilns were erected in the 1920s and 1930s, but few were left operating in Dorset by the Second World War. It is, however, satisfying that lime-burning is still practised in traditional-style kilns at Shillingstone in the 1990s.

Lime-burning for agriculture

The earlier agricultural writers and improvers considered lime to be a manure, which was used alongside chalk and marl. Chalk and marl (a clayey decomposed form of chalk) were commonly dug from pits which are still a feature of some chalk landscapes.

The chemical process of lime-burning is shown below. During the burning or calcining of calcium carbonate at 900°C or above, carbon dioxide is released (dissociation). The limestone or chalk will yield about half its own weight in quicklime, which is a pure form of calcium. This reacts violently with water to form slaked or hydrated lime, which is over a hundred times as soluble as limestone.

Burning (calcining)

Limestone or chalk	→	Quicklime + Carbon Dioxide
(Calcium Carbonate)	→	(Calcium Oxide)
$CaCO_3$ + heat	→	$CaO + CO_2$

Slaking (hydration)

Quicklime + Water	→	Slaked or Hydrated Lime (Calcium Hydrate)
$CaO + H_2O$	→	$Ca(OH)_2$

Calcium is one of the most important constituents of soil. It neutralises soil acidity (even chalk soils can become acid), and thus encourages the action of useful bacteria which render fertilisers and other nutrients available for plant growth, and it improves and alters the texture of the soil.

Table 1 shows the forms of lime available in 1931, when rough chalk was still used occasionally under certain circumstances. Such chalk weathers down slowly. The lump burnt lime or quicklime straight from a limekiln is the most efficient. Today, ground chalk or limestone is the most usual agricultural 'lime' dressing. Although less soluble than the true limes, it is much cheaper and easier to handle.

Table 1: Forms of Lime Available for Agriculture

Type	% Lime	Action	Dressing per acre
Rough Chalk	50	very slow	20-80 loads
Ground Chalk	52	moderate	3 tons
Ground Limestone	54	moderate	30-40cwt
Precipitated Chalk	30-53	moderate	30-50cwt
Hydrated Lime	70-75	rapid	20-30cwt
Lump Burnt Lime	90-95	rapid (caustic)	2 tons
Ground Burnt Lime	80-95	rapid (caustic)	½-1 ton

Source: University of Reading and Dorset County Council 1931, 25.

In the late eighteenth century, John Claridge (1793, 18) wrote that 'a great deal of lime is used as a manure, and twenty hogsheads of four bushels each, per acre, is esteemed a good dressing.' It was, however, Stevenson (1815, 351-4) who gave most account of the application of lime to the land at this period. The true nature of lime was later better understood, when Henry Stephens (1871, 527-9) offered sound advice to farmers. Lime was taken from the kiln in lumps which were allowed to slake in the corner or head of a field before being progressively harrowed and ploughed in. Farmers applied the lime at different times of the year, but mostly in the spring or autumn.

Other uses of lime

Before the advent of Portland and other cements, lime was used extensively for building, where mortar was produced by the additon of slaked lime to sand. It continued to be sold to the building trade in the twentieth century. The banks of large kilns at Apsley and Foxholes at Poole would have produced lime for building works in the district and neighbouring Bournemouth. Lime for plaster and stucco work was burnt in Purbeck and at Uplyme, just over the Devon border. Hydraulic cement was manufactured at Lyme Regis, where Blue Lias stone was collected from tumbled masses on the beach and quarried from the cliffs behind. A cement factory was worked during the period 1850-1914, when there was also an associated limekiln. Cement stones were gathered at Charmouth, where a mill was built close to the shore in the 1850s. A limekiln (site 51) behind it seems to be related.

For the Dorset cottager, lime ash was used for laying hard floors, an improvement on beaten earth. White-wash was made from from lime and whiting. Victorian public utilites sought lime,

for example, for softening water. The limekiln (site 275) which stood outside the Weymouth Gasworks in 1866 was undoubtedly to produce lime for purifying coal gas. A bushel of quicklime could treat up to 10,000ft^3 (283m^3) of gas (Tomlinson 1854, 741-2).

Early limekilns

Corfe Castle had the earliest known limekilns in Dorset. Medieval limekilns, referred to by Hutchins, were probably similar to two excavated at Portchester Castle in Hampshire (Cunliffe 1977, 56-60), but the earliest existing structure is a pit kiln at Wytch Heath (site 78), dating from agricultural improvements on the heaths in the early eighteenth century. Excavations showed it to have a single flue with raking pit and to be an intermittent or flare type, which was fired and allowed to cool before discharge (Cox and Hearne 1991, 104-7).

In the same parish, a lease of 1730 gave one William Cooper 'the free liberty and priviledge of making errecting and setting up a Lime kiln' at Ower, and a lease three years later refers to the 'new...Lime kilne' (DRO.D/RWR/T75/4). A map of 1772 shows such a limekiln on North Heath at Ower Passage (site 76, DRO.D/RWR/E16/9), while an accompanying map shows almost certainly two limekilns at Limekiln Close and Black Hills near Bushey (sites 75 and 71, DRO.D/RWR/E16/5). The Ower and Limekiln Close kilns, which had two flues each, are on a later map of 1805 (DRO.D/RWR/P3). Hutchins (1861, 511) noted a limekiln near St Edwards Bridge at Corfe Castle in 1753. Elsewhere, Isaac Taylor's Map of Dorsetshire shows a limekiln outside Blandford Forum in 1765 (site A9).

In the early nineteenth century, a single limekiln near Church Knowle (site 67) was recorded on the Old Series One-Inch map, surveyed in 1805-7. In the 1820s, limekilns are known from documentary sources at Christchurch (sites A2-3, DRO.D/RHM/2411) and the Cobb, Lyme Regis (site A8, SRO.DD/TOR 306), while 'a much magnified lime-kiln' is shown beside the beach at Charmouth in a picture made by C. Galpin in 1827 (DRO.D/PAV/8). It is interesting that in February 1825, one Thomas Hardy (the author's grandfather, who was a builder) advertised 'good well-burnt Lime' at Slyer's Lane Lime Kiln, within 1½ miles of Dorchester (see Draper 1989, 18). Unfortunately, this kiln's location remains a mystery.

The lime-burners

Trade directories recorded very few lime-burners, as shown in 1793 (2), c1797 (1), 1830 (1), 1842 (4), 1848 (8), 1855 (12), 1859 (16), 1867 (12), 1880 (8) and 1895 (6). Lime merchants were recorded in 1867 (7) and 1880 (5). The directory for 1903 entered only six lime-burners and an additional five merchants in Dorset, yet contempory maps show at least 100 limekilns still in use. This supports the view that most lime-burners were farmers, and those worthy of entry were commercial burners. Occasionally, there is a 'farmer and limeburner', like John Dunn of Beaminster in 1848, or David Lane of Woodbury Hill, Bere Regis, in 1865. Henry Smith of Stoke Abbot appears only as a 'farmer' in 1895, yet surviving ledgers show he was selling lime to many customers at that time (DRO.D/SSA/E5-7). The entry for c1797 was for Samuel Evans, a 'maltster and limeburner at Blandford Forum. Other dual occupations in 1865 included Abraham Gillingham, a shopkeeper at Bishop's Caundle, while Henry Roper was more appropriately a 'builder, quarryman and limeburner' at Upwey. John Roper had a limekiln here in 1826-46 (DRO.D/FFO/13/26 and 28). An accident report of 1880 refers to a Mr Roper's limekiln, as well as one belonging to John Watters, a 'lime merchant who keeps the Royal Oak Inn' (Dorset County Chronicle 18 March 1880). Lime-burning could be a profitable sideline to quarrying, and in 1858, 'Johnson's Quarry' and Gannetts Quarry near Marnhull both produced stone for building and lime (Hunt 1858, 146-7).

Twentieth-century trade

Most of the rural limekilns ceased to work during the early twentieth century, but a few continued until the Second World War. For example, Waddon Hill was worked by the local farmer until about 1937-9 (pers. comm. D. Tolley), while that at Bothenhampton was still an 'excellent limekiln in working order' when sold in 1945 (DRO.D599/2/8). There was also new activity by commercial lime-burners. On Portland, Sydney Milverton and Sons worked the Avalanche Road limekiln until the mid-1920s when they started a larger kiln at Inmosthay for builders' lime. In 1928, they took over the Whitesheet Hill chalk pit near Maiden Newton where an existing kiln was used and a new one built alongside. The site was taken over in the early 1950s by Soil Fertility Ltd, who rebuilt the two kilns and produced agricultural lime for about twenty years. Milvertons continued at Inmosthay until 1959 (pers. comm. A.E. Milverton). Also on Portland, W.F. Davies built a bank of four limekilns at Wide Street in about 1939 and produced agricultural lime during the war years. A unique limekiln in Dorset was a steel shaft type which was erected at Worth Quarry by 1925. Ten years later, Swanworth Quarries Ltd were still listed as lime-burners.

The site at Shillingstone Hill was a small chalk pit with three farmer's kilns when W.G. Bailey of Corston, Somerset, came here in 1924. The Shillingstone Lime and Stone Co. Ltd. was formed by 1931, and a bank of five new kilns was built in 1936-8, along with the main hydration plant. Two pairs of kilns are still burning (Plate 1). The burnt lime falls through iron bars and is removed by conveyor into the lime shed, where it is fed into the original swing-hammer crusher installed in 1928 (a 'No. 2 Lightning Crusher'). From here a conveyor raises the lime to the hydration plant. In 1993, the site had an annual output of about 1,000 tonnes of hydrated lime which found a market with builders' merchants in the South West and for restoration work at historic buildings. In addition, 15-20,000 tonnes of crushed chalk was supplied as agricultural 'lime'.

Plate 1. Two pairs of limekilns burning at Shillingstone Limeworks, with hydration plant beyond. June 1989.

Dorset limekiln types

The basic rural limekiln recorded in this Dorset survey was the draw or running kiln, a type which was burnt continuously for weeks or intermittently for a single firing. Limekilns are difficult to date. Hunt (1987, 137) gives an eighteenth-century date for Woolcombe Farm (site 265), but the majority of surviving structures in Dorset must belong to the early to mid-nineteenth century.

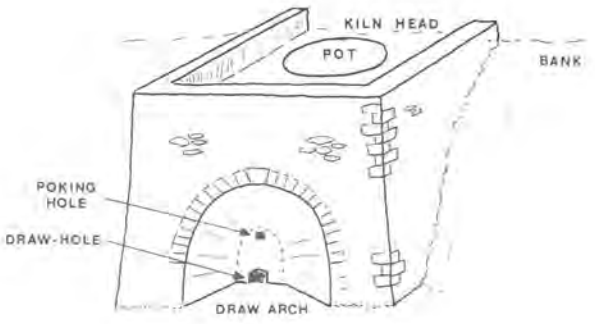
Figure 1 shows the features of a 'typical' Dorset draw kiln, built into a bank with protective wall around the top or kiln head. Construction was of stone, with thick insulating walls. The shape of the brick-lined pot (charging hole, well or burning cone) was like an inverted bottle, round with vertical sides tapering towards the base where there was an iron grate or grill. The main feature was a single draw arch (access arch) in the front wall. It opened into a recess or lobby which narrowed towards the back wall where the draw-hole (eye) provided the draught to the kiln and the means for drawing out the burnt lime. Above the draw-hole, poking holes were small square openings through which an iron rod (bar) was inserted to test the extent of burning and loosen the charge should it become stuck.

It was common for a lime shed to be attached to the front of the kiln, covering the draw arch and giving protection from the wind and rain to the working area where the burnt lime was being handled. Deep access tunnels served the same function at seven large commercial-sized limekilns, at Apsley Limeworks (site 174-5) and Shillingstone (site 228-32). The latter have an additional shed in front where the lump lime is ground by machine before further processing.

With two exceptions, the few double kiln banks were for the larger commercial kilns operated by lime merchants, mostly in the twentieth century. Map evidence suggests the kiln banks at Foxholes (sites 176-9) were two pairs of converted Suffolk kilns, more usually associated with brickmaking and fired intermittently. In contrast, a modern steel cylinder type of limekiln was operated at Worth Quarry (site 290) in the 1920s and 30s.

Working practice

The limestone or chalk was delivered by cart or barrow to the kiln head, where it was broken down by sledge hammer to fist-sized pieces before being tipped into the pot. One side of the kiln head, or an area close by, was reserved for storing the fuel, which was mostly culm or slack coal. To light a kiln, sticks and culm were first placed on the grate or bars at the bottom of the pot, then a barrow-load of stones, followed by another layer of culm and two loads of stone. The kiln was then lit and once it had taken, more stones were added. Charging continued, using a wheelbarrow to tip in alternate layers of fuel and stone in the usual proportions of one to four until the kiln was full. It was important to have voids between the stones, for the even distribution of heat and to allow the escape of carbon dioxide ('carbonic acid').



PHS

Figure 1. Features of a typical Dorset draw-kiln of the nineteenth century.

As the burning proceeded and the lime was extracted through the draw-hole at the bottom, the charge sank down and more fuel and limestone were added. It might take three to four days for the charge to descend through the kiln, the time depending on such variables as the size of the kiln, the draught and the type, density or dryness of the fuel and limestone.

Controlling the burning was an art. Overburning was wasteful in fuel and the stone might become vitrified, while underburning produced an unburnt core which had to be returned to the kiln. The process needed a good air distribution, and the draught was regulated through the iron draw-hole door, if fitted. The top of the kiln was usually open, but sometimes might be covered with turves to retain the heat. Calcination was complete if the charge gave little resistance when a bar was driven in to test it.

The knobs of lump lime retain the shape of the original stones, but are considerably lighter in weight and break down readily to a powder when slaked. In the lime shed, the lime was bagged, barrelled or stored in bulk. It might be slaked here, or by the purchaser. Most sheds had wide doors to enable the lime to be loaded direct to a cart or waggon.

Accidents

Recorded fatalities were due mostly to the effects of 'carbonic gas inhaled,' as was the case of a carter and labourer named Charles Wheeden in a limekiln at Ridgeway (DCC 18 March 1880). Children were the saddest victims. On 1 August 1832, four boys aged six to eight climbed over the wall of a Langton Herring limekiln to get down to the heated limestone, where they were overcome and suffocated (DCC, 9 August 1832). Another tragedy occurred one morning in October 1863, when fifteen-year-old James Burt of Shroton fell into the burning limekiln at Melbury Hill in October 1863, while his father and the lime-burner were loading a waggon with lime (DCC 8 October 1863).

A potentially dangerous practice was recorded in 1893, when the geologist George Harris visited quarries at Halfway House (site 166) and observed 'the gunpowder was kept inside a lime-kiln, within a few feet of the furnace doors - to "keep it dry"' (BGS.I/969). The kiln and its lime shed are still intact!

The cost of lime

In the 1790s, lime cost 4½d per bushel (Claridge 1793, 18). A few years later, Stevenson (1815, 352-3) reported that at Sherborne, lime was sold for 6d a bushel, 'but it is supposed farmers can burn it for their own use for 2½d or 3d a bushel.' Prices were similar in the 1890s, when Waddon Hill lime was sold at 1s 8d per hogshead, or 5d a bushel (DRO.D/SSA/E5). For comparison, prices at Shillingstone in 1993 were about £80 per tonne for hydrated lime, compared with £9 per tonne for ground chalk, excluding transport costs.

Transport

Stevenson (1815, 352) observed that lime was 'carried down very steep hills in panniers by asses,' and it must have been a busy scene when a limekiln was being discharged. Carts were used where roads allowed. In the late nineteenth century, lime was bought at Waddon Hill limekiln (site 249) by farmers and builders in the district. For example, William Tucker of Park Farm, Chideock (eight miles distant), carted away twenty hogsheads a day over 28 days in December 1889-January 1890 (DRO.D/SSA/E5). This represented three tons a day, enough to lime one acre if spread as recommended by Stevenson.

Fuels for lime-burning

The early Corfe Castle accounts mention brushwood, timber and 'sea-coals', and later references suggest a mixed fuel. Where there was a good local supply, furze or faggots were used. Even lignite may have supplemented these fuels at Wytch Heath (Cox and Hearne 1991, 107).

Coal brought coastwise from Wales or the north-east of England to the Dorset ports was available in their immediate hinterlands. Marshall (1796, 145) referred to lime-burning 'with Welch culm; at least in the Bridport quarter.' Culm was broken

anthracite mixed with small coal dust, which could not otherwise be sold, but was ideal for lime-burning. Seven out of eight samples collected from limekilns during the survey were identified as anthracite (sites 11, 80, 132, 207, 212, 265 and 294). In 1893, Neath culm was shipped to a Somerset port such as Bridgwater or Highbridge and thence by rail to a siding at Crewkerne station, where it was purchased for the Waddon Hill limekiln (DRO.D/SSA/E5). It was then easier and cheaper to get this coal via the railways than through the harbour at West Bay. Coke from gasworks was used in the later nineteenth and twentieth centuries. A mixture of 'petroleum coke' and slack coal is used at Shillingstone today.

THE SURVEY

This survey was undertaken between April 1992 and October 1993, to establish the total number of limekiln sites and the extent of their survival in Dorset. Just over 300 limekilns were located (Appendices 1 and 2). There must remain a few which have been overlooked, but it is now at last possible to see the distribution of lime-burning as a whole (Figure 2).

Map sources

The second edition Ordnance Survey 25-inch (1:2500) scale maps of 1900-2 were the primary source for investigating limekiln

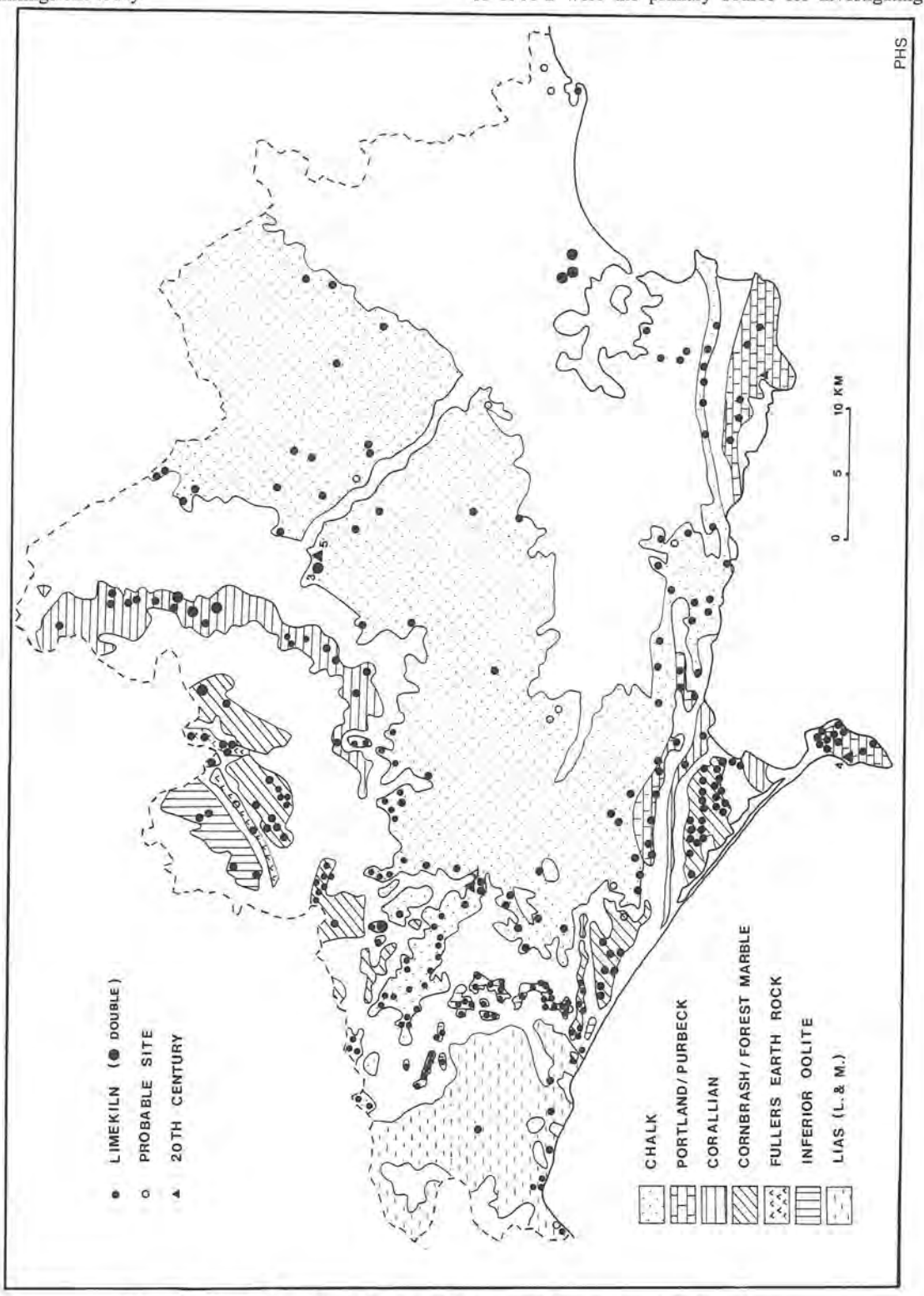


Figure 2. Distribution of limekiln sites in Dorset, with limestone and chalk geology.

sites. They show at least 100 limekilns still in use, while subsequent revisions of the 1920s and 1930s record the demise of lime-burning in Dorset, despite the building of some new limekilns in that period. Less widely available, the first edition 25-inch maps of the 1860s and 1880s record a few limekilns which had vanished by 1900.

Tithe Maps, surveyed around 1840, provide further information, but their quality varies between parishes. For example, the well-presented Langton Herring Tithe Map, surveyed in 1837 by George Moss, shows three limekilns which were still standing in 1900, while a fourth had been replaced by one in an adjoining field. A fifth limekiln is shown at Langton Cross (site 183), just inside neighbouring Portesham, and one which that parish's surveyor failed to mark on his map. Bearing this in mind, a full investigation of all the county's Tithe Maps was not undertaken for this survey.

Past sites are indicated by place-names, such as 'Limekiln Coppice' or 'Limekiln Farm', but a lane named 'Lime Hill' between Powerstock and South Poorton is more suggestive of transport than a kiln site.

Appendix 1, which lists all identified limekilns, shows the status of 259 kilns standing in 1900-2, and the disappearance by that date of 26 known only from earlier maps. Thirteen new kilns were built in the twentieth century. Appendix 2 lists fourteen other sites known from place-names, documentary or other sources, including one of the twentieth century.

Limekilns and Geology

The limekilns have been related to geology in Figure 2. Table 2 assumes that the nearest limestone or chalk was burnt, but there is uncertainty on geological boundaries or where there is no quarry, as with the Cornbrash or Forest Marble. On Portland and elsewhere, the Portland and overlying Purbeck beds were both burnt.

Being the dominant rock type, Chalk accounts for just over a third of all limekilns. Its 109 limekilns are distributed thus: Lower Chalk (55), Lower/Middle Chalk (7), Middle Chalk (12) and Upper Chalk (35). The dominance of the softer Lower Chalk may be significant, for it outcrops on the lower escarpment or valley-side slopes which were convenient sites for opening quarries. It was also easier to dig (although not necessarily better for burning). Elsewhere, the many chalk pits found on the Upper Chalk hills, would seem to have been the common source of 'lime' without resort to burning. Figure 2 shows a grouping on the Corallian outcrop between Marnhull and Gillingham in north Dorset, while in the west, the small outcrops of Inferior Oolite were much exploited from Broadwindsor and Beaminster south to Loders and Shipton Gorge. Where Cornbrash and Forest Marble lie close together between Abbotsbury and Chickerell, preference is shown for the former, but this is reversed around Swyre in the west (Figure 3). Cornbrash is again favoured among the scattered outcrops in north Dorset from Ryme Intrinsica and Yetminster eastwards to Stalbridge.

The Lias of west Dorset includes a variety of limestone beds. The Blue Lias was quarried at Lyme Regis, while 'shinglestone lime' was produced from limestone washed onto the shore at Charmouth. These were hydraulic limes.

The early limekilns on the sandy heaths at Ower, Bushey and Wytch must have burnt chalk from the Purbeck ridge just to the south. Other limekiln sites off the limestone or chalk have different explanations. Some produced lime for the building trades around the growing towns of Poole, Bournemouth and Christchurch (sites 174-9 and A2-A3), while one limekiln in Weymouth was clearly connected with the gas works. A limekiln on the quay at West Bay (site 41) may have burnt local Inferior Oolite or Forest Marble, or was perhaps supplied with better quality limestone shipped from south Devon. Another coastal limekiln (site 240) was on Christchurch Harbour, then in Hampshire, where fuel and limestone had to be imported, the latter perhaps from Purbeck.

Table 2: Dorset Limekilns and Geology

Source Rock Type	No. of Limekilns	% of Total
Chalk	109	36.6
Cornbrash	45	15.1
Inferior Oolite	44	14.8
Portland/Purbeck	32	10.7
Corallian	24	8.0
Forest Marble	13	4.4
Lower & Middle Lias (various)	6	2.1
Fullers Earth Rock	6	2.0
Cornbrash/Forest Marble	4	1.3
Outside limestone areas	14	4.7
	297	

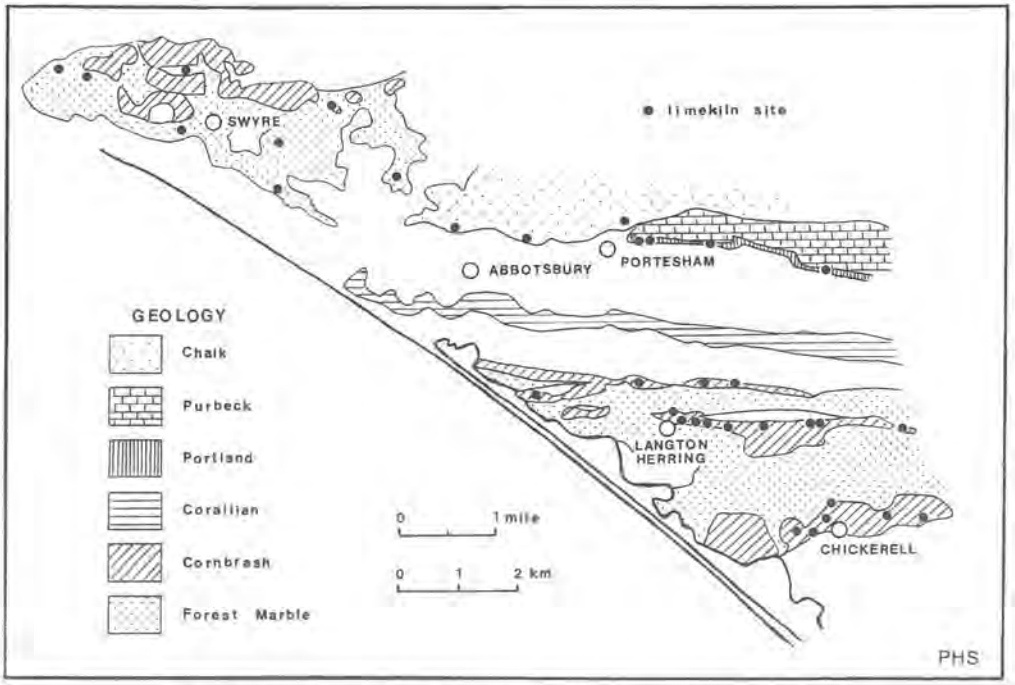


Figure 3. Limekilns and geology around Abbotsbury (Swyre - Chickerell).

Limekiln sites and their archaeology

The small rural limekilns were erected near where they were needed, with little regard to more distant markets. Most were built in or near the quarry from which they obtained their raw material. Of the actual site, there are three main types:

1. A freestanding structure, with a loading ramp to the top of the kiln, as at Droop (site 106), Lawnswood (site 138) or Downs Lane (site 294).

2. More commonly, the limekiln was built partly into a bank so the kiln head was below or level with the quarry floor, to facilitate loading; good examples are at the Bishop's (site 3), Bucknowle (site 65) or the large kilns at Shillingstone (site 228-32) and Whitesheet Hill (site 259-60).

3. The kiln might be built entirely into a hillside or bank, with the pot surrounded by bedrock or rubble, requiring masonry only for the front wall and draw-arch. Examples are at Chaldon Down, East Compton and The Batch (sites 47, 68 and 293), while the wall at Perwen Farm (site 132) included the solid bedrock. Haydon Hill Wood limekiln (site 105) was built into a quarry face, so that the limestone had to be carried up and around to the kiln head.

Sometimes the source quarry is not always apparent, or some distance away. At Hill Farm (site 289), the kiln was built on the Upper Greensand and chalk had to be barrowed down and across a lane from a pit 100m uphill. Coastal limekilns which could be supplied with fuel and/or limestone directly by sea are more common in Cornwall, Devon or Somerset, but they are known at Lyme Regis, Charmouth, West Bay, Lulworth and Christchurch Harbour. One limekiln was built into the West Cliff at Lulworth Cove (site 271), where coal could be supplied from the sea and chalk was readily available from the cliff. The writer recorded a perfect section of this kiln in March 1977, when half the brick pot was still clinging to the fast-eroding cliff, with which it has since vanished.

Building materials

Structural evidence survives at 126 sites in Dorset, but only 81 are in a condition suitable for making observations on building materials and style. Most Dorset limekilns were rectangular in plan. Others were circular or semi-circular, the best survivor being at North Poorton (site 167). Local stone was the usual material for the walls, although brick was combined with stone or flint at East Compton, Bubb Down Farm and Druce Higher Barn, (sites 68, 155 and 212), all in chalk areas. The only limekilns known to have been built entirely of brick were at Stanbridge, Oakford Farm and the Apsley Limeworks, (sites 111, 153 and 174-5). Draw-arches were built in stone, but brick was used where suitable stone was unavailable, such as in some chalk areas. Some brick arches were built to a very high standard, as at Langton Herring (site 116).

The twentieth-century commercial limekilns at Inmosthay on Portland and at Shillingstone were built in stone with brick-lined pots. At Whitesheet Hill, a bank of two limekilns was built on the site of two others (sites 261 and A13), using concrete blocks and shuttered concrete to form the rectangular draw-arches. Although larger than before, the styles of these limekilns were still based on the traditional type of draw-kilns.

Classification

The limekilns are difficult to group according to style, because each was built individually and there is little evidence that any two were built by the same hand (see Figures 5 and 6). However, some general styles can be identified from the most prominent architectural feature, the draw arch. Using this classification, Table 3 groups the known limekilns into seven types (A-G), with the addition of two minor exceptions (types H and I). The arches vary within this simple scheme. For example, pointed arches may have straight or curved sides.

Some regional groupings are apparent in Figure 4. For example, the Type C pointed arch (Plate 2) is common in west Dorset, where Stevenson described early lime-burning. The view that this is an early style is supported by evidence from Warren Bay in Somerset, where a kiln with a pointed arch was shown to be older than two round-arched kilns (Daniel and Murless 1993, 5). Geology could be a factor, as many Type C kilns are found on the Inferior Oolite and Cornbrash/Forest Marble, reflecting those stones' suitability for constructing this simple form of arch. Type B round brick arches are common on the chalk, where flint could not be used. Four of the well-built kilns in the Langton Herring area have double brick arches (see Plate 5). Two remarkably low-centred Type B brick arches were noted in west Dorset, at Gribb Farm (site 128), which has a stone keystone, and at Cogden Farm (site 39), where the bricks have been removed.

Type A round stone arches are more common around Sherborne in north Dorset (Plate 6). This is also an area noted for Type D timber lintels, which were cheaper to build in terms of materials. At Melbury Hill (site 154), a timber lintel was replaced by a brick arch, indicating the former style was an early one. The Bishop's limekiln has double timber lintels (Figure 6).

The access tunnel Type F, where the arch continues in to form a deep recess, is confined to the larger commercial kilns (sites 174-5 and 228-32).

While many limekilns had a lime shed, at least four had a tunnel approach. The finest is at Whitmore Coppice (Plates 3 and 4, and Figure 6), with others at Penn Wood, Lake and Ridgeway (sites 160, 256 and 279). These kilns could be given their own classification because of such distinct features.

The draw arch recess

Some recesses have a broad apsidal or 'beehive' form, the most impressive being at Bucknowle and Hill Farm (sites 65 and 289). The recess can be deep, shallow, square or tapered; it may narrow to the width of the draw-hole at the back, as at East Compton (site 68). The arched ceiling, in brick or stone, is horizontal or slopes down towards the back. Most of the original recess floors are hidden by an accumulation of soil, rubble and general rubbish. Nevertheless, three floor materials were observed: stone slabs at Hill Farm (site 289), brick at Melbury Hill (site 154) and stone or beaten lime at Bell House (site 127).

Plate 2. New Lane, Swyre. A small pointed arch Type C limekiln. July 1993.

Table 3. A typology of Dorset limekilns according to draw arch style

Type	Description	Examples known
A.	Round arch (Stone)	12
B.	Round arch (Brick)	25
B1.	(with double arches)	5
C.	Pointed arch (Stone)	20
C1.	(in brick)	1
D.	Timber lintel	4
D1.	(with double lintels)	2
E.	Miscellaneous (brick opening)	1
F.	Access tunnel type (brick)	7
G.	Concrete arch (bank of 2)	2
H.	Suffolk brick kiln (converted)	4
I.	Steel cylinder type	1

Draw-holes were usually rectangular, in stone or with a round brick arch (Plates 5, 6 and 7) and some kilns have evidence of an iron fire door. At Hill Farm (site 289), there was also a lower door for drawing out ash. The smaller poking holes were likewise built in stone or brick (Plates 6 and 7), and show signs of wear if used over long periods.

The kiln head

Workers and animals attending the charging of a limekiln were usually prevented from straying over the edge of the kiln head by

Plate 3. Whitmore Coppice limekiln at Langton Herring from the south, showing the retaining wall (restored) around the kiln head and pot. June 1993.

Plate 4. Whitmore Coppice limekiln from the north, showing the unusual tunnel approach to the draw arch area. June 1993.

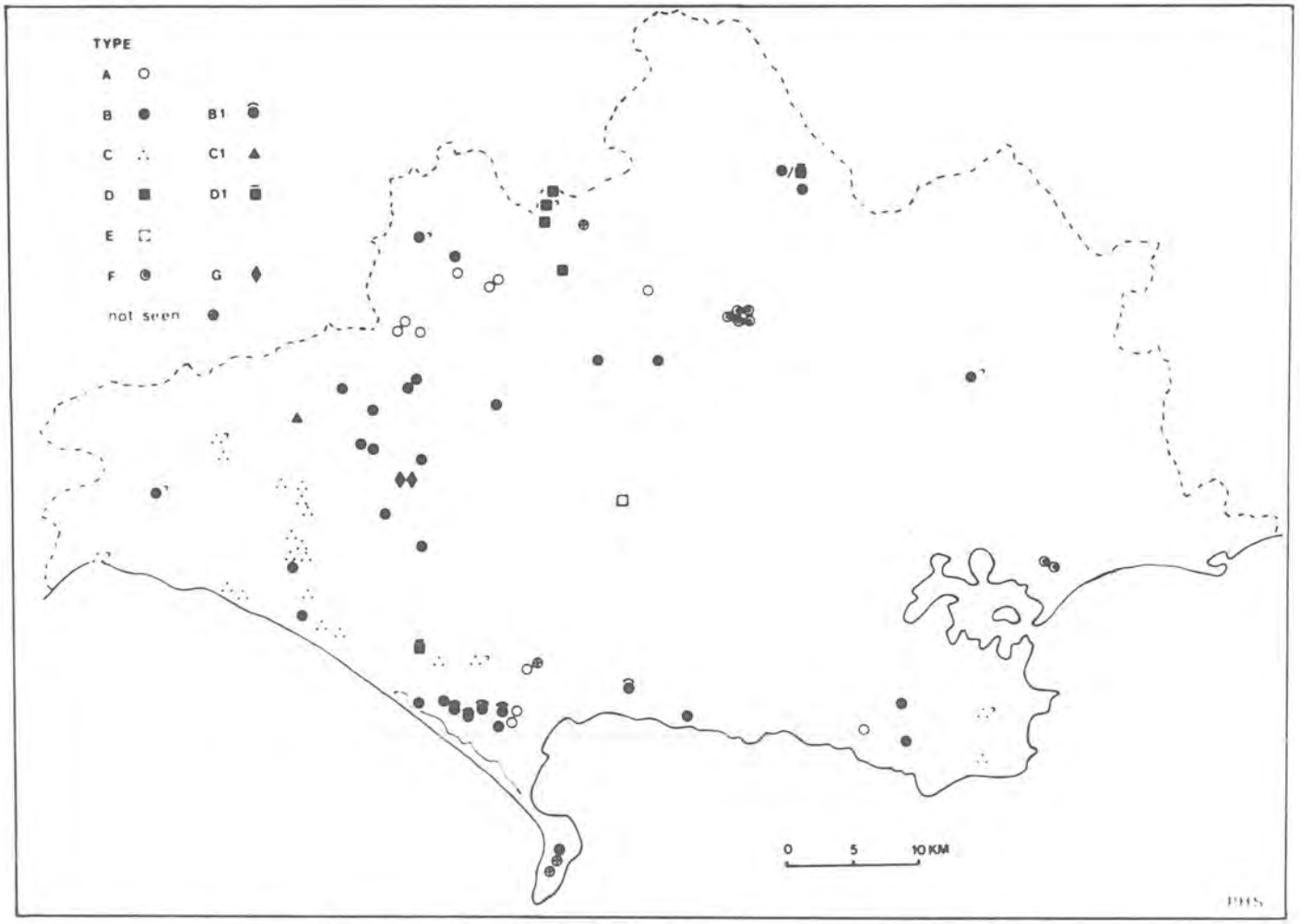


Figure 4. Distribution of surviving limekiln types according to draw arch style (see Table 3).

surrounding walls. These are often now ruinous, but enough survive to show they could be low, as at Rodden Ridge (site 4) or Limekiln Hill (site 214), or there was a much higher wall to give protection from the elements, as at Whitmore Coppice (Plate 3), Willwood and Nottington (sites 77 and 277).

The kiln pot

To ensure good insulation and prevent unnecessary loss of heat, the pot was surrounded by a thick rubble infill behind the kiln walls or was built entirely within the ground. The pot was always built of header-bonded bricks, with the exception of two stone-lined examples at Caundle Wake and Haydon Hill Wood (sites 18 and 105). These two might have been flare kilns for very intermittent firing. The Haydon Quarry kiln (site 141) was finished in stone near the base.

The bricks were ordinary types which became highly vitrified and damaged with long periods of use, and most surviving pots show this evidence of intense heating. The heat could also cause structural damage to the kiln as a whole, and a builder's accounts refer to a limekiln being 'taken down' and rebuilt by two men from 23 August to 6 September 1866 (DRO.D449/5). Firebricks were found only at Gospel Ash Farm (site 217) and Waddon Hill (site 249). Some kilns had stretcher-bonded bricks laid outside the inner course for better strength and insulation. An economy measure was observed at North Hill limekiln (site 64), built entirely into a bank, where all the pot bricks had been cut in half. This suggests the kiln was intended for a short life, perhaps for an estate building project. The pot is choked with hardened lime, which hints of abandonment upon completion of the work.

There was always the danger of livestock falling into an unfenced kiln, and several farmers cited this as the reason for the draw-hole area being destroyed while rescuing some unfortunate animal. Many pots were filled with rubble to make them safe, although the top brick courses may still be exposed. More drastically, kilns were deliberately demolished (being a source of building stone or road making material) and only a segment of the pot's back wall may survive. Three pots remaining fully open, at Bucknowle, Bell House and Limekiln Hill (sites 65, 127, and 214), result from restoration.

All the pots of the recorded kilns are cylindrical with diameters from 1.2m to 2m (Table 4). The most common shape has vertical sides, tapering towards the bottom. However, the Haydon Quarry pot has an irregular profile, while the firebrick pot at Gospel Ash has a swollen shape narrowing at the top where it is held by a cast-iron rim (Figure 5). The Willwood limekiln (site 77) also has an iron band to hold the top brick course, to prevent damage.

Size and capacity

Relative capacities can be compared using an approximate formula devised by David Bick (1984, 91):

$$\text{Volume } V = 0.75\pi\frac{d^2h}{4}$$

(d = diameter of pot; h = height of kiln)

The small size of 26 Dorset limekilns is immediately apparent when compared with examples from other counties in Table 4. These figures suggest that most Dorset limekilns were for local farmers' use only. Despite its pretensions, the Bucknowle limekiln (Figure 6) had a relatively small pot and capacity. The only exceptions are the industrial-scale kilns. One of the four kilns presently burning at Shillingstone has a height of 9.1m, while the two banks of kilns at Apsley Limeworks and Whitesheet Hill were respectively 8.6m and 6.7m high.

Lime sheds

The lime shed attached to the front of the structure is a feature of many Dorset limekilns (Plate 8), protecting the quicklime from the weather when being discharged from the kiln and handled by the lime-burner. A common form was a simple lean-to, with side

Plate 5. Double draw arches and a high quality of building seen at the Whitmore Coppice limekiln. The site was flooded on the day of the photograph. June 1993.

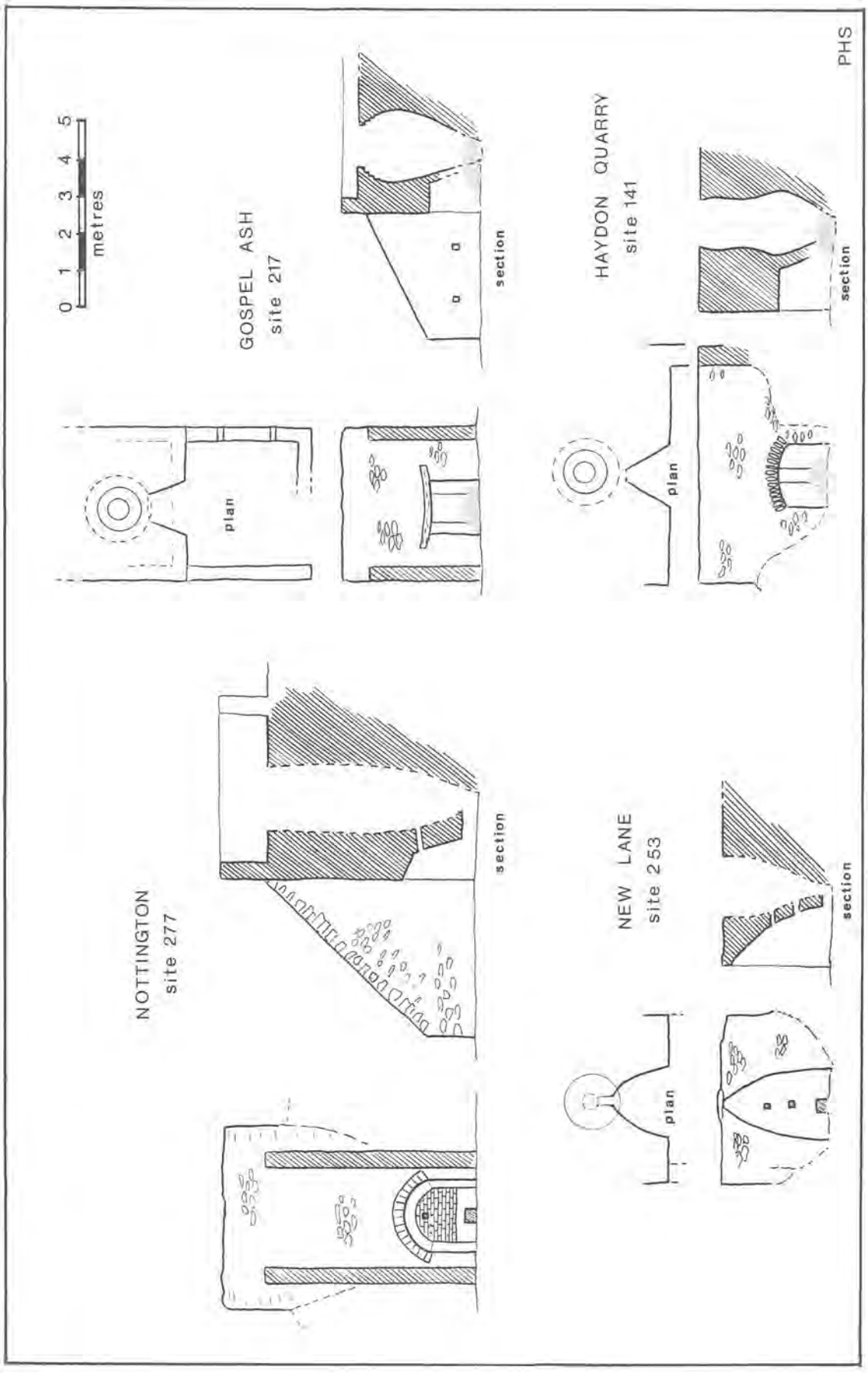


Figure 5. Some Dorset limekilns (part one).

Table 4. Size and Capacity of Measured Limekilns

Limekiln (site)	diameter (m)	height (m)	Volume (m^3)
Shillingstone (228)	3.5	9.1	65.66
Loders Cross (131)	1.8	5.2	9.92
Middle Farm (59)	2.0	3.9	9.18
Bothenhampton (19)	1.85	4.5	9.08
Limekiln Hill (214)	1.75	5.0	9.02
Bucknowle (65)	1.6	5.2	7.85
Nottington (277)	1.5	5.8	7.68
Whitmore Coppice (116)	1.7	4.5	7.66
Bell House (127)	1.6	4.55	6.86
Gribb Farm (128)	1.6	4.5	6.78
Rodden Ridge (4)	1.6	4.0	6.03
Hill Farm (83)	1.8	3.1	5.91
Cogden Farm (39)	1.65	3.6	5.77
Mythe Hill (144)	1.5	4.05	5.37
Bredy North Hill (36)	1.85	2.5	5.04
Haydon Quarry (141)	1.6av	3.3	4.97
New Lane (253)	1.7	2.9	4.94
West Cliff (254)	1.65	3+	4.81
Gospel Ash (217)	1.57av	3.2	4.65
East Chickerell (56)	1.6	2.8	4.22
Willwood (77)	1.3	3.5	3.48
Hammond Street Farm (145)	1.2	4.1	3.48
Perwen Farm (132)	1.6	2.3	3.47
Manor Farm (26)	1.8	1.8+	3.43
Haydon Hill Wood (105)	1.2	3.3	2.8
Druce Higher Barn (212)	1.15	2.9	2.26
GLOUCESTERSHIRE[1]			
Green's Quarry 4	5.2	8.2	130.2
Green's Quarry 3	3.35	8.2	53.8
Hay Farm	2.06	4.87	6.8
SOMERSET[2]			
Tengore Lane	3.0	6.0	31.9
Warren Bay 3	3.0	4.5	23.8
Warren Bay 1	2.2	6.2	17.6
Union Drove	2.0	6.0	14.2
CORNWALL[3]			
Moorswater (pair)	2.74	7.0	30.9

Sources: 1. Bick 1984, 91; 2. Daniel and Murless 1992, 11, and 1993, 5; 3. author and M. Watts, see Williams, 1989, 30)

walls built into the bank, as at Compton Valence (site 69) or Mythe Hill (site 144). Good examples of more substantial free-standing sheds still roofed can be seen at Longburton (sites 138-9), Halfway House (site 166), Sturt Farm (site 246) and Yetminster (sites 294 and 298). Beam holes in the wall above the draw arch show that Bucknowle (site 65) also had a lean-to shed. Other lime sheds have gable roofs, such as Bell House (Plate 8), Rodden Ridge and Willwood (sites 4 and 77), the roof of the last having a hipped end. The trace of a pointed gable can be seen on the wall at Limekiln Hill. Maps show many limekilns with sheds, now reduced to a low crumbling wall, or vanished as at the Bishop's Limekiln (site 3). The commonest roofing material is corrugated iron, although there are tiles at Gospel Ash, stone tiles at Willwood and slates at Poxwell Lodge (sites 217, 77 and 211).

Plate 6. Stone draw arch, recess, poking hole and draw-hole at Old Quarry limekiln, Longburton. July 1993. Scale: 1 metre.

Lime-burners' shelters

The lime-burner had to be in attendance for many hours at critical times. He may have found a resting place in a corner of the lime shed, unless a special shelter was provided. The most convincing is the unique 'bothy' with Gothic window and fireplace, built within the structure at Bucknowle (Figure 6 and Plate 9). It was refloored during restoration by the Dorset Countryside Volunteers in the early 1980s. Lake (site 256) has a shelter or side store, while a blocked doorway was noted in the side of the tunnel at Ridgeway (site 279). Such rare places are not unknown elsewhere in South-West England.

Conclusion

The humble limekiln represents a rural industry that came and went within a relatively short period. Appendix 1 shows the extent to which the limekilns survived in 1992-3. The 62 kilns graded 1-3 are of particular interest for the amount of preservation (over 60%), although most others have some local merit. Some disused limekilns have been maintained by serving other functions, most usually the lime sheds for storage, but at least two saw duty in the Second World War. Berry Knap (site 2), which commands a valley down to the Fleet, had a small concrete pill-box erected upon it, while Downs Lane (site 294) at Yetminster appears to have had an observation post or similar structure.

A few limekilns have been restored, such as at Bishop's, Bucknowle, Limekiln Hill (National Trust) and Whitmore Coppice, but many more deserve some form of recognition or preservation. They are as much a part of the landscape heritage as any Roman or prehistoric monument, and it is to be hoped that this initial survey will have drawn attention to a forgotten aspect of Dorset's archaeology.

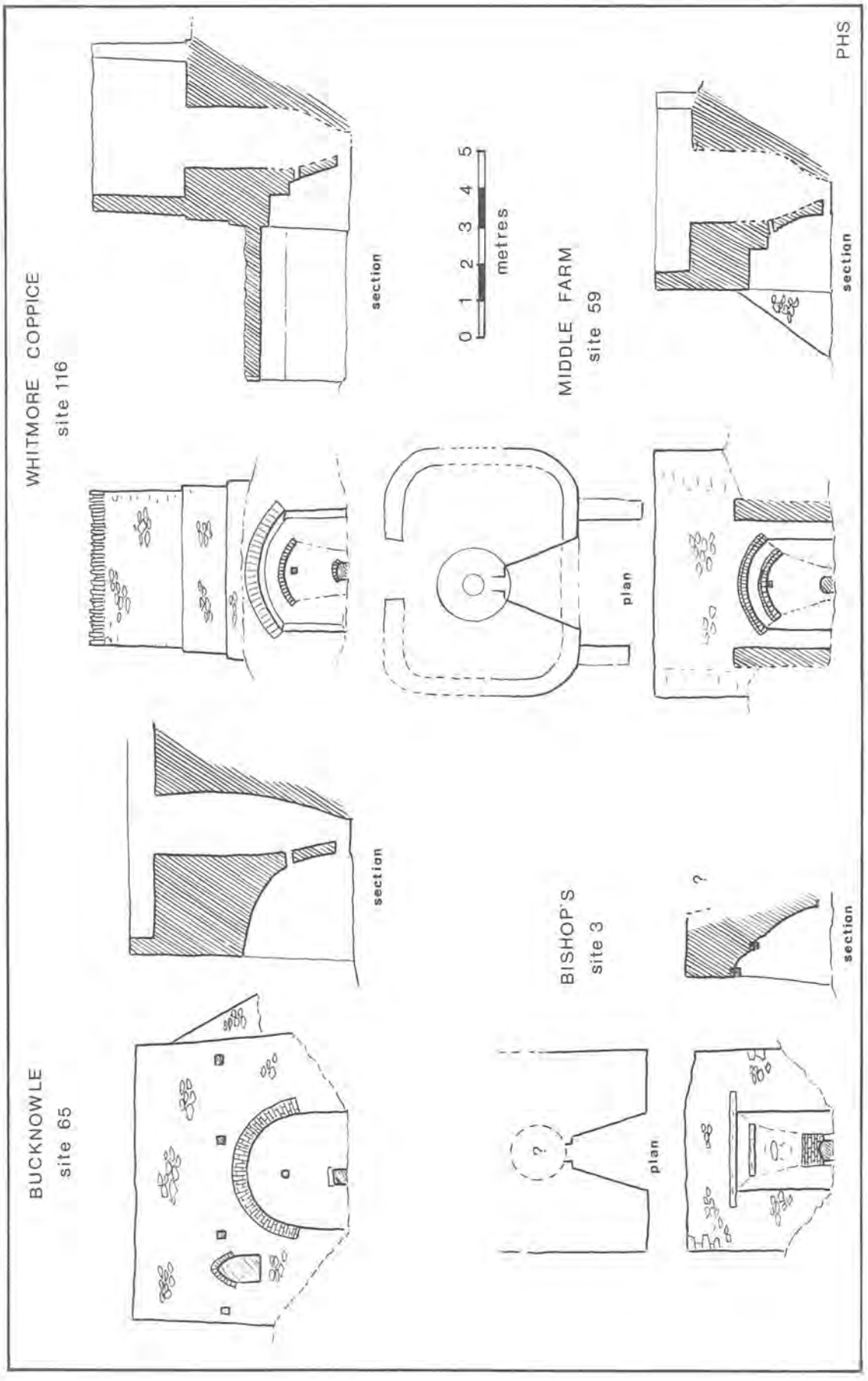


Figure 6. Some Dorset limekilns (part two).

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A NOTE ON HOGSHEADS AND BUSHELS

The hogshead was a common measurement for lime sold from the kiln, and it was said that 1 hogshead = 4 bushels. A bushel of lime weighed between 84lbs and a hundredweight (112lbs), or 38-50.7kg, so one Dorset hogshead could weigh up to 336lbs, or 152.2kg. A packhorse could carry about 400lbs (181kg).

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Plate 7. Brick-arched draw-hole at Downs Lane limekiln, Yetminster. July 1993. Scale: 0.5 metre.

Plate 8. Bell House limekiln, Loders: a well preserved limekiln and lime shed viewed from the west. July 1993. Scale: 1 metre.

Plate 9. Bucknowle limekiln at Church Knowle, showing the brick draw arch and the lime-burner's bothy window. 1988.

Appendix 1. Limekiln Sites: map evidence and survival

Site No.	PARISH Limekiln	Grid Ref	Geology	Map evidence 1900-2	Survival/condition 1992-3	Type
	ABBOTSBURY					
1	Abbotsbury	SY57438606	ChL	OL	6.5	
2	Berry Knap	SY59148295	Cb	OL	5.4	B
3	"Bishop's"	SY58798588	ChL	OL	2.2	D1
4	Rodden Ridge	SY60938321	Cb	OL	2.3	B
	ASKERSWELL					
5	Eggardon Hill	SY53509507	ChL	OL	x	
	BEAMINSTER					
6	Barrowfield Farm	ST46750150	Io	L	x	
7	Buckham Down E	ST48500324	ChL	L	6.5	
8	Buckham Down W	ST48480333	ChL	L	6.5	
9	Chapel Marsh	ST48440393	ChL	OL	6.5	
10	Cockroad Lane	ST46910189	Io	OL	x	
11	Coombe Down Hill	ST48739985	Io	OL	4.5	
12	Higher Langdon	ST50750257	ChL	OL	6.5	
13	Mapperton Farm	SY49159955	Io	OL	x	
14	White Sheet Hill	ST49300243	ChL	OL	6.5	
	BERE REGIS					
15	Cow Drove	SY85399501	ChU	L	x	
	BINCOMBE					
16	Coombe Valley	SY69338372	P/P	L	x	
	BISHOPS CAUNDLE					
17	Caundle Lane	ST70191319	Cb	L	x	
18	Caundle Wake	ST70011276	Cb	OL	3.4	D
	BOTHENHAMPTON					
19	Bothenhampton	SY47079152	Fm	XL	3.4	C
20	Marrowbone Farm	SY47209150	Fm	L	x	
21	Walditch Knap	SY48499222	Io	OL	5.4	
22	Wych	SY47559118	Fm	L	x	
	BRADFORD ABBAS					
23	Old Mill	ST59101405	Io	L	3.3	
	BROADWINDSOR					
24	Colepay Cottage	ST43340346	Io	OL	x	
25	Common Water Lane	ST44180278	Io	OL	x	
26	Manor Farm	ST44420250	Io	OL	3.3	C?
27	Horn Park	ST45780207	Io	OL	x	
28	Wantsley Farm	ST45510225	Io	X	x	
29	Whetley Farm	ST45080418	Io	OL	x	
	BRYANSTON					
30	"Norton Limekiln"	ST86020532	ChU	x	x	
	BUCKLAND NEWTON					
31	Castle Hill Farm	ST68720700	ChL	OL	x	
32	Castle Lane Quarry	ST70280516	ChL/M	L	x	
33	Modus Coppice	ST67200465	ChL	OL	6.5	
34	Ridge Wood	ST68550560	ChL	L	x	
	BURTON BRADSTOCK					
35	Bennett's Hill	SY48639072	Fm	OL	x	
36	Bredy North Hill	SY51109066	Cb	OL	3.3	C
37	Bredy North Hill W	SY50789048	Cb	OL	x	
38	Bredy Road	SY49928940	Fm	OL	x	
39	Cogden Farm	SY50488920	Fm	OL	3.3	B
40	North Hill	SY48609038	Fm	OL	x	
41	West Bay Harbour	SY46259038	x	x	x	
	CANN					
42	Cann Hill North	ST88682165	ChL	OL	x	
43	Cann Hill South	ST88592142	ChL	L	x	
	CATTISTOCK					
44	Middle Hill	ST59820011	ChL	OL	2.3	B
	CAUNDLE MARSH					
45	Pleck Cottages	ST68251287	Cb	OL	x	
	CERNE ABBAS					
46	Cerne Abbas	ST66850164	ChM	L	6.4	
	CHALDON HERRING					
47	Chaldon Down	SY78458165	ChU	OL	3.2	B
48	Chaldon Herring	SY79738339	ChU	L	6.4	
49	Chideock Farm	SY79778145	ChU	OL	6.4	
50	West Chaldon	SY77908301	ChL	L	5.4	
	CHARMOUTH					
51	Charmouth 1	SY36429304	Lias	L	5.3	C?
52	Charmouth 2	SY36429304	Lias	M	x	
53	Charmouth East	cSY367930	Lias	x	x	
	CHICKERELL					
54	Chickerell	SY64448095	Cb	OL	4.3	B
55	Church	SY64328078	Cb	OL	x	
56	East Chickerell	SY65458075	Cb	OL	4.4	A
57	Fleet Lodge	SY64078051	Cb	OL	6.5	
58	Lower Ridge Close	cSY64108246	Cb	x	x	
59	Middle Farm	SY64368253	Cb	L	2.3	B1
60	Putton Farm	SY65288058	Cb	OL	x	
61	Tatton Coppice	SY63138249	Cb	L	x	
	CHIDEOCK					
62	Chideock	SY41829282	Eb	OL	x	
63	Quarry Hill	SY43419302	Io	x?	x	
	CHILFROME					
64	North Hill	SY57389967	ChL	OL	5.5	
	CHURCH KNOWLE					
65	Bucknowle	SY94558223	ChM	OL	1.1	B
66	Stonehill Down	SY92298212	ChU	L	x	
67	West Orchard Farm	cSY940800	Pb	x	x	
	COMPTON ABBAS					
68	East Compton	ST87951883	ChL	OL	3.2	B
	COMPTON VALENCE					
69	Compton V. Farm	SY59809330	ChL	OL	4.3	B
	COOMBE KEYNES					
70	Coombe Chalk Pit	SY84218472	ChU	L	x	
	CORFE CASTLE					
71	Black Hills	SY97558310	x	x	x	
72	Brenscombe Hill	SY98638204	ChU	OL	x	
73	Challow Hill	SY96988245	ChU	L	x	
74	Corfe Castle	SY95958245	ChU	OL	x	
75	Limekiln Close	SY97438305	x	x	x	
76	Ower Passage	SY99708607	x	x	x	
77	"Willwood"	SY94787985	Pb	L	2.2	B
78	Wytch Heath	SY97458465	x	x	con-served	
	CORSCOMBE					
79	Catsley Farm E	ST52930365	ChL	OL	x	
80	Catsley Farm W	ST52650347	ChL	OL	6.4	
81	Hackney	ST51350511	ChL	OL	6.5	
82	Hill Close Copse	ST51110471	ChL	OL	x	
83	Hill Farm	ST50820384	ChL	OL	3.3	C1
84	Toller Whelme	ST51490200	ChL	OL	x	
85	Weston	ST50200525	ChL	OL	x	
	DURWESTON					
86	Traveller's Rest	ST84340735	ChU	OL	x	

Site No.	PARISH Limekiln	Grid Ref	Geology	Map evidence 1900-2	Survival/condition 1992-3	Type
	EAST CHELBOROUGH					
87-88	Castle Hill (2)	ST55220542	ChL	L(2)	x	
89	White Close	ST55220560	ChL	L	5.5	
	EAST LULWORTH					
90	Gatemerston	SY84158108	ChU	OL	x	
91	Park Lodge	SY84788310	ChU	OL	5.3	
	EAST STOUR					
92	Heavland Lane	ST79502325	Cr	OL	x	
93	Lotmoor Hill	ST79582302	Cr	OL	x	
	EDMONDSHAM					
94	St Giles Lodge	SU04601115	ChU	OL	x	
	FIFEHEAD NEVILLE					
95	Home Farm	ST76901078	Cr	OL	x	
	FLEET					
96	Fleet Common	SY63808040	Cb	L	x	
	FOLKE					
97	West Hall	ST65621290	Cb	OL	x	
	FROME ST QUENTIN					
98	Frome Farm	ST59990218	ChL	OL	x	
99	Horchester	ST60000423	ChL	L	x	
	GILLINGHAM					
100	Bleet Lane	ST79702470	Cr	OL	x	
101	Standpitts Lane	ST80152464	Cr	L	x	
	GLANVILLES WOOTTON					
102	Hamper's Farm	ST68750853	Cr	OL	x	
103	Nursery Lane	ST68800768	ChL	OL	x	
	GOATHILL					
104	Goathill Farm	ST67121755	Io	OL	6.5	
	HAYDON					
105	Haydon Hill Wood	ST67751600	Fr	OL	2.3	A
	HAZELBURY BRYAN					
106	Droop	ST75380827	Cr	L	5.3	
107	Locketts Farm	ST76120880	Cr	OL	x	
	HILFIELD					
108	Hill Coppice	ST64350525	ChL	L	6.5	
109	Ruppen Coppice	ST63900450	ChL	L	6.5	
	HILTON					
110	Links Plantation	ST77680261	ChL	L	4.4	
	HINTON PARVA					
111	Hinton (Stanbridge)	SU00100485	ChU	OL	6.5	B?
	HOOKE					
112	Hooke	ST52780074	ChL	OL	x	
	IWERNE MINSTER					
113	Lime Pit Coppice	ST89151422	ChU	OL	x	
	LANGTON HERRING					
114	Limekiln Ground	SY61488272	Cb	OL	6.5	
115	Lower Street	SY61588261	Cb	OL	2.3	B1
116	Whitmore Coppice	SY62198250	Cb	OL	1.1	B1
117	Yonder Beales	cSY62188245	Cb	x	x	
	LANGTON LONG BLANDFORD					
118	Hungry Down East	ST90560679	ChU	L	x	
119	Hungry Down West	ST90550679	ChU	L	x	
	LANGTON MATRAVERS					
120	Mount Misery	SY99107895	Pb	M	x	
121	South Barn	SZ00777804	Pb	M	2.3	C
	LILLINGTON					
122	Gordon's Lane	ST63151316	Cb	L	5.5	
123	Higher Farm	ST62791325	Cb	OL	5.3	A
124	Limekiln Beacon	ST61981226	Cb	L	x	
125	Lower Farm	ST62781291	Cb	L	x	
	LITTON CHENEY					
126	Turner's Farm Barn	SY55699171	ChU	OL	x	
	LODERS					
127	Bell House	SY49909489	Io	OL	2.2	C
128	Gribb Farm	SY50419277	Io	OL	3.3	B
129	Innsacre (Green Hill)	SY49609258	Io	OL	x	
130	Knowl Hill	SY49859359	Io	x	x	
131	Loders Cross	SY50329293	Io	L	3.3	C
132	Perwen Farm	SY51309325	Io	L	5.3	
133	Uploders Farm	SY50829289	Io	OL	x	
134	Upton Manor Farm	SY51059370	Io	OL	5.5	C?
135	Vinney Cross	SY51009294	Io	L	2.4	C
	LONGBURTON					
136	Bradford Lane	ST64751199	Cb	L	6.3	
137	BL-Dyke Head	ST64351187	Cb	L	6.5	
138	BL-Lawnswood	ST64821220	Cb	L	2.2	A
139	BL-Old Quarry	ST64791210	Cb	L	3.2	A
140	Leweston Farm	ST64251415	Cb	OL	6.5	
	LYDLINCH					
141	Haydon Quarry	ST76511178	Cr	OL	2.2	A
142	Plumber Quarry	ST76561182	Cr	OL	x	
	LYME REGIS					
143	Cement Works	SY33539153	Lias	L	x	
	MAPPERTON					
144	Mythe Hill	SY49659880	Io	OL	2.2	C
	MAPPOWDER					
145	Hammond Street Farm	ST73190668	Cr	OL	2.3	B
146	Saunders Farm	ST74280558	Cr	OL	x	
	MARNHULL					
147-8	Gannetts (2)	ST79461965	Cr	OL(2)	x	
149	Great Down Quarry	ST79352030	Cr	L	x	
150	Marnhull	ST78521890	Cr	L	x	
151-2	Whiteway Hill (2)	ST79351782	Cr	L(2)	x	
	MARSHWOOD					
153	Oakford Farm	SY40659850	Lias	OL	x	(B?)
	MELBURY ABBAS					
154	Melbury Hill	ST86991974	ChL	L	3.2	B/D1
	MELBURY BUBB					
155	Bubb Down Farm	ST59440658	ChL	L	3.4	B
156	Stock Wood	ST58910650	ChL/M	L	6.5	B
157	Woolcombe Farm	ST59500535	ChL	OL	x	
	MELBURY OSMOND					
158	Higher Holt Farm	ST56200867	Cb/Fm	OL	x	
	MINTERNE MAGNA					
159	Dunsley Plantation	ST65670397	ChM	X	6.4	B
160	Penn Wood	ST64810567	ChL	L	4.4	
	MOOR CRICHEL					
161	Cockroad Farm	ST98310929	ChU	OL	x	
	NETHERBURY					
162	Brown's Hill	SY49099613	Io	OL	x	
163	Mangerton Hill N	SY49039678	Io	OL	x	
164	Mangerton Hill S	SY49039665	Io	OL	x	
165	North Warren Hill	SY48569960	Io	OL	6.4	
	NETHER COMPTON					
166	Halfway House	ST60181625	Io	L	2.2	B?
	NORTH POORTON					
167	North Poorton	SY51259800	Io	OL	3.3	C

Site No.	Limekiln	Grid Ref	Geology	Map evidence 1900-2	Survival/condition 1992-3	Type
	PARISH OSMINGTON					
168	Osmington	SY72788332	Pb	OL	6.5	
169	Short Lake	SY72258233	Pb	OL	x	
170	Spring Bottom Hill	SY73908240	ChL	L	x	
	OWERMOIGNE					
171	Owermoigne	SY76598503	ChU	OL	x	
	PIMPERNE					
172	France Firs	ST88350940	ChU	L	x	
173	Pimperne Fox Warren	ST90191120	ChU	OL	x	
	POOLE					
174-5	Apsley Lime Works(2)	SZ06099221	x	x(2)	3.2	F
176-7	Foxholes A (2)	SZ02759265	x	L(2)	x	(H)
178-9	Foxholes B (2)	SZ02759265	x	L(2)	x	(H)
	PORTESHAM					
180	Corton Down	SY63688671	Ch	OL	x	
181	Drift Plantation	SY62708320	Cb	OL	x	
182	Friar Waddon Hill	SY64488539	Pt	OL	6.5	
183	Langton Cross	SY62428248	Cb	OL	2.2	B1
184	Old Portesham	SY60608628	ChU	OL	x	
185	Portesham Quarry E	SY61098594	Pt	OL	x	
186	Portesham Quarry W	SY60858588	Pt	L	2.3	C
187	Snipe Gate	SY62248323	Cb	OL	x	
188	Waddon	SY62268583	Pt	OL	4.4	C?
	PORTLAND					
189	Admiralty Quarries	SY69617278	P/P	L	x	
190	Avalanche Road	SY68607070	P/P	L	3.3	?
191	Easton Lane	SY69057273	P/P	M	1.1	B
192	Grove	cSY702724	P/P	x	x	
193	Grove Stone Yard	SY70107255	P/P	x?	x	
194	Inmosthay	SY69057255	P/P	XT	3.3	?
195	Limekiln Cave	SY68956955	P/P	x	x	
196	Verne Yeates 1	SY68857301	P/P	x	x	
197	Verne Yeates 2	SY68857301	P/P	x	x	
198	Verne Yeates 3	SY68907303	P/P	x	x	
199	Verne Yeates E	SY68917300	P/P	L	6.5	
200	Verne Yeates W	SY68887299	P/P	L	x	
201-4	Wide Street (4)	SY68447230	P/P	XT(4)	x	
	POWERSTOCK					
205	Earnscombe	SY50989571	Io	OL	x	
206	Hine's Lane	SY51059542	Io	OL	x	
207	Nettlecombe	SY51659568	Io	L	2.4	C
208	New Barn	SY49989682	Io	OL	x	
209	Powerstock	SY51619651	Io	OL	4.4	C
210	Spring Hill Farm	SY51639778	Io	OL	x	
	POXWELL					
211	Poxwell Lodge	SY74308352	P/P	L	3.3	B1
	PUDDLETOWN					
212	Druce Higher Barn	SY74909721	ChU	OL	3.3	E
	PUNCKNOWLE					
213	Green Leaze	SY54048775	Fm	OL	x	
214	Limekiln Hill	SY54028705	Fm	OL	1.1	C
215	Look Farm	SY55108845	Fm/Cb	OL	x	
	PURSE CAUNDLE					
216	Crendle Corner	ST69051815	Fr	OL	6.5	D?
217	Gospel Ash	ST69251889	Fr	L	2.3	D
218	Rue Lane	ST68441586	Fr	L	2.4	D
219	Trip's Farm	ST68481597	Fr	L	x	
	RAMPISHAM					
220	Higher Coombe Farm	ST56650390	ChL	OL	4.5	B
221	Old Wood	ST55420134	ChL	OL	4.3	B
	PARISH RYME INTRINSICA					
222	Common Lane	ST58201067	Cb	L	x	
223	Downs Lane	ST57151075	Cb	M	x	
	SEABOROUGH					
224	Higher Farm	ST42650635	ChL	OL	x	
225	Honey Down	ST43230734	ChL	OL	x	
	SHERBORNE					
226	Clatcombe Dairy	ST63681773	Io	x	x	
227	Clatcombe Farm	ST63581795	Io	OL	x	
	SHILLINGSTONE					
228-32	Shillingstone (5)	ST82320996	Ch	XT(5)	1.1	F
233-5	Shillingstone Hill (3)	ST82320997	ChM	L(3)	x	
	SHIPTON GORGE					
236	Bonscombe	SY48689197	Io	OL	x	
237	Shipton Gorge	SY49559154	Io	OL	x	
	SHROTON					
238	Hambledon Hill	ST84311310	ChL	L	x	
	SILTON					
239	Slait Barn	ST76682871	Cr	OL	x	
	SOUTHBOURNE (was Hampshire)					
240	Hengistbury Head	SZ17709100	x	OL	x?	
	SOUTH PERROTT					
241	New Bridge North	ST46660741	Io	L	x	
242	New Bridge South	ST46750724	Io	L	6.5	
243	South Perrott	ST47300733	Io	L	x	
	STALBRIDGE					
244-5	Newholme Farm (2)	ST73181869	Cb	L(2)	6.5	
246	Sturt Farm	ST72451704	Cb	L	2.2	?
	STANTON ST GABRIEL					
247	Westhay Water	SY38609265	Lias	OL	5.5	
	STEEPLE					
248	Beach Coppice	SY91758035	Pb	OL	4.4	A
	STOKE ABBOT					
249	Waddon Hill	ST44850147	Io	L	5.4	C
	STOUR PROVOST					
250	Stour Provost	ST79692178	Cr	OL	x	
	SWANAGE					
251	Round Down	SZ01658090	ChM	L	5.2	C?
	SWYRE					
252	Berwick	SY52328921	Fm	OL	x	
253	New Lane	SY52158800	Fm	OL	2.2	C
	SYMONDSBURY					
254	West Cliff	SY45409090	Fm	OL	2.3	C
	TARRANT GUNVILLE					
255	Westbury Farm	ST90701262	ChU	OL	x	
	THORNFORD					
256	Lake	ST61301385	Fr	OL	2.2	B
	TODBER					
257-8	Todber (2)	ST80152001	Cr	L(2)	x	
	TOLLER FRATRUM					
259-60	Whitesheet Hill (2)	SY58609805	Ch	XT(2)	2.1	G
261	Whitesheet Hill E	SY58619801	ChL	L	x	
262	Whitesheet Hill W	SY58509801	ChL	OL	x	
	TOLLER PORCORUM					
263	Higher Kingcombe Barn	SY54300061	ChL/M	OL	6.4	
264	Kingcombe Lane	SY55100055	ChL/M	OL	x	
265	Woolcombe Farm	SY55309545	ChL	OL	5.4	

Site No.	PARISH Limekiln	Grid Ref	Geology	Map evidence 1900-2	Survival/condition 1992-3	Type
	UP CERNE					
266	Bazon Barn	ST64950382	ChL	L	x	
	WARMWELL					
267	Warmwell Cross	SY74618541	ChU	L	x	
	WEST CHELBOROUGH					
268	Chelborough Hill	ST54200490	ChL	OL	4.4	B
	WEST COMPTON					
269	West Compton	SY56119450	ChL	OL	x	
	WEST KNIGHTON					
270	Huish Barn	SY72608511	ChU	OL	x	
	WEST LULWORTH					
271	Lulworth Cove	SY82457998	ChL	M	x	
	WEYMOUTH					
272	Barley Close	SY66198070	Cb	OL	x	
273	Chickerell Road	SY673786	Cr	x	x	
274	Corfehill Farm	SY66398199	Cb/Fm	OL	x	
275	Gas Works	SY675788	x	X	x	
276	Jordan Hill	SY69808205	Cr	L	x	
277	Nottington	SY65828238	Cb	OL	2.3	A
278	Radipole Lake	SY66758083	Cb	OL	x	
279	Ridgeway (Upwey)	SY67068500	Pb	L	4.2	A
280	South Meadow	SY67008094	Cb	X	x	
281	Thornhill Farm	SY67558318	Cr	OL	x	
282	Upwey	SY67108502	Pb	M	3.3	?
	WINFRITH NEWBURGH					
283	Coalhill Drove	SY80028455	ChU	OL	x	
284	Newburgh Farm	SY82888525	ChU	L	x	
	WINTERBORNE KINGSTON					
285	Winterborne Kingston	SY86029725	ChU	OL	x	
	WINTERBOURNE ST MARTIN					
286	Goldcombe Farm E	SY62288800	ChU	L	x	
287	Goldcombe Farm W	SY62268798	ChU	L	x	
	WOODLANDS					
288	Horton North Farm	SU03270865	ChU	OL	x	
	WOOLLAND					
289	Hill Farm	ST77290678	ChL	L	3.3	B
	WORTH MATRAVERS					
290	Worth Quarry	SY96887840	P/P	XT	x	(I)
	WRAXALL					
291	Wraxall Woods	ST56210090	ChL/M	L	5.5	B
	WYNFORD EAGLE					
292	Shatcombe Farm	SY56549542	ChL	OL	x	
293	The Batch	SY56209620	ChL	OL	3.4	B
	YETMINSTER					
294	Downs Lane	ST59991027	Cb	L	2.2	A
295	Quarry	ST58851031	Cb/Fm	L	3.3	A
296	Tark's Hill	ST59381022	Fm	L	x	
297	The Elm	ST59311038	Cb	L	x	
298	Village	ST59231063	Cb	L	3.3	A

Appendix 2. Limekiln Sites not fully identified

Site No.	PARISH Limekiln	Grid Ref	Geology	Evidence	Date
	CASTLETON				
A1	Limekiln Farm and Cottages	ST638154	Fr	Place Name	1900
	CHRISTCHURCH (was Hampshire)				
A2	Bargates	SZ...?	x	Lease	1829
A3	Hubborne	SZ...?	x	Lease	1829
	COOMBE KEYNES				
A4	Limekiln Cottages (Limekiln Yards in 1840)	SY84108320	ChU	Place Name	1900
	LONG BREDY				
A5	Limekiln Coppice	SY562871	Fm	Place Name	1841 & 1900
A6	Limekiln Ground	SY569882	ChL	Place Name	1841
	LYCHETT MATRAVERS				
A7	Limekiln Coppice	SZ952978	ChU	Place Name	1900
	LYME REGIS				
A8	Cobb	SY...?	Lias	Accounts	1824-8
	PIMPERNE				
A9	Kites Farm	ST887079	ChU	marked on map	1765
	SHIPTON GORGE				
A10	Limekiln Ground	SY492916	Io	Place Name	1839
	STINSFORD				
A11	Limekiln Copse	SY69959282	ChU	Place Name	1900
	STINSFORD				
A12	Slyer's Lane	SY...?	ChU	Advertisement	1825
	TOLLER PORCORUM				
A13	Whitesheet Hill	SY586980	ChL	pers. comm.	1930s
	TYNEHAM				
A14	L'kiln Plantation, Lower Limekilns, Higher Limekiln	SY888808	ChL/M	Place Names	1840

KEY:

Limestone Geology:

Cb	Cornbrash	Io	Inferior Oolite
Cb/Fm	Cornbrash or Forest Marble	Lias	Lower & Middle Lias (various)
Ch	Chalk (Lower, Middle and Upper)	Pb	Purbeck
Cr	Corallian	P/P	Purbeck or Portland
Fm	Forest Marble	Pt	Portland
Fr	Fullers Earth Rock	x	outside limestone areas

Map evidence in 1900-2

L	Limekiln	M	marked but not named
OL	Old Limekiln	XT	twentieth century limekiln
x	not marked		

Survival and condition in 1992-3:

SURVIVAL		CONDITION
1. complete		1. very good
2. almost	80-90%	2. good
3. most	60-79%	3. fair
4. some	40-59%	4. poor
5. little	20-39%	5. bad
6. very little	1-19%	
x no trace		

Note: With the exception of Bishop's, Norton and Willwood, all limekiln names are the author's own. Modern names for parishes and farms are given; some have changed since the time the kilns were in use. Likewise, the post-1974 county boundary is also used.

Excavation of a Bronze Age Round Barrow and Napoleonic Signal Station at Golden Cap, Stanton St Gabriel.

MARTIN PAPWORTH
with contributions from Alfred Cooksey, Jo Draper, George Elliott, Julian Richards, Rob Scaife

The excavation of a mound on the cliff edge at Golden Cap, West Dorset has provided pollen samples from an old land surface which has shown that the hill top vegetation was dominated by oak woodland in the Early Bronze Age. A radiocarbon date from charcoal in the buried soil provided two dates in the range 2,100-1,900 BC.
A cutting into the east side of the mound was associated with pottery of the late 18th- early 19th century. Documentary evidence suggests that this is the site of the Napoleonic signal station in use from 1798-1814.

INTRODUCTION

Golden Cap is a popular site for walkers using the coastal footpath. It is the highest cliff on the Dorset coast and commands views, on a clear day, from Start Point to the Isle of Portland. The popularity of the site has caused erosion to five barrow mounds on the ridge top. Four form a linear group and the fifth lies 200 m to the north-east. The National Trust, in consultation with English Heritage, agreed to protect the surface of the mounds by capping them using gravel. As part of this work the coastal path marker stone and Lord Antrim monument were moved approximately 30 m to the north to encourage walkers away from the barrow sites and limit erosion.

Before the capping took place, the surfaces of the mounds were recorded using contour and plane table survey techniques. (Fig.1)

The mound at the south-west end of the linear group, RCHM Stanton St Gabriel 5d (SY4054 9207), is gradually being destroyed by coastal erosion and it was decided to cut a section across the mound at the cliff edge. The excavation took place in June 1992.

LOCATION, TOPOGRAPHY AND GEOLOGY

Golden Cap is located on the west Dorset coast, a high cliff 190 m above O.D. linked by a narrow saddle of land to the wooded Langdon Hill to the north-east. Together they form a ridge that slopes down into the valleys containing St Gabriel's Water to the west and the River Winniford to the east. The Winniford flows into the sea at Seatown 1.5 km from the excavation site and the hamlet of St Gabriel lies 0.5 km to the west.

The truncation of the southern end of Golden Cap by marine erosion has revealed the geology of the ridge. A mantle of periglacial solifluction debris, consisting of angular lumps of chert gravel in a light grey sand, derives from the closely jointed Upper Greensand chert bed which lies below. This lies above the remaining 30 m of the Upper Greensand formation which consists of a yellow-orange fine sand known locally as Foxmould. Below these deposits are Gault, Middle and Lower Lias strata which consist of clays, silts and shales with occasional bands of limestone (Brunsden and Jones 1976, 607).

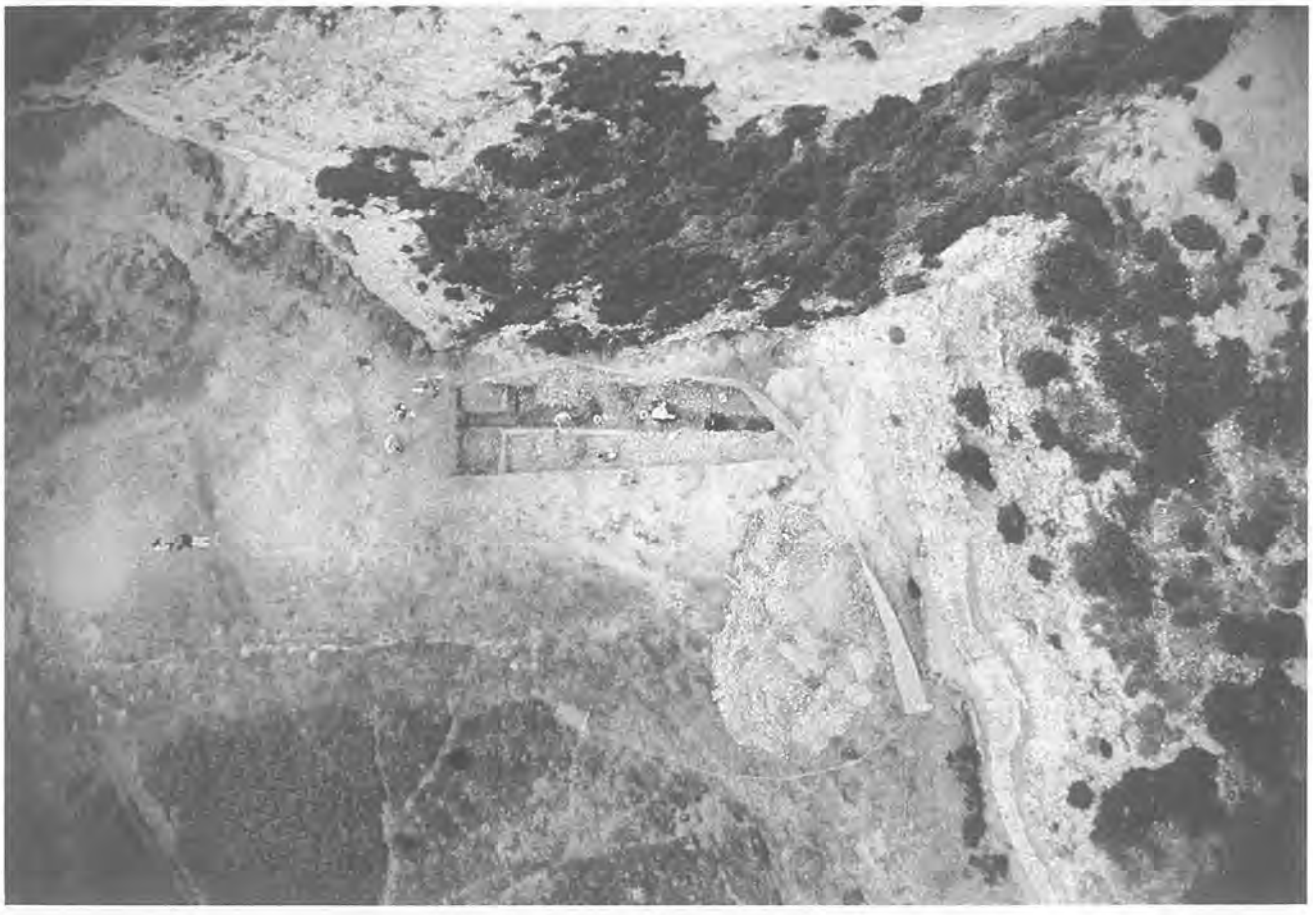

Plate 1 Aerial photograph of excavation site: sea to south at top.

Coastal Erosion

Recent studies on the coastal erosion rates at Golden Cap have been carried out for Dorset County & West Dorset District Councils (Bray 1986). Examination of the sea bed has shown that arcs of boulders continue seaward from Golden Cap for 2.5-3km. The most recent of these crescent shaped features can be seen at the foot of Golden Cap cliff. They are the remains of cliff falls after the lighter components of the collapse have been washed away by wave action. The extent of the boulder crescents indicate that Golden Cap was once part of a long ridge of land extending southwards between two river valleys. After the last glaciation the sea level rose approximately 100 m between 18,000-4,000 B.C. As water locked in the ice sheets melted, the water would have filled the English Channel to the level of a pre-glacial cliff line and at this point the Golden Cap ridge would have been re-affected by coastal erosion (Bray pers.comm.)

The past average erosion rates for this part of the coast, based on historic maps and aerial photographs, have been estimated as between 0.3-0.5 m a year (Bray pers. comm.). If this rate has been constant it would place the Golden Cap ridge between 1.2km and 2km further south in 2,000 BC.

The erosion is episodic. The Golden Cap cliff top area may remain stable for several decades and then a major collapse will occur taking a 10-20 m width of ground downslope to form an apron of debris against the foot of the cliff. This debris will form a temporary protective barrier against further erosion acting as a buffer to wave action. Gradually the debris will be washed away, with the exception of the larger boulders, and the cliff face will be exposed again and undermined. Rates of erosion are affected by weather conditions: severe storms and heavy rainfall will accelerate the process.

An examination of drawings and photographs of the view of Golden Cap cliff from Seatown, taken over the last 150 years, has demonstrated this cycle of erosion (Brunsden pers. comm.). When the pictures are matched with documented cliff falls it can be shown that when the cliff face profile is nearest to vertical a major cliff fall is imminent. Based on this evidence, it is likely that there will be a large scale cliff fall at Golden Cap in the next 10-20 years.

The rate of erosion is expected to increase as sea levels rise due to global warming (Bray pers comm.). If sea level rises at the predicted 4mm a year until the year 2,050, the erosion rate to the cliffs between Charmouth and Golden Cap are expected to increase to 0.5-1 m a year. This would mean that another 30-50 m of cliff would be lost during this period and the remaining round barrows at Golden Cap would be lost. Given that protection of the Golden Cap cliff face would be financially prohibitive, and eventually ineffectual, the geomorphological evidence argues strongly for the preservation by excavation record for this barrow group.

THE EXCAVATION

A north-east to south-west trench 22 m long and 4.3 m wide was aligned with the cliff face and excavated to reveal the original surface of the mound. In the southern half of this area, a trench 18 m long and 0.9 m wide was excavated to give a section through the mound to the buried land surface. For the central 4 m and coincident with the charcoal spread (22), the trench was widened to 2.3 m and at this point was 0.8 m from the cliff edge.

The first impression of the mound was of a low earthwork measuring 12 m in diameter and 0.5 m high but the excavation revealed that the site had been partially buried by sand derived from the Foxmould bed of Upper Greensand. During storms the sand is blown from the cliff face and deposited on the top of Golden Cap in the area immediately north of the cliff edge. When this sand was removed, a chert cairn was revealed which measured 16 m diameter and 1.2 m high. Approximately 40-50% of the mound had been lost through cliff erosion.

Below the topsoil was the yellow to orange sand (2) 0.3 m thick which lay above a darker but similar layer on the west side of the mound (5) up to 0.4 m deep.

On the east side of the mound the equivalent layer (10) deepened to 0.5 m at the foot of the mound slope and contained fragments of pottery, glass and iron nails dating to the late 18th-early 19th century. This lay above a scree of chert lumps (13) which covered another sand layer (14) above a chert scree (16) above a sand deposit (17). All of these layers contained similar finds to (10) and buried a building platform (24) which had been cut into the west side of the chert cairn. The level platform was 2.5 m wide and was aligned north to south. A 3.5 m

Plate 2 The weathered surface of the barrow before the excavation looking east towards Seatown

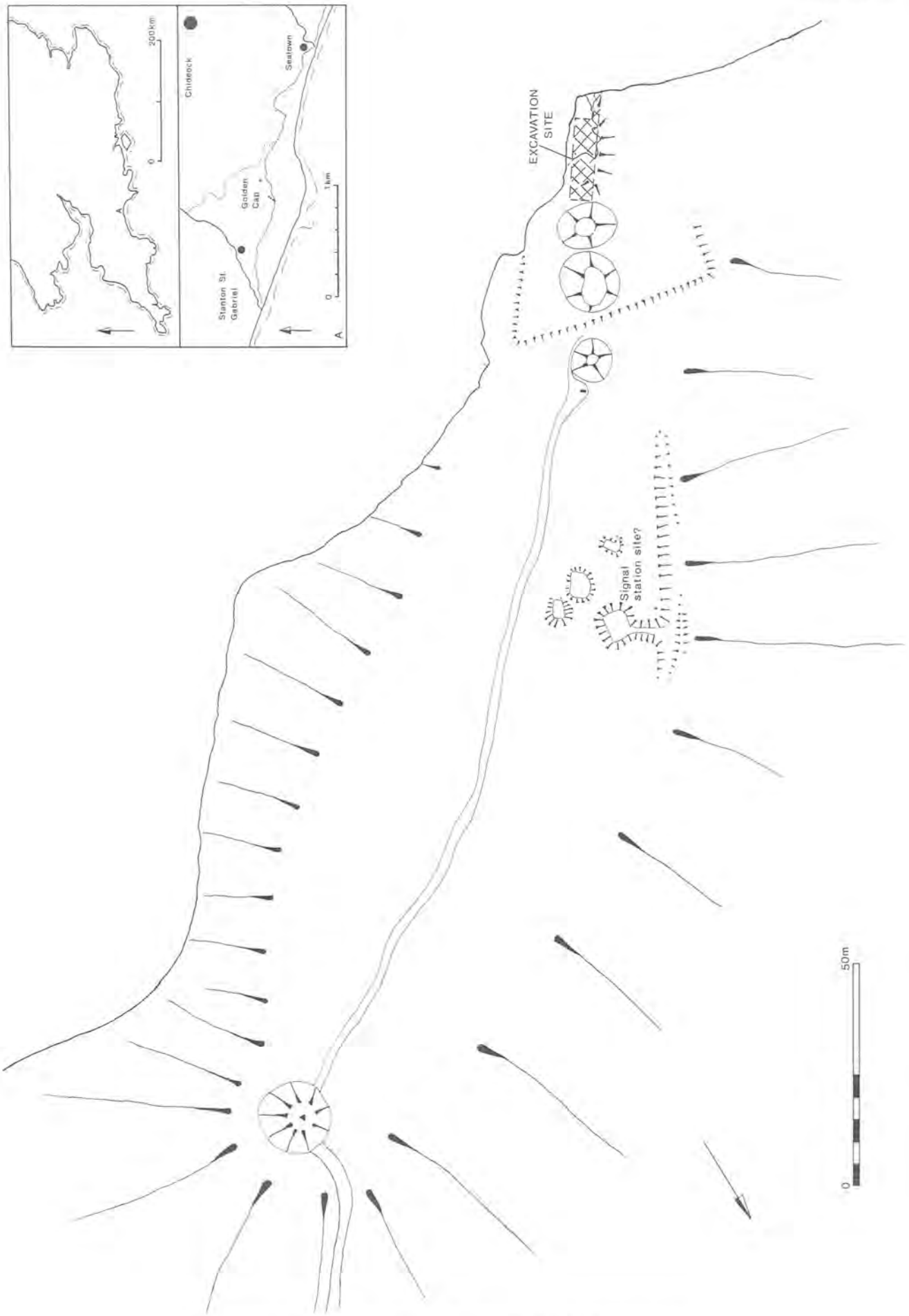

Figure 1 Location map showing the site of the Golden Cap barrow group.

length of the platform was uncovered, the north end was cut 0.5 m deep into the upper slope of the mound but the south end lay beyond the section line and may have been lost through coastal erosion. Very few brick fragments were found in the debris layers above the platform but resting on the platform itself were two discrete clusters of brick fragments and a third infilling a square post-hole (23) measuring 0.8 m long, 0.4 m wide and 0.45 m deep (Fig. 2)

On the crest of the mound was a pit (15) 2.5 m wide which could be traced for 4 m to the cliff edge. Below a thin band of chert lumps (11), the pit was filled to a depth of 0.6 m with orange sand and chert (12). A single fragment of tobacco pipe stem was recovered from this context. Below this, the pit filling consisted of numerous lumps of chert in sand. Around the edge of the pit cutting, were very numerous small fragments of chert (18) perhaps the result of burning. The layer was 0.6 m deep and continued below the level of the old land surface.

The west side of the mound (9) was relatively undisturbed although the sand had been weathered to reveal the mound surface for up to 3 m from the cliff face. The only flint tool found on the site was picked up from the surface of the mound 0.2 m from the cliff edge during the contour survey. The north section was positioned to pick up the edge of the weathered deposits. Below the windblown sand layer (5) was a band of sand with a moderate number of chert lumps (6) 0.1 m thick. This lay above a deposit containing very numerous chert lumps (7) 0.1 m thick above a dark orange brown sand with occasional small fragments of chert (8) also 0.1 m thick and lying directly over the mound itself (9).

The mound was constructed chiefly of fragments and large lumps of Upper Greensand chert ranging in size from $50mm^3$ - $500mm^3$ with large voids between them. The larger blocks were found near the centre of the barrow. Here there was little or no soil found in the interstices. Soil only survived between the stones towards the east and west edges of the mound up to 0.3 m above the old land surface level. On the east side, the soil in this context, (19.1) was a very dark brown to black sandy silt, parts of the deposit had a purple hue. On the west side of the mound the soil was a dark brown sandy silt (19.2). (19) was considered part of (9) but distinguished from it because of the presence of soil and the average smaller size of the packed chert lumps.

The chert cairn covered a layer of light grey brown-orange brown sand (21). Beneath the central 4 m of the mound was a thin band of charcoal between 2mm and 5mm thick (22). (22) is considered to be part of (21). Fragments of charcoal from (22) were collected for a radiocarbon date.

RADIOCARBON DATES

The two radiocarbon dates with calibrated age ranges from Washington University intercept method (Stuiver & Reimer 1986) using data of Pearson & Stuiver (1986) are:

RCD-1156 3730 + 60 BP 2275 to 2040 cal. BC (one sigma)
2340 to 1970 cal BC (two sigma)

Taken from charcoal found beneath the chert cairn of the barrow mound.

RCD-1157 3590 + 60 BP 2035 to 1885 cal. BC (one sigma)
2140 to 1770 cal. BC (two sigma)

Taken from charcoal found beneath the chert cairn of the barrow mound.

THE ARTEFACTS AND ENVIRONMENTAL REMAINS

Flint report
by Julian Richards

A single tool was found on the surface of the mound (9) (Fig. 3). It is a flake tool made on a partly-cortical chalk flint blank. The

Plate 3 Section through the west side of the mound layers of sand and chert (5)-(8) above the chert cairn (9) looking north-west. Hardown Hill in the background.

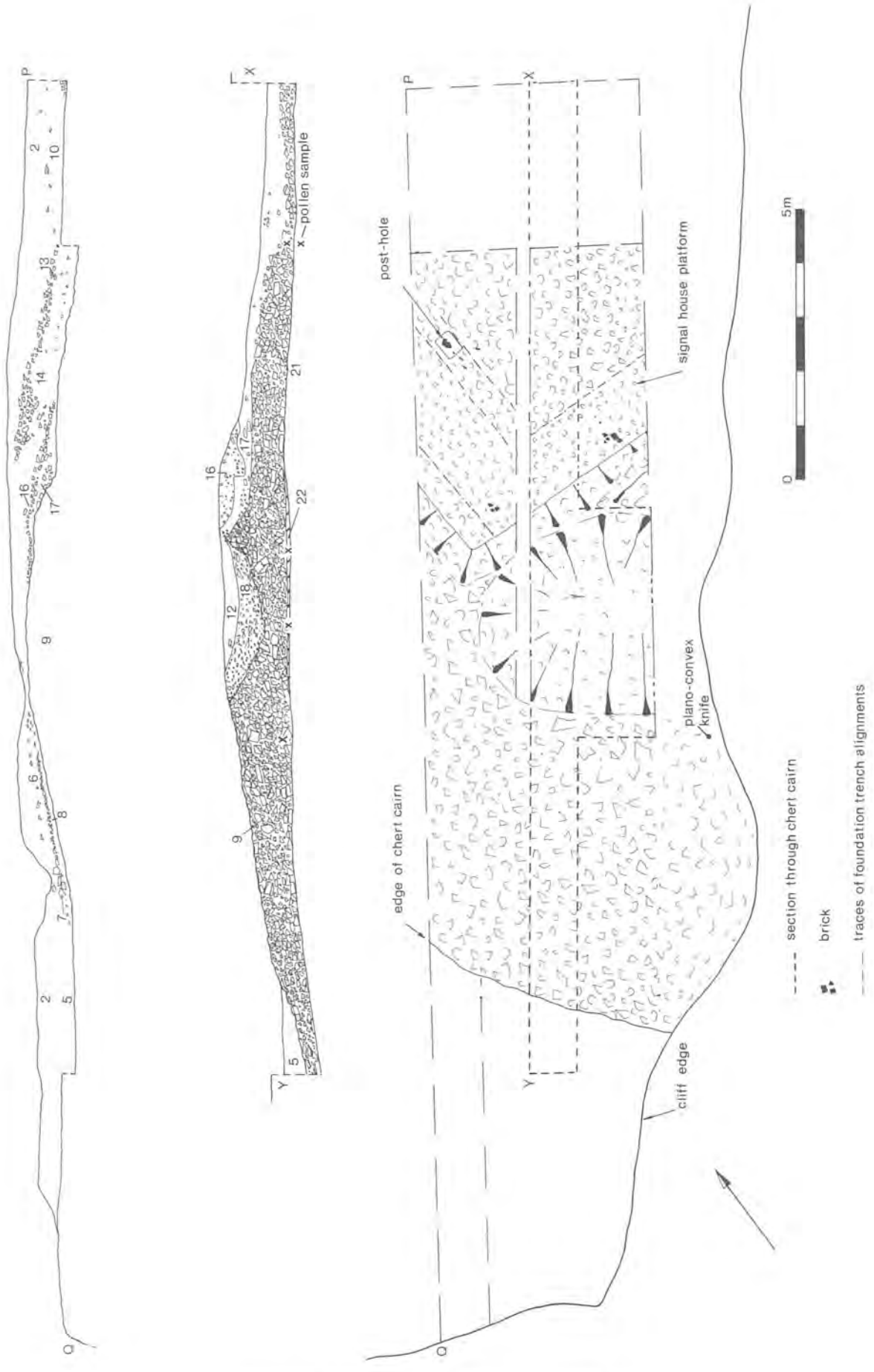

Figure 2 Plan and section drawings of the excavation

condition of the piece is fresh and it is only lightly corticated (patinated); it is 50mm long, 24mm broad and 8mm thick (maximum). The butt form considerably abraded; and the retouch is shallow to invasive extending from the mid point of each side towards and over the distal end of the flake. The retouch cuts the remaining cortex.

The tool can be classified as a plano-convex knife but is not of the classical form defined by Clark (1932) in which invasive 'scale' flaking extends over the whole of the dorsal surface. However, the retouch is sufficiently fine to place this piece within the group of plano-convex knives which appear to have Beaker associations (Smith 1965, 105; Richards 1990, Table 6).

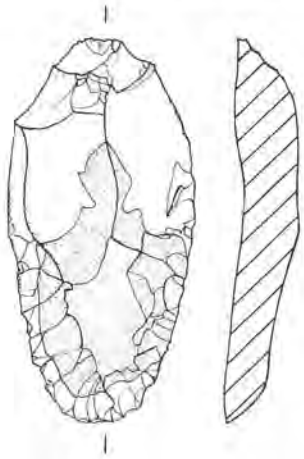

Figure 3 Flint plano-convex knife from surface of 9 at life size.

Pollen Analysis
by Rob Scaife

Introduction
Five samples taken from the old land surface underlying the mound and from the soil interstices have been examined. Pollen analysis was carried out to ascertain the vegetation environment immediately prior to the construction of the mound. Samples of the old land surface contexts (21) and (22) and the west and east sides of the mound, being highly humic (Ah) and acid, contain abundant pollen. The excellent preservation and abundance of pollen has thus allowed satisfactory pollen counts to be obtained and some indications of the vegetation characteristics of the region prior to mound construction.

Extraction and concentration of the pollen and spores was carried out in the Department of Geography, University of Southampton. Standard extraction techniques were used (Moore *et al.* 1991). Absolute pollen frequencies were ascertained using the addition of an exotic indicator (*Lycopodium* spores) to a measured volume of sample. Pollen identification and counting was carried out using an Olympus biological research microscope at x400 and x1000 with phase contrast facility. The data from these pollen counts are shown in Figure 4. The pollen sum on which the percentages calculations have been made are; pollen as a percentage of total pollen plus spores of ferns as a percentage of total pollen plus spores. A visual impression of the relative pollen values is given in Figure 4. Because the samples are essentially spatially disparate, spot samples and not part of a vertical column, this cannot be regarded as a 'normal' pollen diagram.

Results of the analysis
The spot samples analysed were taken from the humic upper soil horizon (Ah) of the old land surface underlying the Bronze Age mound (samples 3 & 4), from the soil-filled interstices in the lower make up of the west side of the barrow (sample 1) and from the soil filled interstices at the east edge of the mound (sample 2). Sample 1 is from context 19.2, sample 2 is from context 19.1 and samples 3 and 4 are from context 22. Pollen was especially abundant in samples of the old land surface and sample 2 but less so in the less organic soil filling of the stone mound to the west, sample 1. In the former, absolute pollen frequencies were calculated at between 3.75 million and 7.168 million grains per ml, and are typical of such acidic humic horizons above podzolic soils. The lower values of the mound filling (61,764 grains per ml) reflect the less humic character and different pollen assemblage present in this sample. The sample 2 was also rich in pollen with 2.333 million grains per ml. The character of these pollen assemblages is as follows:

a) The in situ *humic Ah horizon* (samples from context 22)
Dark humic organic material with sand and charcoal from the top of the old land surface under the mound (buried Ah) directly below the chert rubble cairn. The two samples although separated by 1.2 m are essentially very similar in their floristic content. Sample 22b, the western sample, does, however, have a slightly more diverse herbaceous component. Tree and shrub pollen predominate with high values of *Quercus* (oak) (to 33%) and *Corylus* type (hazel) (50-53%). The latter taxon may also include *Myrica* (sweet gale) which has similar morphology but in very well preserved cases may be distinguishable. Here, it is considered that hazel and not sweet gale is the dominant constituent on both palynological and ecological grounds. Substantial numbers of *Alnus* (alder) (13%) and *Ilex* (holly) (to 6%) are present. The latter is entomophilous i.e. insect pollinated and produces little pollen which is poorly dispersed and is thus under-represented relative to other taxa present. *Betula* (birch) is present in both samples. In these samples there is relatively little herb pollen (3-4% of total pollen) comprising Gramineae (1%) and sporadic/single occurrences of *Ranunculus* type (buttercups), Papilionaceae (clover family), *Scabiosa* (scabious), *Plantago lanceolata* (ribwort plantain) and *Dianthus* type (pinks). Spores of ferns are dominated by *Polypodium vulgare* (polypody fern) with *Pteridium aquilinum* (bracken) and monolete *Dryopteris* type.

b) The old land surface (sample 21; below east edge of chert cairn)
Sand with high humic content possibly representing the upper part of the Ea horizon of a podzolic soil. Arboreal pollen comprises 36% of the total pollen. *Alnus* (23%), *Quercus* (8.5%) and *Betula* (4%) are the principal taxa. Shrubs are dominated by *Corylus* (32%). Herb pollen is moderately diverse and characterised by Gramineae (17%), *Plantago lanceolata* (4%), *P. coronopus* (1%), *Taraxacum* type (3%) of note. As with other levels examined, spores comprise monolete *Dryopteris* type (4%), *Pteridium aquilinum* (4%) and *Polypodium vulgare* (3%)

c) East edge of mound (sample from context 19.1)
Brown sand with high organic content also containing burnt chert and charcoal. Possibly derived Ea material from the palaeosol. Pollen of herbs are dominant in this sample (57%) although representations of shrubs and trees are important (27% and 15% respectively). Trees and shrub pollen are dominated by *Quercus* (10%) and *Corylus* (30%) with *Betula* and *Alnus*. These values are substantially lower than those for the humic levels of the old land surface. In contrast, herb pollen shows much higher values of Gramineae (30%), *Plantago lanceolata* (6%), *Dianthus* type (9%), *Rumex* (4%) and Liguliflorae (Dandelions, Hawk-bits and sow thistles). Spores are similar to those of (a) but with lower abundance.

d) West side of mound (sample from context 19.2)
Brown silty sand with less organic content than other samples. The derivation of this material is problematic (see discussion below). Herb pollen values are the highest of those analysed (71%) making this sample substantially different to those of the

old land surface and the east edge of the mound. Gramineae (43%) and *Taraxacum* type Liguliflorae (18%) predominate. However, as noted above, the absolute pollen frequencies are much lower than in other samples analysed. Pollen preservation was also markedly poorer and the relatively high values of Liguliflorae are indicative of some differential preservation in favour of robust types remaining in the soil for longer periods. Arboreal pollen are few with *Quercus* (9%), and sporadic occurrences of *Betula*, *Pinus* and *Alnus*, *Corylus* (16%) values are similarly much lower than in other samples.

Discussion

Pollen analysis of soils under prehistoric structures can provide information on the vegetation and environment in the period leading up to the burial of that old land surface. Typically, samples for pollen analysis are taken from throughout the old

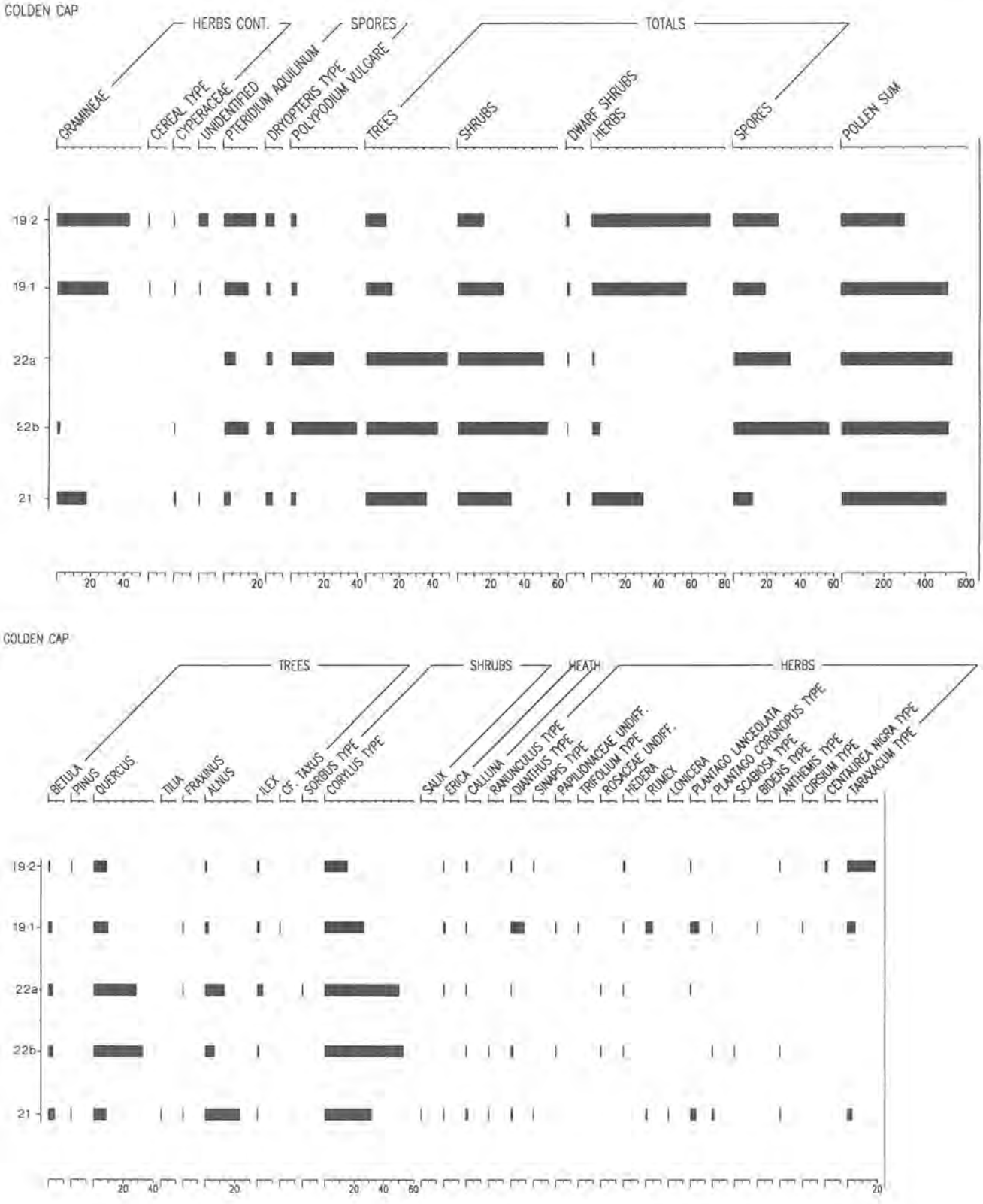

Figure 4 Pollen diagrams

land surface embracing the different soil horizons and into the structure of the mound itself; the latter in some cases provides information on the construction of the mound. Here, only samples from the top of the old land surface, the east edge of the mound make-up and the west mound make-up were taken. Samples could not be taken from the central part of the mound above samples 3 & 4 because there was little or no soil between the chert blocks which formed the mound here. Whilst it is not possible to study the temporal development of the vegetation at the site, very useful information has been extracted as the old land surface was intact and not truncated as happens in many circumstances. Here the buried Ah horizon represents organic accumulation immediately prior to construction of the mound and contained charcoal and burnt chert which is probably from archaeological activity as opposed to natural firing.

There are few data in Dorset with which to compare these results, although Dimbleby produced information from Chick's Hill, East Stoke parish (Ashbee and Dimbleby 1959), Black Down, Portesham (Dimbleby in Thompson and Ashbee 1957) and Knighton Heath, Poole (Dimbleby 1952). These analyses are typical of soil pollen analysis in showing that the environment under the barrows was one of heathland. This of course reflects the strong distribution of Bronze Age burial mounds on the sandy areas of southern England (as well as chalklands). Typical heathland vegetation has developed on acidic podsol type soils as a consequence of human activity and soil degeneration on the sandy lithologies of the Lower Cretaceous and Eocene sands. In similar analyses carried out in other areas of southern England, as for example West Heath, West Sussex (Scaife in Drewett 1985) this heathland is associated with a partly wooded environment which contained *Tilia* (lime) in abundance. At Golden Cap, the environment contrasts markedly with these other sites. As noted above, pollen is extremely abundant in the two buried soil samples. There is strong evidence of a wooded environment with few herbs or evidence of heathland. Oak woodland with an understorey and/or more open glades of hazel, holly and other shrubs is evidenced. Alder, although present, is a high pollen producer and was probably derived from its growth in damper environs of valley bottoms in the vicinity; perhaps as alder carr woodland. If this soil profile, as seems to be the case, is not truncated, the barrow appears to have been constructed in such a woodland environment. This is important evidence of the character of vegetation growing on the Upper Greensand and nearby Gault Clay vale areas. Given the alkalinity of the Upper Greensand (which is not comparable with the more extensive Lower Greensand) it is surprising that pollen has been preserved in these soils.

It seems plausible to suggest that a long history of woodland development on this high spot resulted in a well developed humic horizon which became acid through build up of polyphenols in the soil (note, for such abundance of pollen, the soil conditions must have been acid). This may have been aided by a capping? of sands of later (Quaternary) age sitting unconformably on the Upper Greensand. Comparable evidence of similar humic acid brown earths developed under woodland comes from Hengistbury Head (Scaife in Barton 1992) where woodland of oak, hazel, alder developed on Pleistocene gravels and remained until later prehistoric times.

In contrast to the above *in situ* samples are those from the interstices of the mound make-up from the east edge and west parts of the barrow. No surrounding quarry ditch for the mound was identified and the material for the mound was probably brought from an unknown quarry nearby. This source, from the pollen present, indicates an open, non-wooded area. The very high pollen values of grasses and associated taxa are representative of a pastoral area with low arboreal and shrub pollen values indicating the paucity of trees at least local to the source of these soils. Two explanations may exist for this difference in the data. Firstly, the soils are derived from an earlier period of open grassland which is represented by pollen

Plate 4 The excavated signal station platform (24) looking west with the central excavation hollow (15) in the background.

contained in the lower part of the soil profile (not sampled). Soils dug to construct the mound may have been taken from these levels. Secondly, the soils of the interstices of the mound are of later date and post-date the clearance of the woodland evidenced in the *in situ* old land surface. Given that the central part of the mound is a cairn of chert with little or no soil between the stones it is probable that the soils surviving at the edges of the mound have been washed down from above and represent the vegetation on Golden Cap following the clearance of the woodland. If the first hypothesis is true it is supported by evidence from southern England that woodland regeneration took place after early Neolithic clearances (Scaife 1988). The environment as represented by the pollen is typical of pastoral environments with high values of grasses, ribwort plantain, composites, docks, scabious, pinks/bladder campions and vetches/trefoils. Unlike other areas on sandy soils which turned to ericaceous heathland after woodland clearence the low numbers of *Calluna* (ling) and *Erica* (heaths) show that this was not the case here.

Conclusion and summary

The well preserved pollen provides, perhaps for the first time, valuable information on the character of the vegetation growing on the Upper Greensand of the Dorset coast. The sealed old land surface of Bronze Age date clearly shows that dominant oak, hazel woodland with holly existed during the Early Bronze Age prior to the date of the mound construction. Some evidence of wetland exists with alder, which may have been growing in the wetter valley bottoms in the vicinity. The mound was apparently constructed in this woodland environment or immediately after a major clearance episode not represented in the *in situ* soils. The samples taken from the mound/cairn make-up differ markedly and show the existence of an open pastoral/grassland community. It is likely that widespread woodland clearance occurred around the time of barrow construction because the position of this linear group of four barrows on a ridge crest indicates, as is common with Bronze Age burial mounds, that these monuments were built to be seen from a distance. Woodland clearance here in the Early Bronze Age would be in accord with evidence found elsewhere in Dorset (Dimbleby in Thompson and Ashbee 1957).

Present vegetation

by George Elliott

Plant species recorded on Golden Cap in 1993 are listed here as a contrast to species identified during pollen analysis of the soil samples from the barrow mound excavation.

Hawthorn, holly, european gorse, dwarf gorse, blackberry, heather, ling, bristle leaved bent, dog violets, self-heal, silverweed, tormentil, heath milkwort, creeping thistle, yorkshire fog, knapweed, groundsel, goatsbeard, daisy, bluebell, sweet vernal grass, perennial rye grass, lesser stitchwort, sphagnum, foxglove, dandelions, wild strawberry, yarrow, sea plantain, sea campion, thrift, brome, lesser spearwort.

The vegetation cover on the summit of Golden Cap is rough grassland grazed in the winter by cattle with clumps of gorse, bracken and blackberry and occasional hawthorn bushes.

An earlier impression of the vegetation cover here is recorded in the Stanton St Gabriel tithe apportionment of 1840 (DRO T/SG). The land at Golden Cup was pasture at this time.

GOLDEN CAP COASTAL SIGNAL STATION

by Alfred Cooksey

The high coastal position of Golden Cap made it a good location for a signal station. It is likely that this position had been used for relaying messages for centuries before the Napoleonic signal station was built.

The position of beacons along the Dorset coast is shown on a map of 1539 (DRO 196). The map shows beacon towers as a drum-shaped fuel container set on a high post with a braced cross timber forming the base. Each beacon tower is shown with the fuel alight in the drum and a ladder leading up to it. There are four beacons shown along the coast between Lyme and Bridport, and the Golden Cap beacon is thought to be the third beacon to the right of Bridport.

The next reference to Golden Cap is found in (PRO WO 30/116), Isaac Taylor's survey of Dorset 1796:

> 'No. 6 Report on the Coast of Dorsetshire. From Lyme Regis to Bridport the cliffs are for the most part steep, rocky, and improper for the disembarkation of a considerable force, yet boats may land in several places... A single Nine Pounder and a small watch house, in which some ammunition can be stored, at each of the three following places, would completely secure that part of the coast...near a point East of Charmouth, near the foot of Giden Cup Hill and a little to the East of Seatown...'

From 1793-1815, Britain was at war with France, except for the short interlude of the Peace of Amiens (1802). The naval activities of both countries in the English Channel demanded a more positive method of communication between men of war at sea and observers on the coast. If those on the shore could be ordered to move into position to engage the enemy, a more efficient deployment of our channel defences could be effected.

To this end a system of coastal signal stations was set up in 1798 called the SEA FENCIBLES; this force was complimentary to the army raised in Dorset, namely the Dorset Volunteers Rangers.

Details of the mustering of the Sea Fencibles can be found by reference to documents in the Dorset Record Office and the Public Record Office at Kew, from which the following picture of the system has been compiled.

The final number of stations in the system, which stretched from Lands End to Scotland and across to Ireland, was 262 stations (PRO ADM1).

A contemporary report, (PRO ADM 17/98), 'Accounts, Signal Stations, 1803-5', gives the purpose of the system as 'conveying...to the commanding officers at ports to H.M. Ships on the coast, information of such of the enemy's ships as may be discovered for any of the said stations'.

This document goes on to give details of the staffing of each station, as follows:-

> 'Compliment 1 Lieutenant, 1 Petty Officer, and two men' Their pay is given as 'Lieutenant 5s per day plus 3s subsistence, P.O.s and Midshipmen 3s per day plus 2s subsistence, Men 2s per day'.

A sum of £30 was the initial allowance at the setting up of the station. In the same document, a list of stores is also given as follows:

Account of stores necessary to be furnished for each signal station.

Signal House complete	one
Canvas for covering roof of house	163 yards
Scupper Nails	20 pounds
All Topmasts 50ft long fitted with Cap, Crosstrees and Fidd to secure the Flag Staff	one
Flag Staff 30ft long fitted with a Truck with two sheeves, Yard 30ft long, 5" diameter at one end, the other 3", with an Eye Bolt and a Hoop at each end	one
Red Flag 18 breadths 7 yards	one
Pendant Blue 18 breadths 7 yards	one
Balls of 3ft 4ins diameter made with hoops covered canvas and painted black with an eye bolt each end	four
Rope of 1½ inch	100 fathoms
Rope of 2½ inch	77 fathoms
Small Block 6 inches diameter for the balls	four
Iron Bound Block of 9 inch	two
Large Wood Cleats, with nails	six
Small Wood Cleats, with nails	two
Bath Stove for officers room	one
Grate for mens room	one
Fire Irons and Tender to each room	one sett
Ash Chairs three to each room	six
Deal Tables one to each room	two

From this list it can be seen that the signal station consisted of a two roomed wooden building, with a canvas roof, containing heating, tables and chairs for the officers and men. The signalling apparatus consisted of a flagstaff and cross pieces on which were raised and lowered, using ropes and pulleys, four hooped black canvas balls and two flags, one red and one blue.

A later document (PRO ADM 49/17) entitled 'Instructions to Lieutenants Superintending Signals', dated 1807 gives further details of the financing and running of the Sea Fencible Signal Stations.

ARTICLE III	9d a mile for travelling to the station will be allowed.
ARTICLE IV	Six Chaldrons of coals of 36 Bushels each, London Measure. £4. 10s. 0d. for candles £1. 0s. 0d. for Stationary per annum allowed.
ARTICLE XIII	To enable you to comply (in part) with your instructions relative to night signals, you will purchase... such quantities of Furze, Faggots or Tar Barrels as may be necessary for the making of fires, piling the former in a stack with a narrow ridge at the top and thatching them over.

This later document reduces the midshipman's pay and also reveals that beacons were ready to be used beside the signal stations.

The officers at the signal stations had been recalled to active service to man the stations. Before serving at a signal station, an officer had to make an oath that he had not been employed in any branch of His Majesty's naval forces or signalling service, during the present war, and that he was on half pay when he received notice of his present appointment.

The Dorset Division stations were set up by Captain Nick Ingram in 1798. An account book (PRO ADM28/64) gives many details concerning this initial work. The first page has the following heading.

> 'An account of receipts and disbursements for the raising of a corps of men on the coast of Dorset to be called Sea Fencibles. Under the direction of Captain Nick Ingram from 7th April to 4th May 1798'.

This account book, an exercise book type, has details of stores and signalling apparatus to be delivered to the various Dorset stations. In July 1798 there is an entry for the 'Freightage from Portsmouth of Signal Balls, Ensigns, Signal Masts and Rigging'. In September 1798, Golden Cap is mentioned when 'Hand Pikes, a Spy Glass and a Flag' for the signal station are recorded. This entry shows that Golden Cap was set up as part of the Dorset Division in 1798. Other documents show that it was later included in the Devon Division.

The later extent of the preparations against invasion in Dorset, both on the coast and inland, can be seen on an 1804 map of the defences, (DRO M6). The position of 'Golden Cup' is clearly indicated by a flag symbol.

In addition to pay and material costs of the Sea Fencibles there is also the cost of the ground rent for the stations themselves. Many of the Landed Gentry did not charge for the use of their land, but a charge was made at Golden Cap.

> 'Signal Stations and Telegraphs, An account of the tenure of the ground occupied by them 1814 (PRO ADM 49/116)
> Lt John Twisden Golden Cap £5 Mr Roper'

The total running cost for Golden Cap in 1813 under the command of Lt Twisden was £325. 19s. 8d. (PRO ADM 17/104). Lt Twisden had been in command of Golden Cap since at least 1803 (PRO ADM 6/55) when all the officers for signal stations were listed. Twisden's immediate superior was Captain James Carpenter who was in command of all the signal stations from Puncknowle to Teignmouth.

So far no log book for Golden Cap signal station has been located. Such a document would give an insight into the day to day running of the station and the type of messages received and sent. Time has not allowed a more exhaustive study of the records at Kew and the log books may survive there amongst the many hundreds of documents.

An example of the types of messages sent by the signal posts is quoted by Henry Symonds (1920, 22) from the Western Flying Post in April 1799.

> 'Monday evening about ten o'clock an express arrived from a neighbouring signal house to the commanding officer at Bridport, stating that the enemy was actually landing in the west, but their numbers and situation could not be ascertained before the morning. The drums immediately beat to arms ; the three companies of Bridport Volunteers assembled with surprising alacrity, and remained steadily under arms during the whole night, anxious to march to wherever their services might be required. Two troops of the Somerset Provisional Cavalry, commanded by Major Rodber, displayed great zeal on the occasion; Captain Traver's troop of Dorset Yeomanry assembled from all quarters with the greatest expedition; Captain Prater and the neighbouring companies were also in a state of preparation. The loyalty of each corps cannot be too much applauded, and the anxiety to meet the enemy could not be exceeded by any regular troops. About seven in the morning intelligence was received that a mistake had been made at the signal house'.

Two other false alarms from signal stations are recorded in the diary of James Frampton commander of the Dorset Corps of Yeomanry (DCRO D29/X3). One in February 1798 stated that French transports had been seen off Start Point. Another in May 1804 stated that an invasion had begun at Portland. On this occasion there was a dense fog and forces were mobilised and beacons lit but when the Yeomanry arrived at Weymouth it became clear that another mistake had been made.

Skelly (1988, 660) indicates that Golden Cap was still used as a signal station following the Napoleonic war:

'When the Peace of Paris was signed in 1814 and the coastal stations were closed down there was a sudden cessation of shipping intelligence from the Channel. Realising how useful this information had been the Admiralty reopened some of the stations and at the same time despatched Thomas Goddard to re-site all the stations from Lands End to North Foreland...' Each station had to have a solidly constructed brick station house. A report made in 1814 regarding the cost of building the houses at these stations showed that the wooden houses cost £130. 5s. 3d. and the houses made of brick cost £370. 14s. 0½d (PRO ADM 106/3133).

One other feature of this new line along the coast was that the system of signalling was by the use of a two-armed semaphore invented by Admiral Sir Home Riggs Popham. Goddard completed a line of 113 signal station and, of these, there were nineteen on the Dorset coast.

Skelly includes Golden Cap in the list of brick signal stations and the earthworks recorded 100 m east of the site excavated in 1992 (Fig. 1) may be the new site of the signal station constructed after 1814. The date of the abandonment of this site is unknown.

On a series of 19th century maps of Dorset a signal station is shown at Golden Cap as late as 1861 (DRO Murray's map). The first detailed O.S. map of the area dated 1891 (Sheet XXXVII S.E.) shows no buildings here.

THE POST-MEDIEVAL POTTERY

by Jo Draper

There is *c.* 1.8kg. of post-medieval pottery from the site, 1kg of it from the single layer (10). Most of the sherds are small. A full list and quantification of this pottery can be found in the archive.

Coarsewares Apart from the unusual and distinctive mug (Fig.5) the local coarsewares are mostly small sherds. A pancheon and some small bowls are the only other identifiable forms. By weight 40% has simple slip decoration. In the largest group (10) earthenwares formed half the group by weight, but far smaller proportion in number of vessels.

One sherd of Staffordshire/Bristol slipware came from layer (10).

Stonewares

Only two stoneware vessels were present. One was unusual, having an intricate moulding and blue areas, and the other a fine Nottingham stoneware bowl.

Plain creamware
The bases of two large bowls and two upright tankards were identified, but most sherds were too small to fit to vessels. In the largest group (10) plain creamware formed 20% by weight.

Blue decorated pearlwares
At least four tea bowls and one larger bowl printed with Chinese style patterns on pearlware were found in the largest group (10) which included 10% blue decorated pearlware. More were present in other layers. Three more tea bowls had blue painted decoration. All groups contained fragments of the common feather edged pearlware plates with blue on the edge, and there were also green edged examples.

Other pearlware
Simply painted polychrome pearlware was also present, mostly teabowls. One larger bowl with distinctive brown and black lines and yellow and blue mottling was found in layers 10, 14 & 16. One well-decorated coffee can and most of the square base from a small pearlware figure was found in layer (10).

Other finewares
One sherd of porcelain, a blue printed Chinese patterned larger bowl, was found in layer (14). Single sherds of plain basaltes, fine red earthenware, fine red earthenware with white slip inside and fine earthenware with a brown manganese glaze were recovered.

The illustrated mug
The neck of a mug or tankard, with distinctive indented body. Fine red local earthenware, glazed overall, except the handle, a dullish olive to pale orange. White slip lines under the rim, mostly now 'ghost' where the slip has fallen off. An unusual vessel, not paralleled at Donyatt kilns, and illustrated here because it can be so closely dated (Fig. 5).

Discussion
The range of wares present is what would be expected for the date of the Napoleonic signal station 1798-1814. There is a smaller proportion of local earthenwares than would be found in earlier groups, quantities of plain white creamware and decorated (mostly blue) pearlware. The other finewares and the single piece porcelain are also predictable.

The only comparable published group from Dorset is pit 644 from Greyhound Yard, Dorchester (Draper 1993, 308-310), which also contained quantities of plain creamware and decorated pearlware. Teawares were common forms, as they are here. The Dorchester group contained much greater proportions of its vessels, but there was a still lower percentage of local earthenwares present, only 33%, by weight, compared with 50%, by weight, at Golden Cap. This suggests that the Golden Cap group is not, as one might have thought, overweighted with finewares. Golden Cap has many more slip-decorated earthenwares than Dorchester, but this merely reflects its geographical position, with more of its coarsewares coming from Donyatt kilns (which decorated) whereas Dorchester was supplied by Verwood (which did not).

THE POST-MEDIEVAL GLASS

by Jo Draper

Sherds of dark green glass were found in all contexts with post-medieval pottery. Window and bottle glass was present. From layer (10) part of the top of a dark green bottle as Noel Hume (1961) type 21, late 18th century.

DISCUSSION

The radiocarbon date from the charcoal beneath the mound indicates that it was constructed between 2,100-1,900 B.C. This confirms the hypothesis that the mounds at Golden Cap are Bronze Age round barrows.

Figure 5 Neck of a mug or tankard from layer 10 at 1/4 life size.

The excavated site is part of a linear group of earthworks located on a ridge top. Such a location would be characteristic of a barrow cemetery. Although no funerary objects or bone fragments were found during the excavation, the concentration of charcoal on the old surface, below the central area of the chert cairn, may be associated with a pyre. The excavations at the Simons Ground barrow cemetery also found charcoal on a buried land surface. The charcoal concentration beneath barrow B was associated with stake holes and the deposit was interpreted as the remains of a burnt mortuary house (White 1982, 7).

Only a small percentage of the Golden Cap barrow was excavated and evidence for burials/mortuary structures may remain in the surviving portion of the mound. The plano-convex knife, although found on the surface of the mound, may have been part of a burial deposit. Chalk flint was a rare commodity here and would need to be brought 12km from the nearest outcrop to the east.

Considered in relation to the Bronze Age barrow distribution in Dorset, the Golden Cap group is a western outlier. The nearest barrow groups are 2 km to the north on Hardown Hill. Here there are five barrows which, despite the presence of pagan Saxon material, probably have Bronze Age origins. On High Bullen, an eastern spur of Hardown, a further three mounds have been recorded (Bowen 1968, 240)

To the east, the nearest neighbours to the Golden Cap barrows lie 3km along the coast on the ridge of Thorncombe Beacon. Within Dorset, no barrow mounds have been identified, west of Golden Cap. In East Devon, between Lyme Regis and the River Axe, there is a low incidence of recorded barrow mounds but west of the Axe, barrow density increases considerably with groups south of Honiton at Grittisham Hill, Farway Hill and Broad Down.

If the distribution of barrow mounds is an indicator of the concentration of settlement in Early Bronze Age Dorset, then the evidence would indicate that the area west of Bridport was a thinly populated part of the county. The chalklands 12km to the east contain many hundreds of barrows centred on the South Dorset Ridgeway. This concentration stops abruptly at places like Eggardon, Chilcombe and Puncknowle (Greenfield 1984, 63) along the western edge of the chalk escarpment.

The density of archaeological sites, together with pollen and mollusc analysis of Bronze Age buried soils on the chalk and heathlands of Dorset, indicate that large tracts of land had already been cleared of primary woodland by the end of the Neolithic period. Wooodward (1991, 140) relates barrow incidence with woodland clearance on the South Dorset Ridgeway and mollusc studies for Cranborne Chase (Entwistle and Bowden 1991, 41), the Badbury Rings area (Wainwright 1992, 62) and the South Dorset Ridgeway (Bell 1991, 117) all indicate open agricultural landscapes on the chalk by the Early Bronze Age.

Studies of heathland in eastern Dorset indicate that here too, the land was largely cleared of trees during the Neolithic period and continued to be used for agriculture during the Early Bronze Age (Allen and Scaife 1991, 218).

The pollen grains and spores within the soil samples beneath the mound at Golden Cap are particularly valuable because the radiocarbon date from the charcoal provides an Early Bronze Age date. The vegetation growing on the site, until a short time before the construction of the mound, was predominantly woodland dominated by oak with holly, hazel and other shrubs. Although earlier human (Neolithic) interference may have occurred it appears that the area of Golden Cap had either remained wooded or that secondary woodland had regenerated in this region. The importance of woodland at this relatively late date may indicate that this area had a low population density in comparison to the chalkland to the east. Continued Bronze Age activity opened up the environment and resulted in a grassland pastoral habitat.

Clearly, in the absence of any local comparable data, the samples taken here are isolated. However, they do provide a basis for further work as they have shown that buried soils in the locality, derived from the Upper Greensand, can provide well preserved pollen samples.

There may have been further barrows on Golden Cap which have been lost through cliff erosion. Four thousand years ago this

barrow group would have been at least a kilometre inland and the main settlements for the area could have been the Bronze Age coastal equivalents of Seatown and St Gabriels, sited at the river mouths to take advantage of fishing and trade routes along the coast.

In contrast to the Bronze Age aspect of the site, the remains of the Napoleonic signal station can be reconstructed with a degree of certainty based on historical records. Further research in the Public Record Office may provide details concerning the messages relayed along the Dorset coast by the officers and men watching for the French invasion fleet between 1798-1814.

The Napoleonic signal station was built on a level chert platform cut out of the east side of the barrow mound. It was probably a wooden structure built on brick footings.

The close date range for the pottery indicates that the signal station was demolished soon after 1814 when the Sea Fencibles were decommissioned. The layers of sand and chert rubble deposited against the barrow mound indicate that the signal platform was deliberately buried at this time.

The date of the excavation, cut through the centre of the barrow, is not known. A post-medieval date for the upper filling of the feature is indicated by a fragment of tobacco pipe stem found within it. The lower filling contained numerous small fragments of chert, probably shattered by fire. Three possibilities arise from this limited evidence. The excavation may have been the result of an unrecorded antiquarian excavation, although this would not explain the evidence for burning. It may have been a beacon site, although placing a beacon in a fire pit seems unlikely, it would probably have been raised above the ground on a post, as is shown on the 1539 map (DRO 196). The third and most likely explanation is that it was an excavation to anchor the base of the signal mast sited beside the signal house on the top of the barrow mound.

A new signal station was constructed after 1814, probably at the site of the earthworks 100 m to the north-east. Map evidence indicates that it was in use up to the 1860s although it had been demolished by the end of the 19th century.

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An Early Iron Age Hilltop Settlement At Heron Grove, Sturminster Marshall, Dorset: First Excavation Report

JOHN VALENTIN
AC *archaeology*
with contributions by Jacqueline Dodd and Julian Richards

SUMMARY

Excavations prior to gravel extraction adjacent to Henbury pit, Sturminster Marshall, Dorset revealed the presence of two circular post-built structures, with associated deposits including pits and a pottery lined hearth, all dating to the early Iron Age. The area investigated comprised part of a hilltop settlement overlooking the Stour valley. Middle Bronze Age funerary deposits are known to exist immediately to the south of the excavated area. Pottery recovered from excavated deposits suggests a date for the occupation of the settlement within the period c. 800-450BC.

INTRODUCTION

Three areas of proposed gravel extraction adjacent to Henbury pit, Sturminster Marshall were investigated prior to commencement of gravel working (Fig. 1, A, B and C). Areas B and C were located on the hilltop known as Heron Grove. Each area was approximately 3 ha in extent. Area A (around SY 9605 9700), of which 1.5% was sampled by mechanically excavated transects, contained no evidence of archaeological activity (Cox 1992a). The preliminary evaluation of Area B comprised the excavation of a 1.9 % sample of the available area. A number of subsoil features was located in a restricted area of c. 0.10 ha, dating to the early Iron Age (Cox 1992b). A similar proportion of Area C was examined and revealed a large number of subsoil features comprising pits, ditches and spreads of occupation material dating from the early Iron Age. This appeared to represent the southern end of an area of prehistoric occupation on the hilltop, known to extend into Area B. Deposits of Middle Bronze Age date were also recorded in Area C; these represent part of a funerary complex, consisting of at least one ring ditch and a single associated cremation urn (Valentin & Dodd 1993).

This report presents the results of the excavation of Area B. Further work is anticipated across the southern part of the site (Area C) in due course.

SITE DESCRIPTION

Heron Grove occupies part of a hilltop, around 80m OD, in a prominent position overlooking the Stour valley. The site is located in the northern area of the hilltop, on the south east side of the spine of the ridge, centred on NGR SY 95759777. It lies on plateau gravel, on the fringe of the Hampshire Basin complex of tertiary and later superficial deposits. The area was formerly covered with dense rhododendron scrub and mixed woodland, which was cleared at the time of the excavation, prior to gravel extraction. The top of the hill slopes gently down to the east

Plate 1. Heron Grove - general view of the site, looking east. Structure 2 is in the foreground.

between 82 and 75m OD, with steep slopes off the hill on the west, north and east.

The excavation revealed that a well developed (and worm sorted) humic topsoil of approximately 0.40m had developed over much of the hilltop. The soil was a dark grey-brown silty loam of c. 0.30m with a well-defined lower horizon 0.10m deep, of small to medium flint gravel. The nature of the topsoil meant the upper levels of many features were difficult to define.

Historical and Archaeological Background

The place-name Henbury, first referred to in 1244, is thought to mean 'the high or chief fortified place' (Mills 1980). The site is shown as part of a single large (154 acres) land parcel on the 1844 Tithe Map and described in the Tithe apportionment as *Crumpets rough ground*, the land use at the time described as furze. Evidence for former quarrying in the area is present towards the north east of the site, where a single linear quarry pit

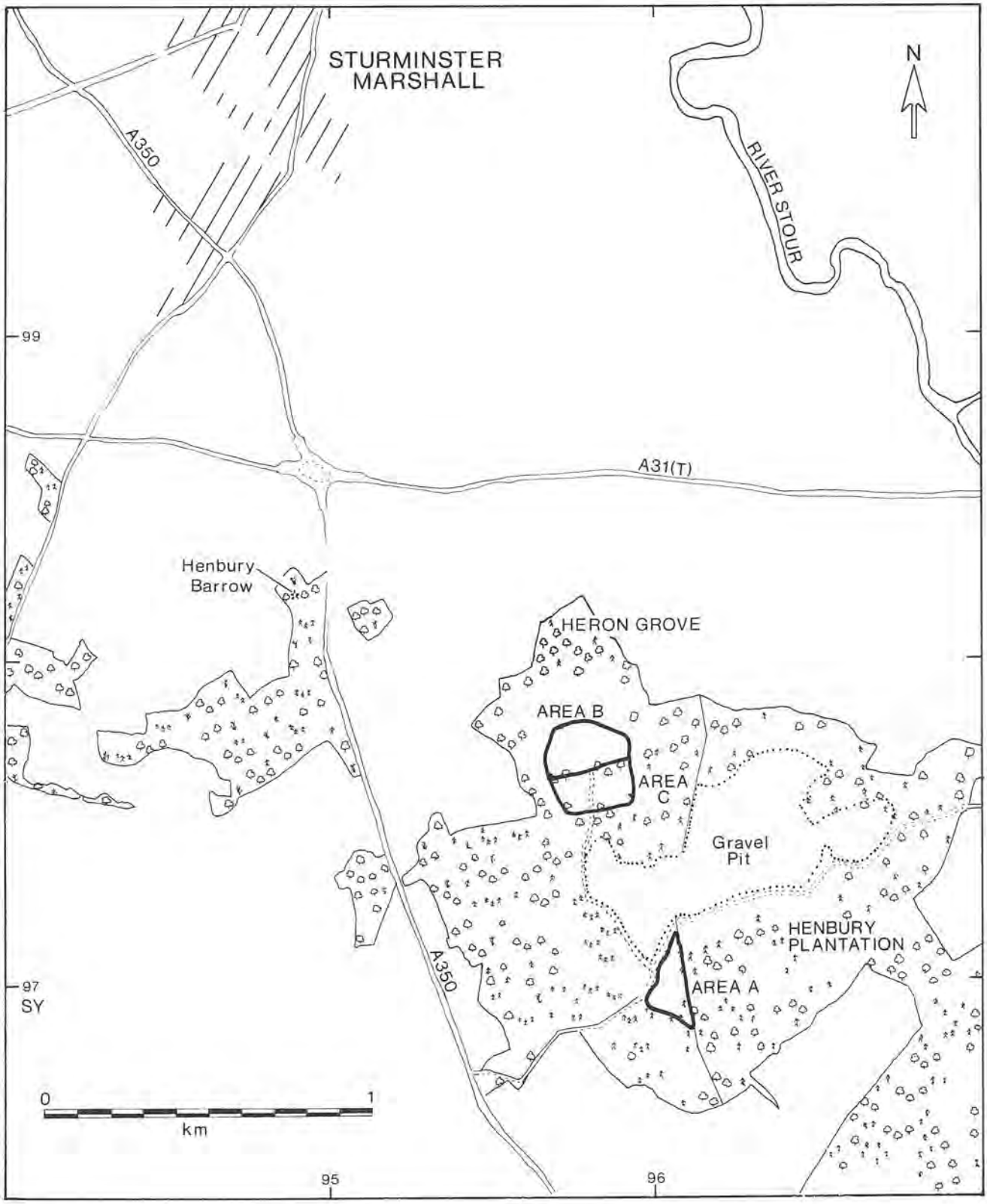

Figure 1 Heron Grove; Site location plan

is present. Other localised depressions on the east side of the hill are likely to be as a result of this activity. No quarries are shown on the Tithe map, but Crumpets is considered to be a corruption of crooked pit and describes the presence of gravel pits (Mills 1980). The area is shown as woodland by 1902 (second edition Ordnance Survey 25" map). There is no evidence for the area having been ploughed.

Little was known of the site's archaeological potential prior to this programme of investigation. However, there have been a number of finds of prehistoric date made within 500m of the site, including flint artefacts at the base of the hill to the west (Barnes and Cox 1987), and the site lies within an area of high archaeological interest. It is in a commanding position overlooking the Stour valley, with Badbury Rings hillfort clearly visible to the north. There are earthworks and sites of all periods nearby, including 2km to the north, a recently excavated, important Iron Age settlement site at Sweet Briar Drove (Maynard in prep.). The nearest recorded funerary monument is Henbury Barrow, on the next ridge-top, 1km to the north west (RCHM 1970 Lytchett Matravers 37).

Excavation Methodology

An area of approximately 1000m^2 was cleared of topsoil using a tracked 360° excavator with a toothless bucket to a depth of around 0.40m, where archaeological features and deposits became visible. The site was then carefully cleaned by hoeing and shovel clearance to enable edges of features and deposits to become more clearly defined. These were then planned at a scale of 1:50 using a 10 m site grid.

All features were initially sampled by half-sectioning, followed by full excavation of the major deposits. All records were made using the AC *archaeology* recording system comprising written, graphic and photographic records. The site archive will be deposited with Dorset County Museum under the site reference AC104.

THE EXCAVATION

A plan of all features recorded is shown on Fig. 2. Most of the features on the site were characteristic of domestic occupation, with the following categories identified : post-pits, post/stake-holes, pits and hearths. Other features were also present; these included a probable post-Medieval ditch, as well as irregular features, some thought to have been formed as a result of tree removal.

Nature of Archaeological Features

Following the removal of topsoil, three main areas of activity were identified; these can be seen on Fig. 2 as groups I, II and III. Only ceramic material of early Iron Age date was recovered from the site. No chronological phasing is distinguishable between the excavated feature groups.

The post-holes

A total of 56 features characteristic of post/stake-holes were identified on the site. These features were generally small and either circular or sub-circular in plan. Depth of features varied between 0.05 and 0.45m. There was a fairly even distribution of post-holes in the three groups on the site; 17 were located in group I, 22 in group II and 17 in group III. Approximately 50% of post-holes in each group contained pottery.

A number of the post-holes in Group I probably formed a circular structure, shown on Fig. 3A as Structure 1. The largest post-hole was 440 which had a diameter of 0.61m and depth of 0.38m, with the smallest being 399 with a diameter of 0.25m and depth of 0.08m. The average diameter was 0.37m, with the average depth being 0.31m. Most of the post-holes in this group had steep sloping sides and either a concave or flat base. The fills of these post-holes contained varying quantities of humic sand and silt, with most containing unworked gravel flint fragments. Some contained pottery fragments, burnt flint, burnt sandstone, charcoal and gravel.

The post-holes in group II were generally characterised by a profile of steep sloping sides onto a sub-rounded or even base. Most were circular in plan, with a few exceptions being either sub-circular or oval. The

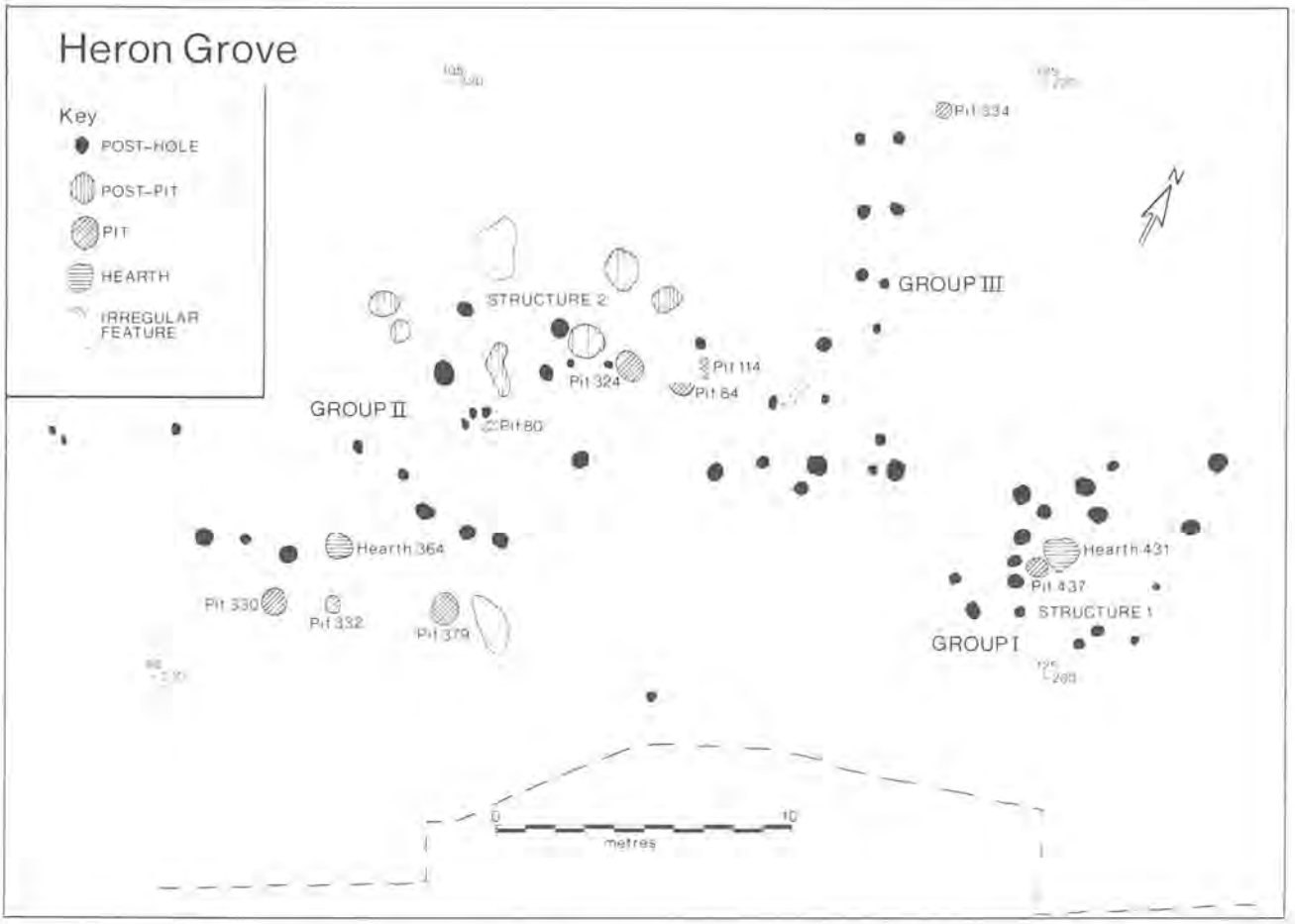

Figure 2 Plan of all features, Area B

largest post-hole was 366 which had dimensions of 0.85 x 0.55m and depth of 0.29m, with the smallest being 318 with a diameter of 0.15m and depth of 0.12m. The fills contained varying quantities of humic sand and silt with the inclusions consistently showing unworked gravel flint fragments of varying dimensions, as well as some containing burnt sandstone fragments, charcoal and burnt flint.

Post-holes of particular note include 366, which was an oval-shaped feature with steep sides that contained packing material, consisting of large flint fragments and nodules, bonded by a yellowish-white ground chalk and clay matrix. Post-holes 320 and 352 also contained large packing stones. Post-hole 316 contained blackened sand, as well as a large quantity of charcoal at the base of the feature, possibly indicative of a post burnt *in situ*.

All the post-holes in Group III were of similar shape and size. They were all circular in plan with diameters varying between 0.15 and 0.60m with an average of 0.36m. The depth of post-holes varied between 0.08 and 0.33m, with an average of 0.20m. The profiles in this group generally showed relatively steep sloping sides onto either a flat or slightly rounded base. The fills of the post-holes again contained varying quantities of humic sand and silt, with most containing unworked flint fragments, as well as some containing burnt flint, burnt sandstone, charcoal and gravel.

Post-holes in this group which had distinctive characteristics include 393 which contained large packing stones, as well as a yellowish-white chalky clay bonding, similar to 366 in group II. Post-hole 336 contained a substantial amount of burnt material, including charcoal, burnt flint and burnt sandstone, as well as containing flint packing stones. Two post-holes were also located in this group during the evaluation stage, but were not excavated.

The post-pits

There were six post-pits excavated on the site, all of which were located in Group II and all contained pottery. The characteristics of post-pits comprised their tendency to be oval or sub-circular in plan and generally had larger dimensions, with the average for all post-pits being 1.17 x 0.82 and all contained a circular or sub-circular post-pipe at the base of each pit. The profiles generally showed steep sides and a flat, even base. The fills of the post-pits contained variable amounts of humic silt and sand within them, with the coarse inclusions generally being composed of flint fragments of varying dimensions, with some containing charcoal, angular and sub-angular gravel and rare fragments of burnt sandstone.

Post-pits 304 and 322 both contained two post-pipes, but with very different profiles. Post-pit 304 was irregularly shaped with a post-pipe at its northern and southern end, whereas 322 was sub-circular in plan with a post-pipe at its western and eastern ends. It is possible that the shape of 304 has been influenced by recent tree removal, with possibly two post-holes or post-pits joined together during this activity.

The pits

A total of eight pits and one possible pit were located on the site : 80, 84, 114, 324, 330, 332, 379, 437 and 334, the first three being found during the preliminary evaluation. With the exception of pit 334, all contained pottery. Characteristically the pits, with some notable exceptions, tended to be larger features with generally greater depths than post-holes, but showed no evidence for post-built structures; and secondly, that they generally contained a greater amount of occupation material. All pits were either circular or oval in plan with variable dimensions, the largest being 324 which had a diameter of 1.00m and depth of 0.65m and the smallest being 80, which had dimensions of 0.40 x 0.20m and depth of 0.17m. The profiles of most pits were generally steep-sided and most had a regular, either flat or rounded base.

The textures of the soil fills of the pits were dependant on the variable amounts of humic sand and silt present, although some such as 80 and 324, had a noticeably higher clay content. The coarse inclusions in most pits were variable, although nearly all contained fragmented burnt sandstone. Other inclusions regularly occurring were burnt flint, flint nodules and fragments, charcoal and gravel.

Six of the pits on the site were located in Group II. Two significant pits were 80 and 332; both of which were oval in plan and each contained a single, crushed pottery vessel against the edge of the pit. No other features of this type were found during excavations of Area B. Pits 324 and 379 were large circular pits with a diameter of around 1.00m, with the fills containing a large quantity of pottery.

There does not appear to be any general distribution patterns between pits, but they all seem to be located within dense concentrations of features.

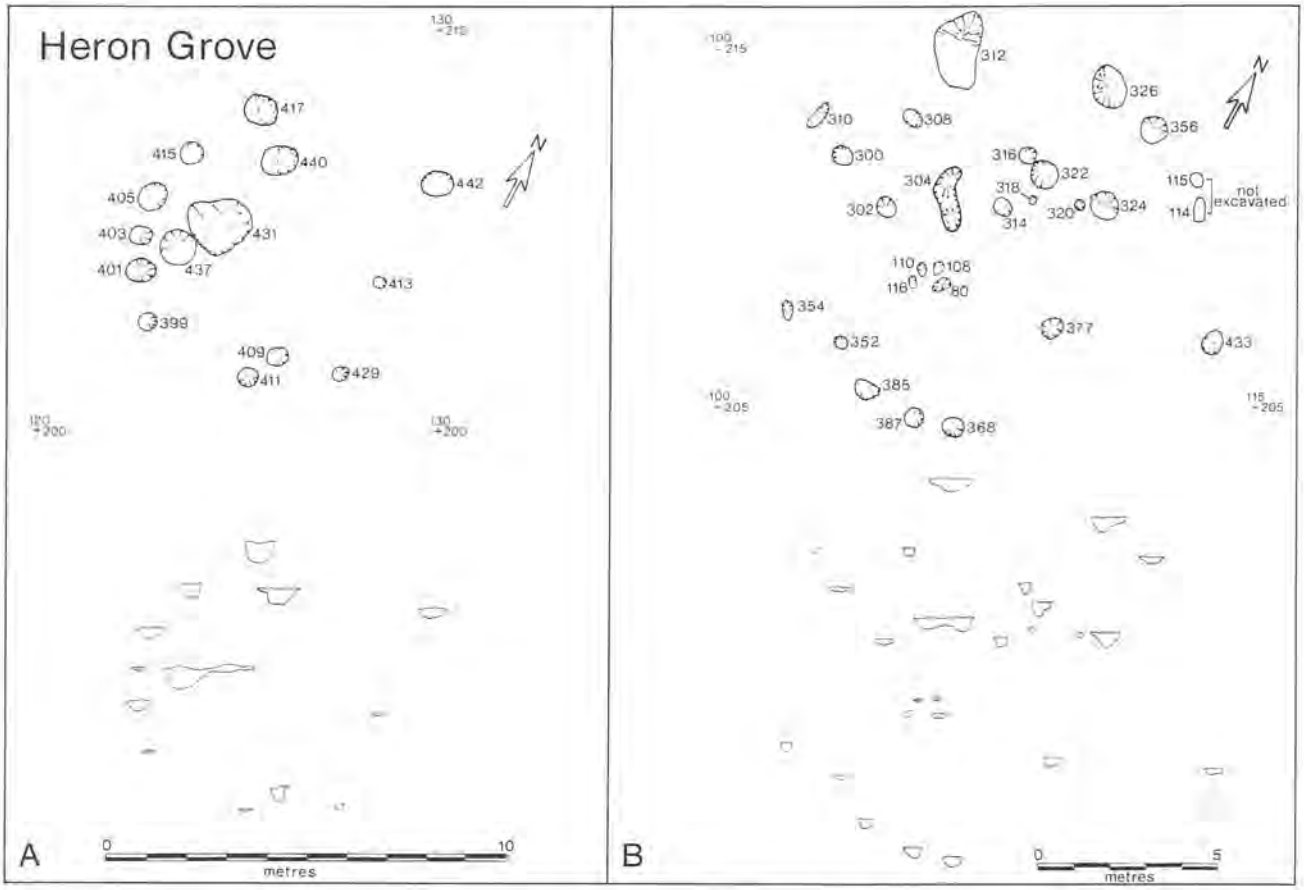

Figure 3A Plans and profiles of features in Structure 1 3B Plans and profiles of features in Structure 2

The hearths
Two hearths with differing constructional characteristics were identified on the site. Hearth 431 located within Structure 1 (see Figure 3A). Its profile appeared as a scoop rather than a well-defined cut. The sides were very gently sloping onto an even base, with a diameter of 0.75m and depth of 0.23m. The upper fill of the feature was a blackish-brown silty clay, at the base of which was a lining of pottery. Although still in situ the pottery was very fragmented and thus not possible to remove in one piece. Underlying this was a yellowish-brown silty clay.

The second hearth 364 was a shallow circular feature containing an uncharacteristically large quantity of burnt sandstone lumps and fragments. The diameter of this feature was 0.85m with a depth of 0.23m, with the profile showing moderately sloping sides onto an uneven, rounded base. Only one fill was present which was a greyish-brown silty sand, with no evidence for a lining.

It is possible to suggest that that the location of the two hearths represents evidence for two distinct areas of domestic activity. Hearth 431 in Group 1 is shown as a domestic hearth inside and presumably contemporaneous with Structure 1. Hearth 364 also has post-holes nearby; however, no definite structural patterns are discernible surrounding this area.

The linear feature
The north-south aligned ditch 344 was located at the western extent of the machine cleared area, where it was visible for approximately eleven metres. It's possible continuation was seen as a soil-mark running across the hilltop to the north. The profile of the ditch was shallow -sided with an even, flat base. The fill was a greyish-brown silty sand containing occasional flint fragments, as well as residual organic matter. The only artefacts present were some flint waste flakes. A possible continuation of this ditch was found during the evaluation stage, where ditch 46 was on the same alignment and had roughly the same dimensions. The only artefacts found in this section were two fragments of early Iron Age pottery. The presence of organic material within the fill of 344 suggests that the ditch is relatively recent and possibly associated with the former plantation. The artefacts present may therefore be residual.

Irregular features
Two large irregular features were located on the site, 312 at the northern end of Group II and 383 at its southern extent. These two deposits were in sharp contrast to the other features on the site which had clearly defined edges and shape. It is likely that both features may have been extended by tree root removal and/or animal burrowing.

A possible make-up layer or dumped deposit (444) was located in Group III. This was predominantly composed of re-deposited natural sands and gravels and was distinguishable by the presence of pottery. The boundaries for this deposit were very poorly defined, but the depth was shown to be greater than 0.50m. This deposit was cut by three post-holes.

Interpretation

Group I : Occupation Area
The density and distribution of post-holes in this group suggests a circular post-built structure, shown on Fig. 3A as Structure 1. This interpretation is further substantiated by the presence of internal features in the form of pit 437 and hearth 431, as well as a large quantity of pottery and other occupation debris, mainly within the structure. The dimension of the structure is c. 8.00m in diameter.

Other features in this area may also be associated with this phase of domestic activity.

Group II : Occupation Area
It is not possible to discern any clear structural patterns formed by the post-holes in this group. It is likely, however that a structure was present in this area, which is shown on Fig. 3B as Structure 2. This concentration of structural features also includes the post-pits described above. All post-pits were located at the northern end of Group II, but their relationship with the structure is unclear.

The area was one of intense archaeological activity, but with no discernible structural patterns. It is likely that structures are represented, possibly of more than one phase. Other feature types, such as pits and a possible hearth were also present in this group, but appear to have been located on the periphery of the main area of occupation.

Group III
Most of the post-holes in this group appeared to form a curvilinear double line of posts. The alignment appears to separate the two main areas of occupation; Groups I and II. The lack of occupation material from this group (only 3% of the total pottery assemblage) is considered significant.

THE FINDS

The Pottery by Jacqueline Dodd

A total of 1,399 sherds of pottery, weighing 10,563g was recovered from the evaluation and excavations in Area B. The collection was initially sorted into fabrics on the basis of type and size of macroscopic inclusions, identified visually with the aid of a hand lens. Twelve fabric groups were defined.

After fabric quantification, featured sherds (rims, bases and decorated sherds) were individually classified and described, noting vessel form, surface treatment, decorative treatment and position. For rim sherds the diameter, number (where conjoining sherds were present), and percentage present of the diameter were recorded. Base sherds were quantified. All details of number, weight, form and fabric by context and phase are held in the site archive.

The Fabrics
Twelve fabrics were identified. The total number and weight of sherds by fabric is shown in Table 1.

Fabric	Description	No. of Sherds	Weight (g)
1	moderate, medium sized flint tempering. frequently oxidised.	439	4,639
2	small fragments of iron tempering, oxidised exterior.	11	36
3	frequent large voids - limestone/chalkorange brown	36	376
4	rare to moderate flint tempering, generally reduced, with coarse surface.	306	1,370
5	rare to moderate flint tempering, oxidised exterior.	60	257
6	silt tempered, no visible inclusions.	120	608
7	silt tempered with rare flint inclusions.	101	608
8	frequent and large flint inclusions.	242	2,066
9	occasional and very small flint inclusions. Heavily reduced.	50	527
10	frequent and coarse flint tempering coarse pottery, frequently oxidised.	7	247
11	silty fabric with occasional flint inclusions. Heavily leached	26	244
12	sandy fabric with no other visible inclusions	1	2
Total		1,399	10,780

Table 1: Number and weight of pottery by fabric

Vessel / Rim forms.
The majority of the sherds recovered from the excavations were small and therefore it was not possible to differentiate between the round bodied, angular and furrowed bowls comprising the Form 1 vessels on the basis of rim alone. There was only one example of a round bodied vessel with no furrows (Fig. 4, no. 1) and one example of an angular vessel (Fig. 4, no. 2). The presence of furrowed vessels within the assemblage was only noted from body sherds. Furrowing is considered as a decorative element, below. Vessel forms and rim types identified in the assemblage are shown on Table 2.

Form no.	Description	No. of examples
1	round-bodied, angular, or furrowed bowls	10
2	vessels with plain straight rims	5
3	bipartite and tripartite jars	11
4	flat-topped, upright rims	8
5	pie-crust and finger-tipped rims	6
6	proto- beaded rims	1
7	everted, flat-topped and grooved rims	2
8	miscellaneous everted rimmed jars	4

Table 2 : Pottery vessel forms and rim types

Table 3 summarises total number of sherds by fabric and form. There were no diagnostic sherds from Fabrics 9, 10, 11 or 12. Fabric 1 has the greatest diversity of vessel forms, with Vessel Form 6 being exclusive to fabric 1. Vessel form 7 was exclusive to fabric 7. The paucity of diagnostic sherds within the assemblage does not allow for any further correlation to be determined with the remaining Vessel Forms being distributed among the fabric types.

Decoration

Decoration was coded and recorded for each sherd. Table 4 summarises the occurrence of decorative types. Fully quantified data held in the archive. Within Decoration Type 3 all vessels were bowls, with one exception of a sherd from a thick-walled furrowed jar.

FABRIC/ FORM	1	2	3	4	5	6	7	8	9
1	9	-	-	1	-	-	-	-	-
2	2	-	-	1	-	2	-	-	-
3	3	-	-	-	-	-	-	8	-
4	1	-	-	-	-	-	4	3	-
5	-	-	-	5	-	1	-	-	-
6	1	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	2	-	-
8	2	-	-	-	-	-	-	-	2

Table 3: Comparison of pottery fabric and form by sherd count

Decoration Type	Description	No. of Examples
1	Finger tip impressions	2
2	Finger nail impressions	1
3	Furrowed vessels	23
4	Incised multiple line chevrons	5
5	Incised linear band decoration	5

Table 4 : Summary of pottery decorative types

Surface Treatments

The only surface treatment present within the assemblage was red finishing (possibly haematite coating). Probable examples comprised 0.6 % of the total pottery by weight. In addition to the surface-treated sherds much of the pottery, particularly from Fabric Group 1, was fired from iron-rich clay and was heavily oxidised, giving it a distinctive red appearance, similar to the surface-treated sherds. A high proportion of the surface-treated sherds was also decorated.

Distribution

Some 44 % of the assemblage was recovered from the Group 1 post holes and associated features comprising Structure 1. The features which contained significantly large numbers of sherds were situated within the structure. Of particular note is feature 431, a probable pottery lined hearth, which contained 512 sherds, all of which were small and heavily abraded.

Group III is not thought to have been the focus of any domestic activity and contained only 3 % of the total sherds in the assemblage, with many of the post holes containing no pottery at all.

The larger post pits in group II contained higher amounts of sherds than the smaller post holes and round pits. In contrast to Group I these features lay outside the area of the probable structure. Group II also contained two features 80 and 332 with almost complete but fragmented vessels deposited within them. The vessels from both features were from Fabric 1.

Pottery Discussion

The general range of pottery types can be paralleled at many early Iron Age sites in southern England. Round-bodied and angular bowls, often with red finishing, are present at Sweet Briar Drove (Duncan, in Maynard forthcoming), 2km to the north. That site also contained examples of coarseware jars, including finger-impressed sherds, although furrowed bowls, seemingly a relatively common element at Heron Grove, are absent.

The low proportion of recognisably red-finished sherds together with the apparent absence of later forms such as cordoned bowls suggests that the Heron Grove assemblage is unlikely to continue beyond the 7th century BC, but a general date within the period c. 800-450 BC (in line with the range of radiocarbon date obtained from the Sweet Briar Drove material) would be appropriate.

Illustrated Sherds (Fig. 4)

1. Round-bodied vessel. Fabric 1 / Context 331 / FSN 603
2. Angular vessel. Fabric 1 / Context 331 / FSN 600
3. Furrowed bowl. Fabric 7. Red-finished / Context 327 / FSN 635
4. Furrowed bowl. Fabric 6 / Context 402 / FSN 674
5. Incised linear band decoration. Fabric 6. Red-finished / Context 432 / FSN 662
6. Bipartite/Tripartite jar. Fabric 1 / Context 327 / FSN 636
7. Flat-topped, upright rimmed vessel. Fabric 7 / Context 402 / FSN 675
8. Flat-topped, upright rimmed vessel. Fabric 7 / Context 402 / FSN 676
9. Finger-tipped rim. Fabric 8 / Context 357 / FSN 618
10. Finger-tipped rim. Fabric 8 / Context 313 / FSN 629
11. Pie-crust rim. Fabric 4 / Context 432 / FSN 614
12. Fingertip impression decoration. Fabric 7 / Context 327 / FSN 621
13. Proto-beaded rim. Fabric 1 / Context 325 / FSN 643
14. Incised multiple line chevron decoration. Fabric 7 / Context 325 / FSN 646
15. Incised multiple line chevron decoration. Fabric 7 / Context 357 / FSN 617

Ceramic Spindle Whorl by Jacqueline Dodd

One ceramic spindle whorl (Fig. 5), weighing 37g was recovered from excavation, and is unstratified. It is sub-spherical in shape with a round perforation through the centre, 8 mm in diameter, made prior to firing. The fabric, which does not readily correspond to any of the pottery fabric types, is tempered with frequent small and medium sized flint fragments and is reduced.

The Stone Objects by Jacqueline Dodd

A total of 17 fragments of worked stone was recovered from the excavation in Area B. All were fragments of saddle querns and had been fashioned from greensand. None of the frequently occurring ironstone fragments on the site showed signs of being worked in any way. Three fragments of quern stones from Feature 394 had been reused as post packing, with remains of clay and chalk bonding still adhering to two pieces.

The Worked Stone by Julian Richards and John Valentin

A total of 100 pieces of worked stone, both flint and chert, was found on the site. The condition was reasonably fresh, although cortication was varied. Table 5 summarises the assemblage by broad technological category.

Flake cores	Blade cores	Core frags	Complete flakes	Broken flakes	Retouched flakes	Complete blades	Broken blades	Scrapers	Arrowheads
7	2	7	50	24	3	1	2	3	1 broken leaf

Table 5 : The worked stone

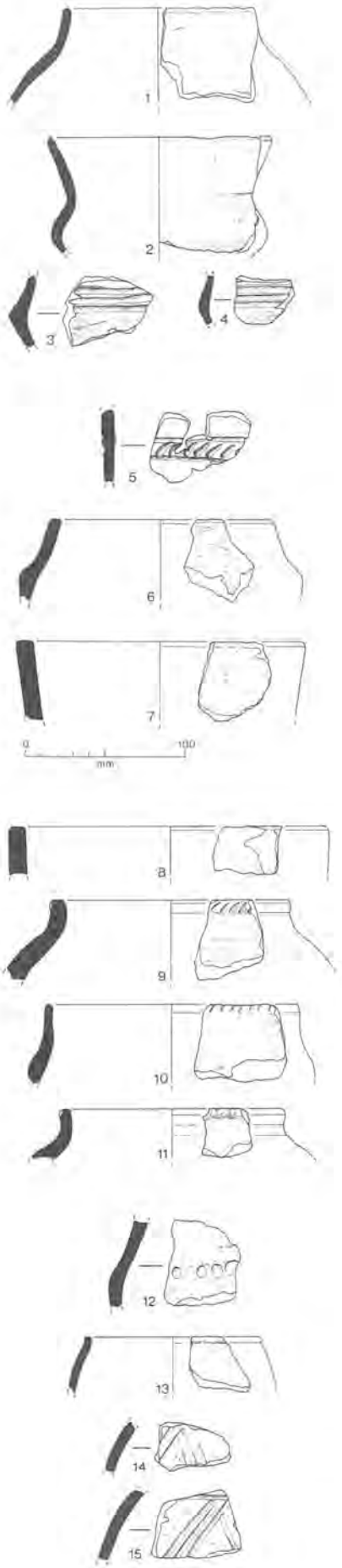

Figure 4 The pottery

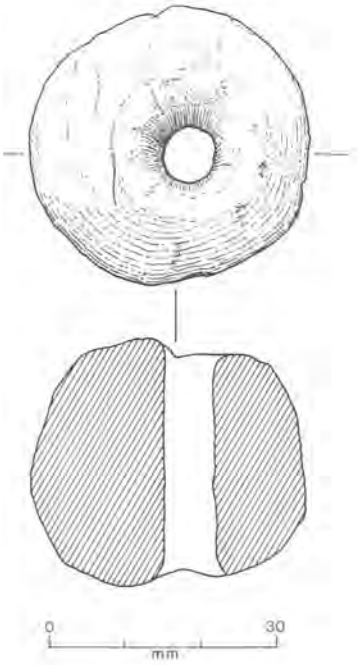

Figure 5 Ceramic spindle whorl

The assemblage is very small and mixed, with different technologies present. The occurrence of blade cores and blades suggest an early, possibly Mesolithic component, although the presence of a fragmentary chert arrowhead, which appears to be of leaf form, suggests the possibility that they may be of earlier Neolithic date. Although the assemblage does not contain any individual pieces which are diagnostically Bronze Age in date, debitage of this period would probably be technologically indistinguishable within such a mixed assemblage. It can be concluded therefore that the assemblage may range in date from the Neolithic (or earlier) into the Bronze Age. The possibility that some pieces may be contemporaneous with the main phase of activity on site cannot be ignored but cannot be demonstrated with certainty.

DISCUSSION

The range of feature types and the artefact evidence from Heron Grove, suggests that Area B on the hilltop was a domestic component of a more extensive settlement site of the early Iron Age. It seems reasonable to suggest that Heron Grove was a small, single phase early Iron Age settlement, with the pottery evidence indicating a date focussed on the 7th Century BC. There is no evidence for settled occupation extending into any other period, although it is anticipated that an earlier, Bronze Age, phase of activity will be further defined during subsequent work in Area C. This history of settlement contrasts with the site to the north at Sweet Briar Drove (Maynard forthcoming) which is situated on the chalk and where a longer period of settlement and a greater range of domestic, agricultural and industrial activities have been defined extending into the later Iron Age.

Limited evidence for the economy of the site can be assessed. The soils are too acidic for the survival of bone and hence evidence for animal husbandry is lacking. The frequency of quern fragments, particularly associated with Structure 2 indicates the processing of grain. No evidence for the locations of arable fields is available, but access to the floodplain of Stour valley is not unreasonable. It is noteworthy that several quern fragments appear to have been re-utilised as packing in post-holes and post-pits. The absence of evidence for metalworking on the site is also noteworthy, and contrasts with the Sweet Briar Drove site, where it is associated with a middle Iron Age phase of activity. The presence of metalworking cannot be dismissed elsewhere on the site to the south.

A high degree of organisation of settlement is apparent on the site and no substantial evidence for congestion is apparent; with the two main areas of occupation (Groups I and II) being

separated by a double line of posts interpreted as a double fenceline (Group III). Similar patterns of circular houses being bounded by a double fenceline can be seen at Winnall Down, the example being House H, Fence 4 (Fasham 1985).

As no evidence for archaeological activity was found to the north of this area, and with feature recognition fairly high, it seems likely that the full extent of the settlement in this direction has been established. Future excavations of Area C may reveal early Iron Age occupation over a larger section of the hilltop to the south, and a clarification of the Bronze Age funerary deposits which are known to be present.

Acknowledgements

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The illustrations are by Andrew Weale, with the exceptions of Figs. 4 and 5 which are by Robert Read. I am also grateful to Peter Cox, Jacqueline Dodd and John Hawkes for their helpful comments on the text.

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Excavations at Dorchester Hospital (Site C), Dorchester, Dorset

J. PATRICK GREENE
with contributions from
Justine Bayley, Peter S. Bellamy, Jo Draper, Martin Henig, and Elizabeth Watkins

SUMMARY

Excavation and observations on this site revealed that the earliest occupation dates from the mid 1st century AD and consists of a small boundary ditch and several pits. In the late 1st-early 2nd century a large quarry pit was dug. The corner of a stone-footed building (Building 2) and several pits, probably dating to the later 2nd-3rd century were encountered in the northern part of the site. There were traces of two further stone-footed buildings, only one of which (Building 1) was within the area excavated. This building was divided internally into at least four rooms and contained six ovens, four of which could have been used simultaneously. Some of the ovens were obviously inserted into the building. This building possibly dated to the later 3rd- 4th century, and was probably used for industrial purposes. Late Roman occupation is demonstrated by a variety of pottery forms and fabrics, unusual quantities of the latest Roman coins, and two bronzes of the late 4th or early 5th century.
Finds made just to the north of the site in the 1860's include a probably 7th century clasp - the first object of that date from inside the town.

Introduction

In 1969 the Dorset Hospital Management Committee announced that they were going to extend the Dorset County Hospital, Dorchester. Three linked buildings were planned to stand in what had, up until then, been a garden to the south of Somerleigh Court. Somerleigh Court was built in 1862 as a large town house, and this century became part of the Hospital. Two tennis courts had been built over the northern half of the garden, and the southern part was covered by substantial trees on what seems to be part of the Roman rampart. The trees and the tennis courts limited excavation to the central area of the garden, then a lawn. J. Patrick Greene directed excavations during September and October 1969 for the Dorchester Excavation Committee and the Ministry of Public Buildings and Works (now HBMC(E)). The subsequent contractor's trenches were observed by Christopher Chaplin.

Previous discoveries

A Roman building with mosaic floors found beneath, and to the south of Somerleigh Court is summarised in RCHM (1970, 561-2, mon. 189). Moule recorded that 'when the late Mr. Pearce built Somerleigh Court he gave the garden a deep trenching. This seems to have brought the 'Roman stratum' to the surface', and by 1906 '300 Roman coins, besides many English coins' and twenty-two bronze objects, including fibulae, spoon, etc., had been found (Moule 1906, 70, 74). It was this enthusiastic gardening which destroyed the upper stratigraphy in the excavated areas. Until Somerleigh Court was built, the area was part of a Nursery, and had earlier been the open field of West Walls (Mayo 1908, xxxi).

Location of trenches

Trenches 1 and 2 were two contiguous trenches forming a rectangular excavated area measuring 13 x 17 m, situated to the

Plate 1: Dorchester Hospital C: general view of trenches 1 and 2 from the east.

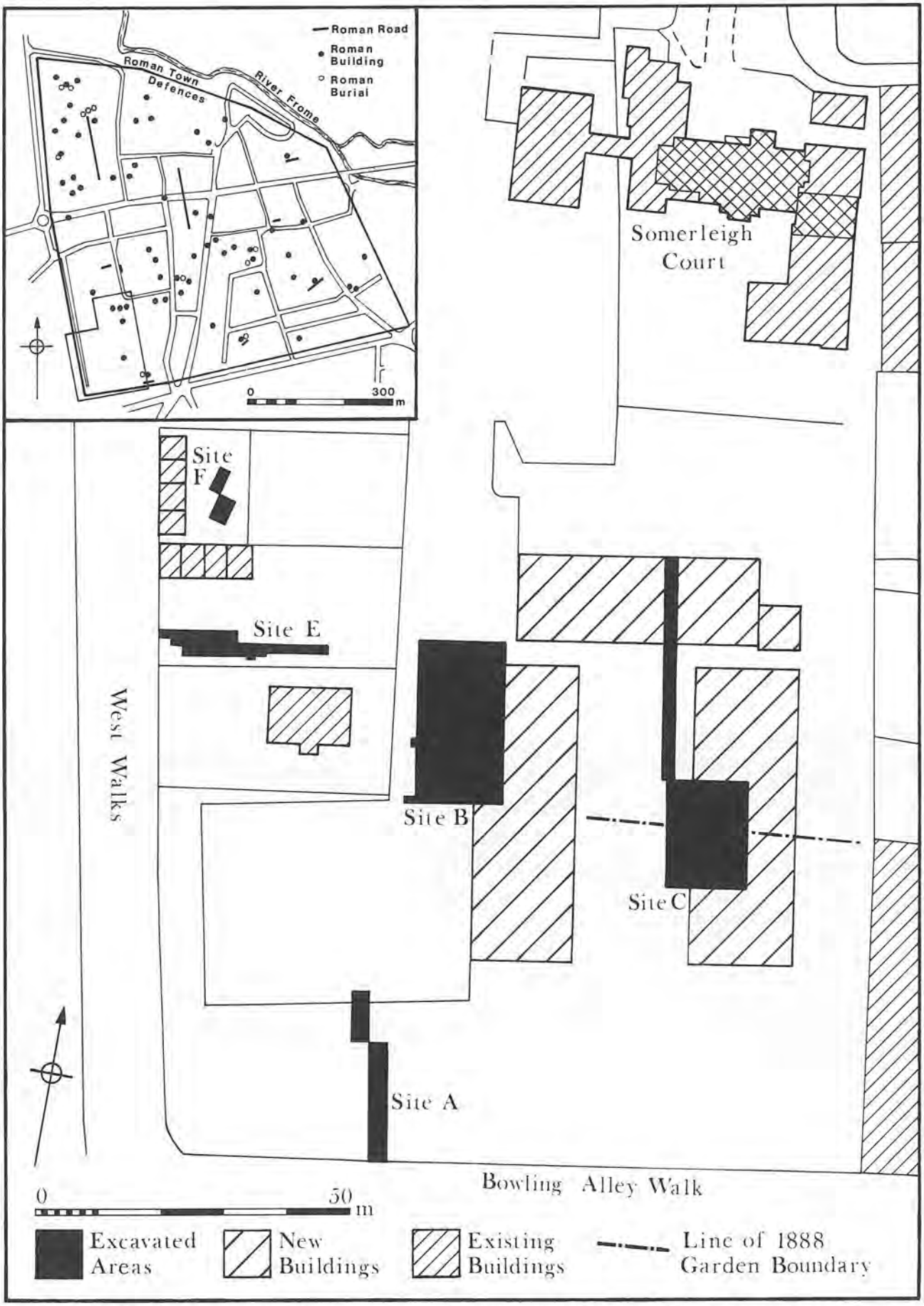

Figure 1: The 1969 and 1970 excavations at Dorchester Hospital, with the outline of Somerleigh Court, its terrace and greenhouse on the west taken from the 1:500 Ordnance Survey, superimposed over the present buildings. The dashed-and-dotted line across the trenches of Area C is the line of the 1888 garden boundary, seen on the site as a gully (2/10). The Hospital buildings erected after the excavations are shown as "New Buildings".

south of the tennis courts (Figures 1 and 2, Plate 1). Initially the northern half (Trench 1) was separated from the southern half (Trench 2) by a 1 m wide baulk, but this was largely removed during the course of the excavation. The dividing line between the two trenches was an old garden boundary. This line is marked on the 1888 1:500 Ordnance Survey as the boundary between the shrubbery to the south and the ?field to the north. The archaeological stratigraphy was much better preserved in the southern half (Trench 2). Trench 3 was a 35 m long and 2 m wide trial trench dug northwards from the NW end of Trench 1 along the western side of the tennis courts.

Excavated Features

The nineteenth century gardening had destroyed most of the stratigraphy, leaving, in the main, only those features cut into the natural chalk. This means that there is very little stratigraphic evidence available to phase the excavated features. However, it has been possible to divide the activity on site into seven phases on the basis of the finds.

There was not a unique numbering scheme used for all three trenches of this excavation, so, in order to separate the different features, each feature number in the text has been prefixed by the trench number. The features numbered on the drawings do not have the trench prefix.

Phase 1 mid 1st Century AD

The natural chalk bedrock was covered by a layer of chalky orange clay (1/54, 3/20, 3/64, 3/71, etc.) over much of the area of the trench. It contained some limestone rubble and other material, therefore it is not completely natural, but it may represent the disturbed remains of an early land surface.

There are very few features which can be confidently ascribed to phase 1. In the eastern half of Trench 1 was a V-shaped ditch (Ditch 1), oriented N-S, which terminated about 8 m southwards into the trench. It had slightly sinuous sides (Figure 3) measuring between 0.9 m and 1.15 m in width and was cut 1.3 m deep into the natural chalk (Plates 2 and 3). It was filled with a layer (1/68) containing large flints (up to 200 mm across) at the bottom and a layer of silty orange-brown clay with a very few small flints above (Figure 5). (This layer was numbered 1/64 in the northern part and 1/69 in the southern part of the ditch.)

On the eastern side of Ditch 1 were two possible postholes (1/75, 1/76) which had been partly destroyed by the later wall footings of Building 1 (Figures 2 and 3). They were both filled with orange silty clay with flints and some limestone rubble.

In the north-eastern corner of Trench 1, a pit (Pit 11) was discovered adjacent to Ditch 1 (Figures 2 and 3). Only the edge of this feature was uncovered so its full size and shape is not known. The portion excavated was filled with orange brown silty clay (1/74). This pit fill and the northern end of ditch 1 was sealed by a layer of orange-brown silty clay (1/65) containing quantities of burnt daub (Figure 5). On the western side of Ditch 1 another shallow pit (Pit 10) was found (Figures 2 and 3). Only part of this pit was inside the excavated area. It was filled with orange brown silty clay with chalk and flint (1/55) (Figure 5). In the north-eastern corner of Trench 1, at the junction with Trench 3, was another small pit filled with orange clay (1/62) (Figures 3 and 5).

Phase 2 late 1st - early 2nd Century AD

Only one pit (Pit 1) can be confidently ascribed to this phase. This was a large pit in the south-western corner of Trench 2. Only a small part of this pit was inside the excavated area, but later observations of the contractor's trenches showed that it was more than 6.0 x 12.5 m (Figure 2). The shape of the excavated part, appeared to indicate that this was a flat- bottomed pit about 2,2 m

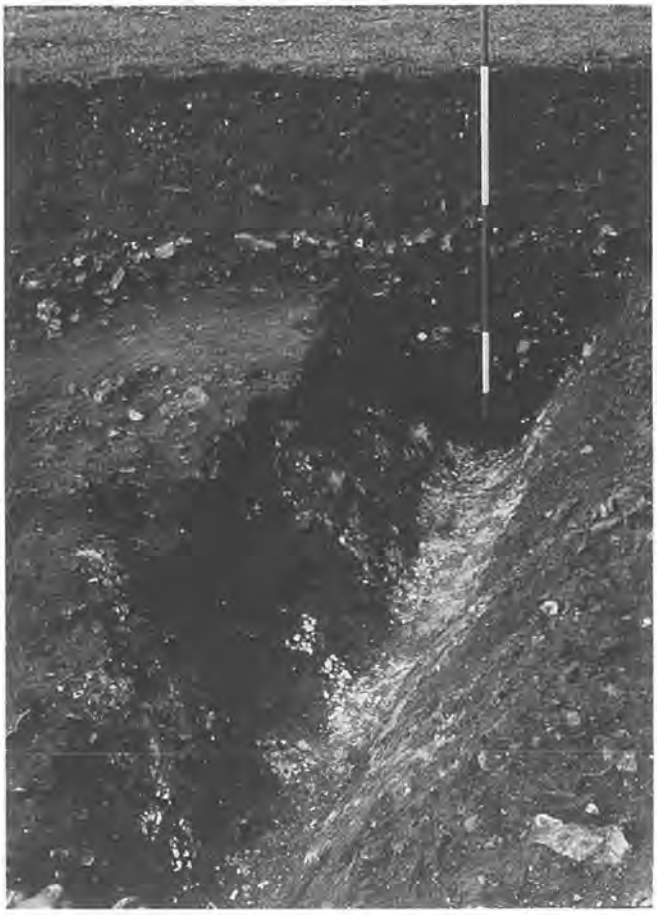

Plate 2: Dorchester Hospital C: Ditch 1 from the south, with the phase 5 rubble (1/10) visible in the section.

Plate 3: Dorchester Hospital C: Ditch 1 from the north, with the footings of Building 1 in the background.

deep (Figure 6, Plate 4). At the base of the pit was a layer of weathered chalk pieces in orange clay (2/45). Above this was a small layer of sticky orange clay (2/44) on the side of the pit and both of the above layers were covered by a layer of orange clay and flint gravel (2/37). All these layers appeared to be the result of weathering processes. Above these layers were several thin charcoal and ash layers tipped in from the east (Figure 6). The lowest (2/36) was a black, powdery, charcoal-rich layer with some chalk flecks, which was covered by a light brown powdery, ashy soil with some chalk flecks and flints (2/35), which in turn was covered by another thin charcoal layer (2/28). The pit was then filled with a thicker layer of red-brown ashy soil (2/25) flecked with charcoal and chalk with some crumbly burnt clay and occasional flints, and a similar slightly browner layer (2/23). Filling the central part of the pit, was a thin chalky layer (2/22), then a layer of yellow clayey soil with chalk flecks and some burning (2/21). The very top of the pit was filled with dark soil and flint (2/19) which probably represents part of the general layer of rubble covering this site attributed to Phase 5.

Phase 3 2nd - 3rd century AD

There was very little activity which can be ascribed to this phase, all of which occurred in Trench 3. In addition there is little dating evidence available.

Building 2

At the extreme northern end of Trench 3, the corner of a building was revealed (Figure 2, Plate 5). This consisted of a roughly E-W wall footing, 0.75 m wide and 0.6 m deep (3/83), which consisted of two courses of flint and limestone laid in herringbone fashion,

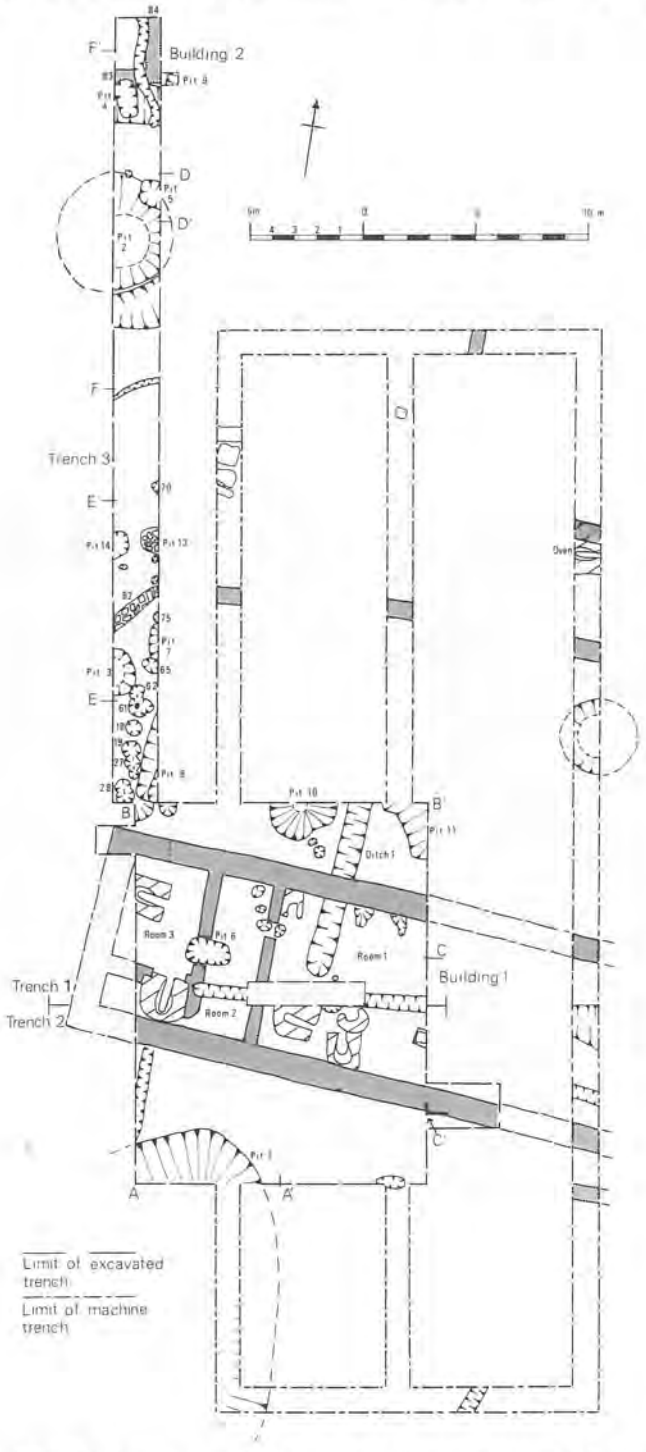

Figure 2: Dorchester Hospital Site C: plan showing all features from the excavation and the observation of the contractor's trenches.

above which was a course of flint nodules, capped by a course of flat-laid limestone blocks. This footing joined a similar footing running N-S (3/84), of which only the lowest two courses survived. It is not clear whether any floor levels survived within this building.

Pits and gullies

Running along the southern edge of Building 2 wall footing 3/83 was a shallow gully (Figure 2). This was filled with a layer of grey silty clay and chalk and a layer of orange clay (3/80) (Figure 9).

Adjacent to the south-eastern corner of Building 2, in a small extension dug to check that wall footing 3/83 did not continue eastwards, the very edge of a pit (Pit 9) was revealed (Figure 2). Very little of this feature was excavated so its size and shape is not known, nor its relationship with the gully described above. The filling (3/85) contained some pottery and animal bone.

At the southern end of Trench 3 was a possible shallow gully, oriented N-S, filled with dark soil with some chalk and flint (3/73, 3/79). This gully cut through the filling (1/62) of a possible phase 1 pit Pit 11(Figure 2). This gully was cut by Pit 8, which appeared to be sub-rectangular in plan (Figure 2) and was filled with grey clay soil with many small flints and chalk lumps (3/51). It contained pottery, animal bone and roof tile fragments. Another pit (Pit 7) lay to the north and was filled with powdery black soil with some flint and limestone rubble (3/66) and contained some pottery and animal bone. This pit was not bottomed.

Phase 4 Later 3rd - 4th century AD

The major element belonging to this phase is Building 1 and its associated features.

Building 1

A building constructed on flint rubble footings was built on an east-west alignment across the area of Trenches 1 and 2 (Plate 1). The northwestern corner of this building was revealed in a small extension to trench 1, but the eastern end of this structure was not revealed. Observation of the contractor's trenches, revealed that the building continued beyond the threatened area (Figure 2). Building 1 measured 7 m across internally and was at least 22.5 m long. It was divided internally into at least four rooms. This structure was not well- preserved: the walls did not survive above the level of the footings, and the floor levels were disturbed, especially to the north.

Structural elements: The external wall footings (1/34, 2/52) were *c.* 1 m wide, and consisted of roughly coursed flints (measuring 50-150 mm across) packed in orange clay set in a 0.6 m deep foundation trench. The northern wall footing 1/34 cut through Ditch 1 (Plate 3). The internal cross wall footings (1/51, 1/72) were half the width of the outer and were similarly constructed. The easternmost room (Room 1) was the largest, being at least 11.3 m long. A 0.75 m wide gap in the northern end of the cross wall 1/72 gave access into Room 2. This was a narrow room 7.0 x 2.4 m. A narrow gap in the southern end of cross wall 1/51 is probably the doorway into Room 4, a small room *c.* 3.7 x 1.5 m across, in the south-western corner of the building. Room 3 in the north-western corner was 4.8 x 3.4 m across. There was a doorway in the south-eastern corner of the room leading into Room 4. It is not known whether there was also access into these western rooms through the western end wall of the building.

Floor surfaces: The floor surfaces were not well preserved, especially in the northern half of the building. In Room 1 there was a layer of of orange clay with flints (1/36) overlying the natural. Ditch 1 and postholes 1/75 and 1/76 of phase 1 were not recognised until

Plate 4: Dorchester Hospital C: Pit 1 from the north-east.

after this clay layer was removed so they may have been sealed by it. This layer was similar to other areas of orange clay, both inside and outside of the building, and may be the remains of the original ground surface. It is not clear whether it formed an earthen floor in this room. In the southern part of the room, it was sealed by a chalky layer (2/33), which may have been the remains of the floor (Plate 6). In the southern half of Room 2 there was a layer of sticky orange clay with hard-packed flints (1/50), while further north there was a layer of orange-brown soil with a few flints (1/46) which may be a disturbed part of the clay layer to the south (Plate 7). This may represent an earthen floor or the base to a floor. In Room 3 most of the surfaces had been destroyed, but there was a layer of orange-brown soil (1/30) which may have been the disturbed remains of the floor or floor base. It is not clear what floor surfaces, if any, survived in Room 4, as only a very small part of it was excavated.

Internal features: A series of features was found inside the area of Building 1 but it is not clear what their exact relationship with the building is. The majority of features are ovens and the rest are mainly small postholes and pits. These will be considered below room by room.

Room 1: In the southern end of room 1 was a small cut (2/49) against the southern wall which contained the articulated skeleton of a small sheep/goat (Figure 3). This was partly sealed by chalk floor 2/33 and may have been a deliberate deposit buried under the floor of the room.

In the south-eastern (excavated) end of this room there was a large block of limestone (2/53) set into the floor (Plate 6). This block had a dressed flat top 0.48 x 0.32 m across with more irregular splayed sides at least 0.30 m thick. It was set in a small rectangular cut on a bed of flint nodules and limestone pieces (Figures 3 and 7). About 0.5 m to the south was another

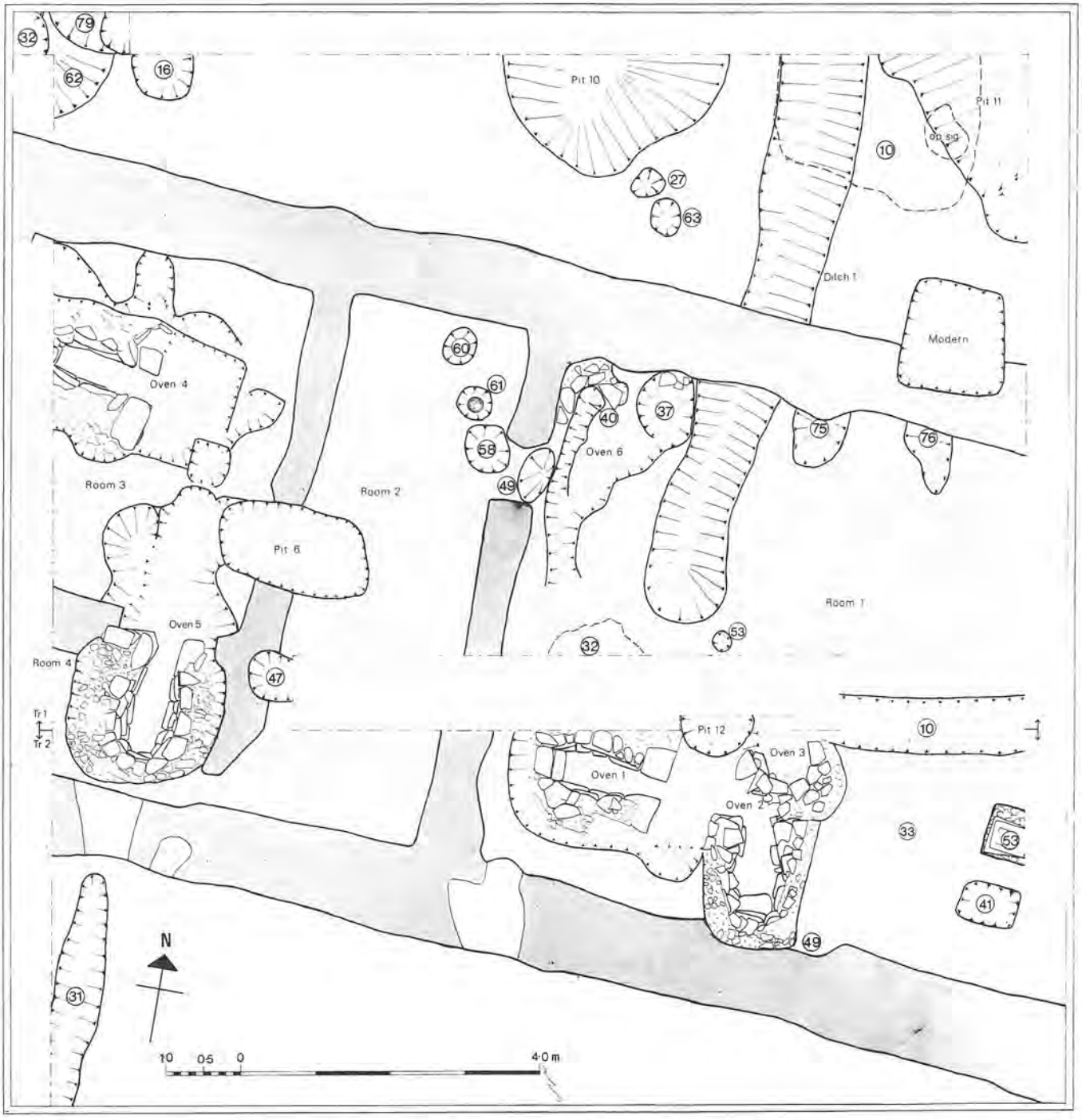

Figure 3: Dorchester Hospital Site C: detail plan of Trench 1 and the north part of Trench 2.

Plate 5: Dorchester Hospital C: Building 2 at the north end of Trench 3.

Plate 6: Dorchester Hospital C: Building 1, Room 1, chalky? floor layer (2/33), from the east, with the stone block (2/53) and cut (2/41) possibly for another in the foreground, and Ovens 2 and 3 in the background.

Plate 7: Dorchester Hospital C: Building 1, Room 2, flinty layer (1/50) in foreground and clay layer (1/46) beyond, with pot (1/61) buried in floor with lead (1/59) beside it in back-ground, from the south.

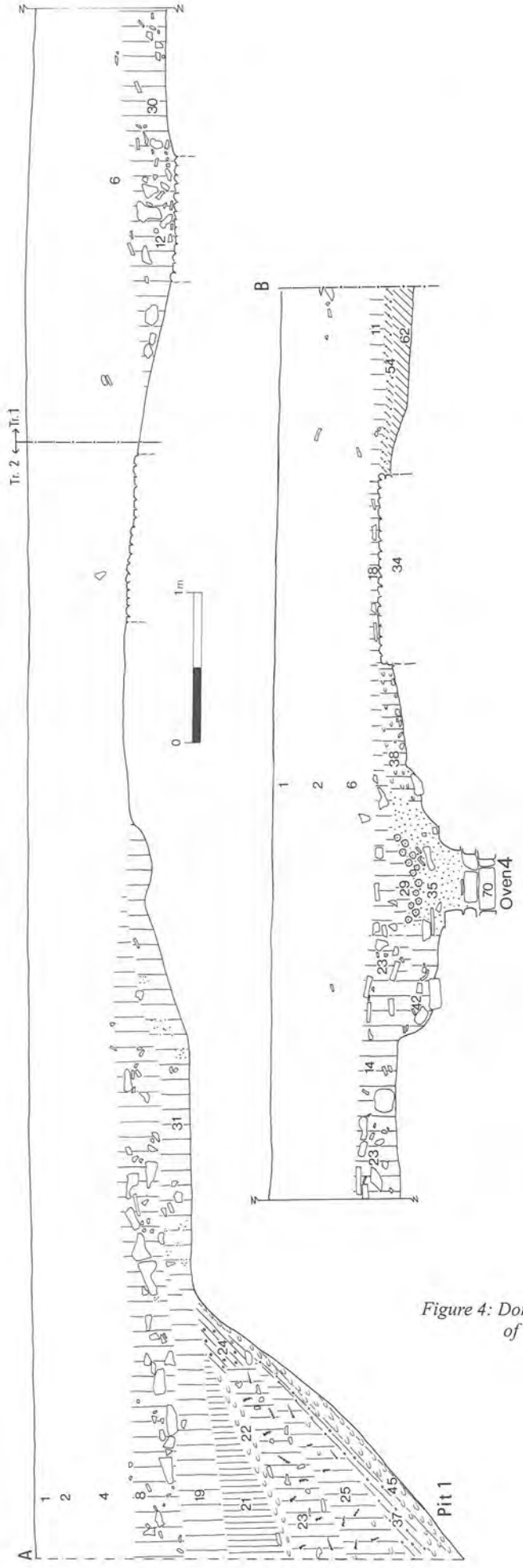

Figure 4: Dorchester Hospital Site C: Section A-B, the west baulk of Trenches 1 and 2 (the section is continuous). For key see Figure 8.

rectangular cut of similar dimensions (Figure 3, Plate 6). This was filled with a loose dark brown soil with flints, limestone and mortar fragments (2/41). It is possible that originally this feature also contained a large stone block which had been subsequently robbed out. As these features were at the very edge of the excavation, it is not known whether there were further similar features and so it is difficult to determine their function. The stone block may have been the base for a roof support or a support for some large internal structure.

In the south-western corner of the room, was a complex of three ovens (Figure 3). The earliest (Oven 1) was right in the corner, about 0.4 m from the walls of the building. It comprised a subrectangular pit cut into the natural chalk with the stone structure built into its western end, leaving a firing floor to the east. The oven was made from limestone blocks, which survived up to three courses high, bonded with white chalky mortar (2/42), to form a long narrow structure open to the east (Plate 8). Many of the stones had been burnt. At the base, inside the oven, was a black charcoal-rich layer (2/46). The oven was then filled with a mixture of burnt limestone rubble, mortared flints and mortar fragments (2/38, 2/39), presumably representing the debris from its collapse. To the north was a patch of burnt clay and flint (1/32) which may be related to the oven in some way, but it is difficult to tell as it was divided by the unexcavated baulk running between Trenches 1 and 2 (Figure 3). The oven was sealed by a layer of orange clay and then a layer of crushed yellow mortar, *c.* 0.20 m thick, and then a similar thickness of crushed chalk (2/40). This would suggest that the oven went out of use during the life of Building 1 and was floored over.

At the eastern end of oven 1 was another similar oven (Oven 2) which was built partly over the firing floor of the earlier oven, right up against the southern wall footings (Figure 3). It was constructed of mortared flint rubble with a facing limestone blocks bonded with chalky mortar (2/50), which survived up to four courses high (Plate 9). This long narrow structure was open to the north. Just outside this oven was a black charcoal-rich soil (2/29) which may be part of the rake-out from this oven.

Oven 3 was built on the firing floor of Oven 2, effectively blocking it. This oven was a slightly different shape to 1 and 2, being semi-circular (Figure 3). It was built of mortared limestone blocks, which survived three courses high (Plate 9). It was filled with stone rubble, mortar fragments and charcoal (2/26) similar to Oven 1.

Set in the north-western corner of Room 1 was another oven (6). This comprised a semi-circular limestone structure, surviving three courses high, packed with crushed chalk and stone (1/40) which was set in a hollow in the natural clay (Figure 3). This oven had a flue, in the form of a slight gully (1/48) running southwards from the opening of the oven structure. This was burnt red close to the oven, and was filled with charcoal-rich soil. The relationship between Oven 6 and the clay layer 1/36 which covered the northern end of this room is not clear.

On the eastern side of Oven 6 was an oval scoop (1/37) cut into clay layer 1/36, which was filled with black soil and burnt limestones. This may be debris from Oven 6. This feature may have been a posthole but its relationship with the oven is not clear. In the gap in the wall footings 1/72, the presumed doorway between Rooms 1 and 2, there was another possible posthole (Figure 3). This was a circular depression filled with flints and soil (1/49). The eastern side of this feature had been burnt red, presumably by Oven 6. If this feature was a posthole, it would have blocked the doorway. Its relationship with the floor layers and with Oven 6 is not known.

Room 2: The only features found in this room were in the north-eastern corner (Figure 3). There were two small, roughly circular, cuts 1/58 and 1/60, filled with orange-brown soil

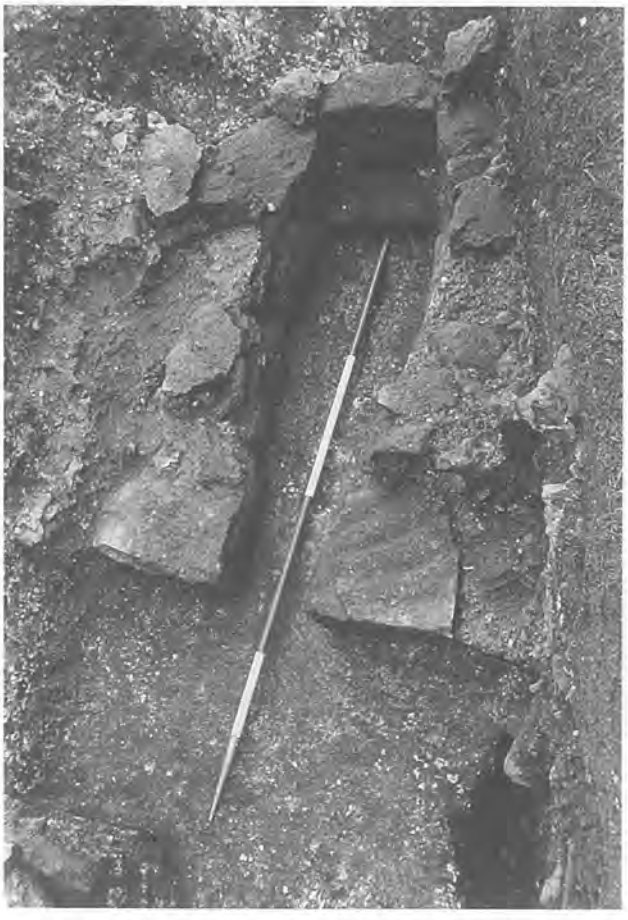

Plate 8: Dorchester Hospital C: Oven 1, from the east.

Plate 9: Dorchester Hospital C: Oven 2 and 3 (foreground), from the north.

together with some limestone and flint rubble, which may be postholes. Between these two features was a pot set upright in a small pit 1/61 (Plate 7). The mouth of the pot had been covered by a small slab of limestone. Immediately to the south of the pot was a large lump of melted lead (1/59). The relationship between these features and the possible floor layer 1/46 is not known.

Room 3: In the north-western corner was Oven 4 (Figure 3), the western end of which was outside the area of excavation but probably backed onto the western wall of the building. This oven was built of stone rubble bonded with chalky mortar and with limestone facings (1/70), which survived three courses high (Plate 10). It was a narrow rectangular shape similar to Oven 1, open to the east. The oven was set in a shallow cut, the eastern end of which was rectangular and functioned as a firing floor. At the base of the oven and firing floor was a layer of charcoal-rich

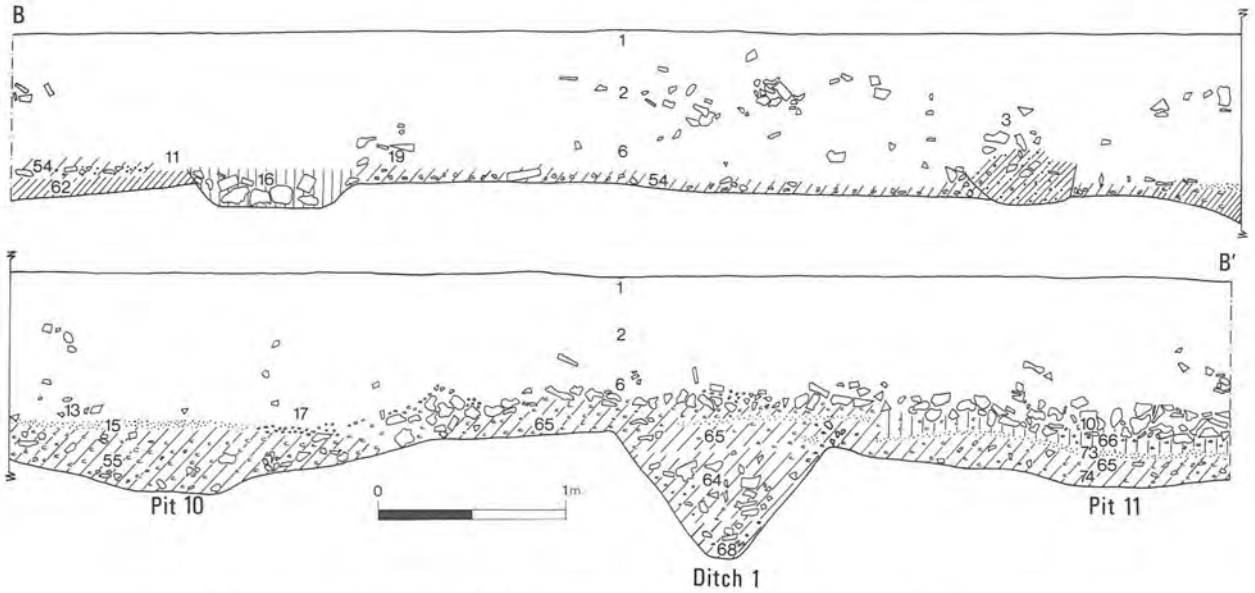

Figure 5: Dorchester Hospital Site C: Section B-B', the north baulk of Trench 1. For key see Figure 8.

Plate 10: Dorchester Hospital C: Oven 4 from the west.

black soil (1/44). This was covered by a layer of stone rubble, roof tiles and mortar debris which filled the oven (1/35), and above this was a mixed layer of soil, charcoal, chalk lumps, and some stone and mortar rubble (1/42) which filled the firing floor.

Room 4: Virtually the whole of the excavated area of Room 4 was taken up by Oven 5 (Plate 11). This was a long narrow oven similar to Ovens 1, 2, and 4 (Figure 3). It was constructed from flint rubble and puddled chalk with limestone facings bonded with coarse chalky mortar, which survived four courses high (1/71) in a cut into the natural chalk. The opening of the oven was right in the doorway into Room 3 and it appears that part of the wall footings were slightly cut away to insert it. The firing floor was on the northern side of the oven, in Room 3 (Figure 3). On

Plate 11: Dorchester Hospital C: Oven 5 from the north.

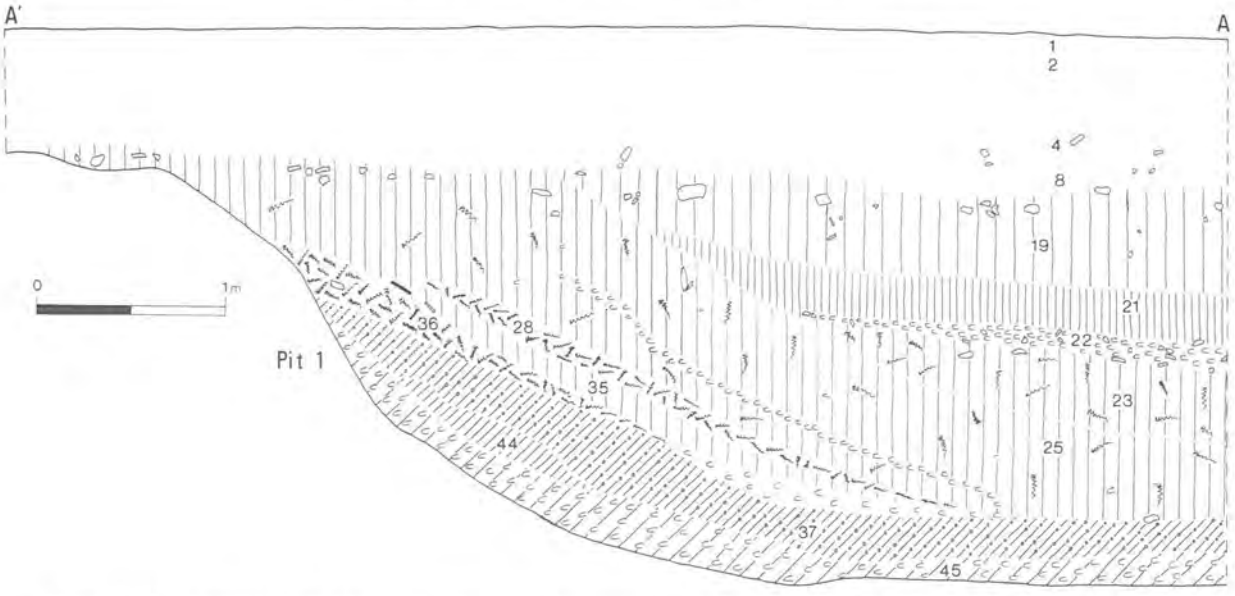

Figure 6: Dorchester Hospital Site C: Section A-A', the western part of the south baulk of Trench 2. For key see Figure 8.

the bottom of the oven was a layer of charcoal-rich black soil (2/20). This was covered by several layers of mortar and stone rubble, both flint and limestone, some burnt (2/18, 2/12, 1/20) which filled the oven.

Features outside Building 1

To the south of the building, there was very little evidence for activity which may be contemporaneous. At the western edge of the excavated area there was a small U-shaped gully which terminated just outside the southern wall of Building 1 (Figure 3) and ran southwards towards Pit 1 (Figure 2). The precise relationship between the pit and gully is a little unclear but it seems that the pit was substantially filled before the gully was created. The gully was filled with dark brown soil with mortar and flint rubble and chalk flecks (3/73, 3/79, 1/31).

To the north of the building, in the north-eastern part of Trench 1, there were two thin spreads of white chalky mortar (1/15 and 1/73) which covered Ditch 1 and Pits 10 and 11 (Figure 5). These mortar spreads were similar in composition to the mortar bonding in the ovens within Building 1.

Plate 12: Dorchester Hospital C: Trench 3, from the southern end,with line of post holes in foreground.

Running northwards continuing the line of the western wall of Building 1, along the western side of the phase 3 gully, was a parallel line of postholes (Figure 2, Plate 12). These postholes were between 0.5 - 0.7 m in diameter and between 0.35 - 0.50 m deep, cut into the orange clay layer 3/20 and the chalk bedrock below. Several of the postholes had traces of post pipes. In postholes 3/18 and 3/19, there was a relatively stone-free area about 0.15 m in diameter surrounded by flint and limestone rubble packing with dark soil. The post pipe in 3/19 was filled with orange clay. Posthole 3/61 had a smaller post socket, 0.2 m in diameter, cut into the bottom of it, and the post pipe was visible as relatively stone-free black soil surrounded by flint and limestone packing. The other post holes (3/27, 3/32, 3/62, 3/65, 3/75, 3/81) were filled with dark soil and flint and limestone rubble, except 3/28 which was filled with orange clay and stone rubble. Posthole 3/32 cut 3/28 and 3/62 appears to cut 3/61, but the relationship between 3/62 and 3/81 is not clear. To the north of this line of postholes were several more small possible postholes (3/75, 3/67, 3/68, and 3/72), which did not fit into any pattern (Figure 2).

Several pits probably also belong to this phase. These were all found in Trench 3 and only one (Pit 4) was completely within the excavated area. so their overall shape and dimensions are not known. They will be described in turn from south to north. On the western side at the southern end of the trench was a pit (Pit 3) about 2.25 m across and 3.55 m deep (Figures 2 and 8). The filling of this pit can be split into four. At the base was a layer of grey clay (2/78) with a layer of small chalk pieces (3/77) above it. No finds were recovered from these two layers. Above were two thick greenish layers which, judging from the slumping of the layers above it, had subsided significantly. These appeared to be layers of cess. The lower deposit was a greenish-yellow powdery layer (3/76) with a concentration of flint and limestone near the bottom and lenses of chalk throughout,together with patches of charcoal and fragments of burnt material, but only one pot sherd. The upper deposit (3/69) was a dark greenish clay, flecked with charcoal and containing large sherds of pottery. Above this cess was a series of thin ash and rubble deposits (Figure 8) comprising a yellowy-orange ashy layer (3/50) with some chalk lumps; then a black charcoaly layer (3/49); followed by a layer of brown chalky soil with much flint rubble (3/48) which contained some roof tile; covered by a light brown and grey ashy layer (3/47); a layer of yellow-brown decomposed mortar (3/40) containing fragments of tile, wall plaster, and some stone rubble; a layer of black charcoaly soil (3/39); and a layer of light grey ashy soil and chalk (3/38). The final layers filling this pit were all dark soil layers, perhaps later filling after the subsidence of the pit. Above layer 3/38 was a layer of dark charcoal-rich soil (3/34) containing occasional flints and pieces of limestone and many finds. This was covered by a similar layer (3/33), which was greyer and more ashy. The upper part of the pit was filled with rubble (3/15) which was part of a general rubble layer across the site (see below).

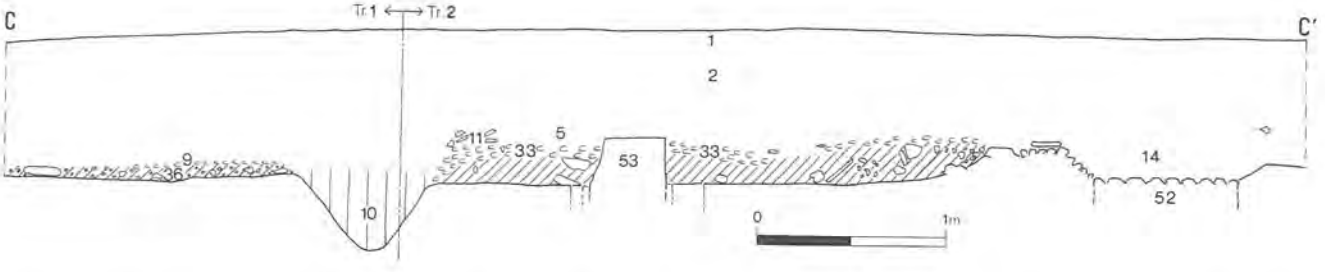

Figure 7: Dorchester Hospital Site C: Section C-C', part of the eastern baulk of Trenches 1 and 2, across Building 1. For key see Figure 8.

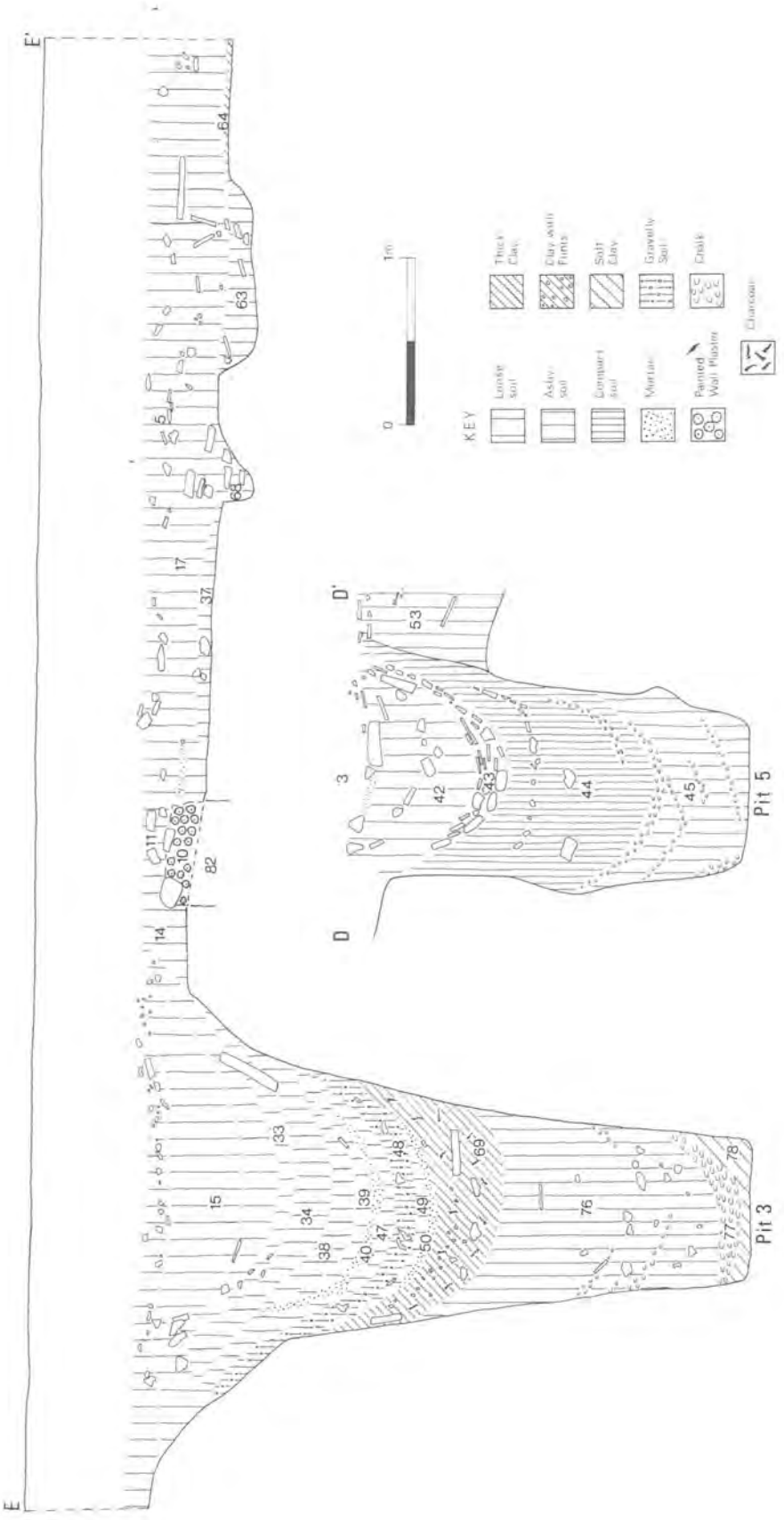

Figure 8: Dorchester Hospital Site C: Section D-D', the north end of the east baulk of Trench 3; and section E-E', the southern end of the west baulk of Trench 3.

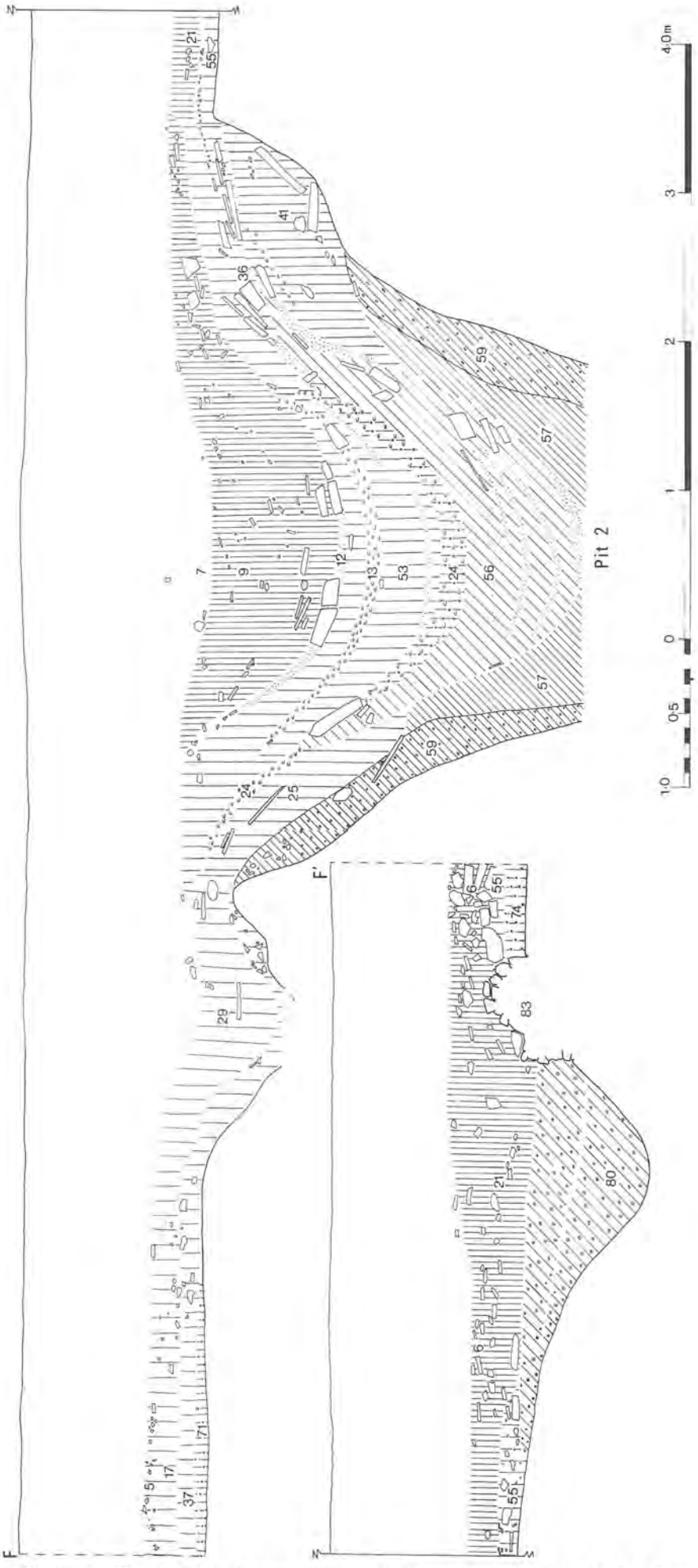

Figure 9: Dorchester Hospital Site C: Section F-F', part of the north end of the west baulk in Trench 3.

Plate 13: Dorchester Hospital C: Pit 13, from the west.

To the north of Pit 3 was a small pit (Pit 14), in the western side of the trench (Figure 2), filled with dark soil with flint and limestone rubble, tile, pottery and animal bone (3/63). Pit 14, together with postholes 3/67, 3/68, and 3/72, were covered by a layer of brown powdery soil 3/37. Cut through this layer, adjacent to pit 14 was a small pit (pit 13) which was lined with limestone slabs (3/58) (Figure 2, Plate 13). The limestone slabs were covered by a thin layer of grey silt and the rest of the pit was filled with dark chalky soil with flint rubble and fragments of limestone and ceramic tile (3/54).

Towards the northern end of Trench 3 were the partially excavated remains of Pit 2 which may be the top of a well (Figures 2 and 9, Plate 14). Excavation of this pit ceased at a depth of 2.5 m because of safety reasons. At the base of the excavation, the pit was about 2.4 m across with near vertical sides. At the top, the pit was wider, measuring about 5 m across. The shape of the top of Pit 2 suggested that there may have been a stone lining around the mouth of the well. This is most evident on the northern side where a small shelf cut into the natural chalk survived (Figure 9). The sides of the pit were covered with a thin layer of orange clay with flints and some chalk pieces (3/59). This may be a lining, but is more probably the result of weathering. All of the fills in this feature had slumped considerably. The lowest fill was a dark grey sticky clay (3/57). Above this around the top of the pit was a layer of grey-brown clayey soil (3/41) with a few large limestone pieces which filled the 'shelf' on the northern side and on the southern side there was a similar layer (3/25) which contained a large quantity of limestone rubble. Layer 3/41 was covered by a layer of limestone rubble (3/36). Above layer 3/57 and partially covering 3/25 and 3/41 was a layer of soft light brown clay (3/56) with lenses of coarser material and a few large pieces of limestone. This was covered with a thin layer of very

Plate 14: Dorchester Hospital C: Pit 2, from the north-east.

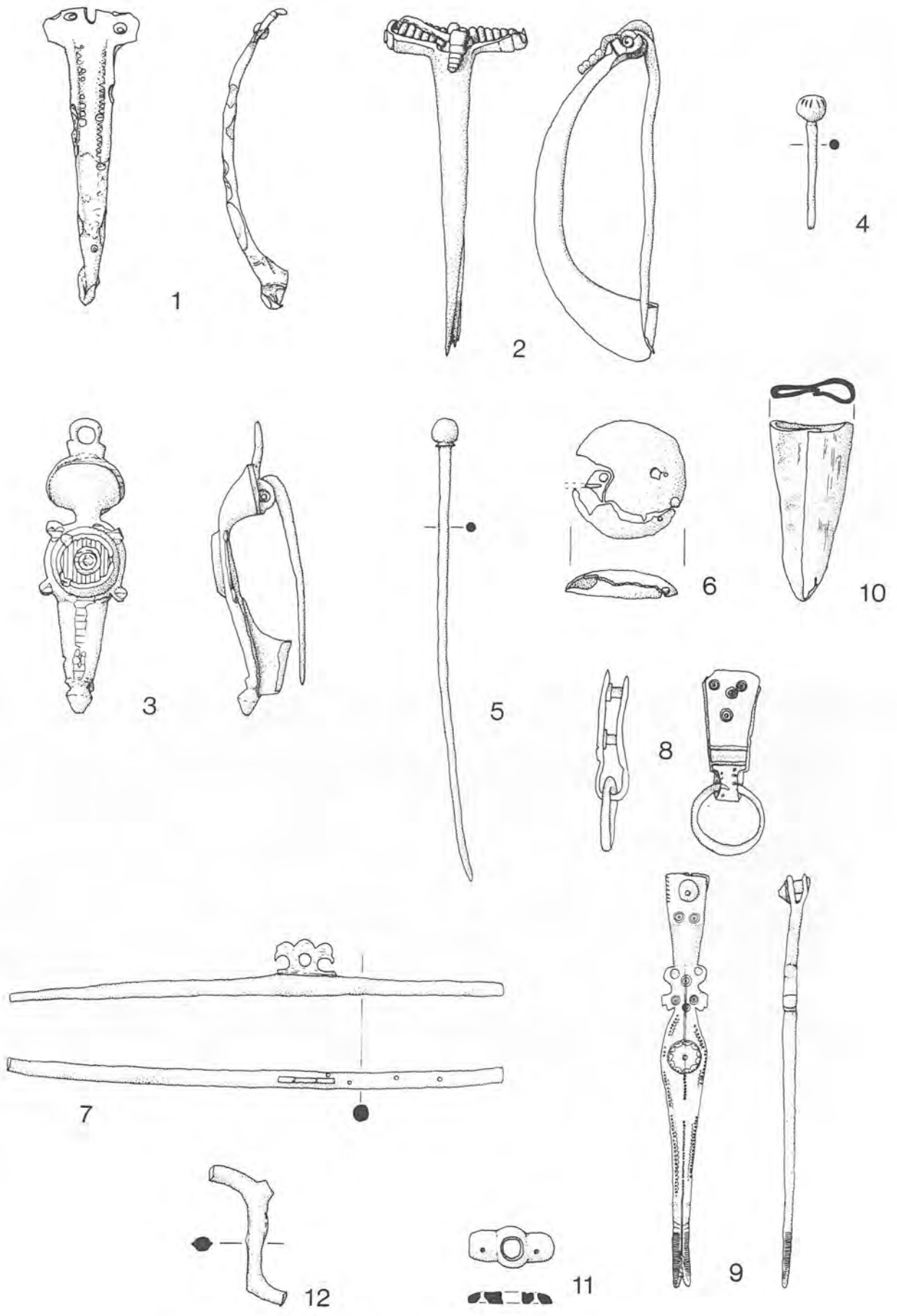

Figure 10: Dorchester Hospital Site C: The 'bronzes', nos. 1-12, at life-size

chalky soil (3/25), a layer of light grey powdery ashy soil (3/53) and another thin layer of crushed chalk (3/13). Above this was a layer of large limestone and flint rubble (3/12), possibly dumped into the top of this feature to consolidate it. The top of the slumped pit fills was covered by a layer of dark grey ashy soil (3/9). Curving around the southern edge of Pit 2 was a small gully (Figures 2 and 9). It was filled with grey powdery soil with chalk flecks (3/29). The significance of this gully is difficult to assess given that such a small part was exposed.

The northern side of Pit 2 was cut by Pit 5 (Figures 2 and 8, Plate 15). This pit was cut through layer 3/53, so it was dug at a point when Pit 2 was completely, or almost completely, filled. Pit 5 measured about 1.2 m across and had vertical sides and a flat bottom 2.1 m deep. The lower half of the pit was filled with dark grey powdery soil, probably decayed cess, with lenses of chalk and occasional lumps of stone rubble (3/45). Above this was a similar layer, but with more limestone, mainly roofing slabs (3/44). Above was a layer of limestone and flint rubble (3/43), and a layer of greyish chalky soil and stone rubble and tile (3/42), both of which had slumped significantly.

Cut into the wall footing 3/83 of Building 2 and the filling (3/80) of the gully immediately outside it was a roughly rectangular, flat-bottomed pit (Pit 4), 1.6 x 0.9 m across and 0.8 m deep (Figure 2). At the bottom of the pit was a layer of orange clay with flints (3/52), above which was a powdery grey ashy soil (3/35), flecked with charcoal, and containing some building rubble including *opus signinum* and painted wall plaster fragments, and two whole pots. The rest of the pit was filled with dark soil with chalk lumps and some building rubble (3/31).

Phase 5 Late Roman

There are few features which can be ascribed to this phase. In Trench 1 there was an oval pit (Pit 6) which cut the wall dividing Rooms 2 and 4 in Building 1 and the edge of the firing floor to Oven 5 (Figure 3). This pit measured 2.0 x 1.1 m across and was filled with a compact chalky layer (1/56) and a layer of black soil with much stone rubble including limestone roofing slabs (1/43) above. There were several late 4th century coins in the fill. This pit was probably dug after Building 1 was demolished.

A small sinuous gully, filled with dark soil (3/16), was found in the northern end of Trench 3, cutting the footings of Building 2 (Figure 2). It may also belong to this phase. Its significance is not clear, but it was created after the demolition of building 2 and may just be the result of later disturbance or robbing of the building.

The major component of this phase is a spread of dark soil and rubble laid down over the whole of the excavated area. This layer was about 0.1-0.2 m thick and covered the remains of all the features described above. The stone rubble comprised both flint and limestone pieces, including a large quantity of limestone roof slabs, as well as patches of mortar and painted wall plaster. There were concentrations of stone within this spread, but no significant features could be discerned. This layer was given many different numbers in the different areas of the trench and where it had filled the tops of pits where the fills had settled.

Phase 5 Post-Roman

The evidence for this phase consists of a single clasp (Figure 12, no. 30). No features could be attributed to this phase.

Phase 7 Medieval and post-medieval

All the evidence for this phase is associated with the garden of Somerleigh Court. Running E-W along the boundary between Trenches 1 and 2 was a small V-shaped gully (Figures 3 and 7) which terminated inside the trench to the west (2/47). It was filled with black soil containing 19th century finds (2/10). This gully

Plate 15: Dorchester Hospital C: Pit 5, cut through the upper part of Pit 2 (right).

cut through the rubble layers of Phase 5 and represents the 1888 garden boundary (Figure 1). The whole of the site was covered by a layer of black soil and rubble, about 0.5 m thick, which lay below the topsoil, and was probably formed as a result of landscaping the garden.

Unphased Features

Very few features in the excavation could not be fitted into the phasing sequence described above. The majority of features were small irregular disturbances or small patches of material, and are probably of very little significance to the understanding of the site. There was one more substantial feature which cannot be easily fitted into the site sequence, namely, a drystone wall (3/82) which crossed the middle of Trench 3 in a NE-SW direction (Figure 2). This wall comprised a single course of large limestone blocks, up to 0.40 m wide, roughly set in packed chalk, together with some flint rubble and tile. This wall was built on top of the early, Phase 1, chalky orange clay 3/64. Above the wall was a layer composed mainly of painted wall plaster debris, which may represent the filling of a robbing trench for this wall. The orientation of this wall is different from all the other structural remains revealed by the excavations.

The other unphased features were all found during the observations of the contractor's trenches. These consisted of various traces of wall footings which appear to be the remains of another building, roughly parallel to Building 1 (Figure 2). A semi-circular oven was found close to one of the walls. Various other wall fragments were also revealed, but are difficult to interpret. One other pit was also discovered to the north of Building 1.

Chronology and Discussion

The chronology is based largely on the finds found within each feature. This means that the dating, in fact, refers to the period when the feature has gone out of use; for example, the final filling of pits and the filling of the remains of the ovens. Many of the fillings of the later features contain building debris, including roof tile and painted wall plaster. Close dating of the earlier phases is difficult in the absence of the samian pottery.

Phase 1

The small number of features ascribed to Phase 1 make it difficult to interpret the early activity on site.

Ditch 1 was most probably a boundary feature, possibly marking a property division, though no details beyond the general orientation of the boundary is known. As the later Building 1 was on the same orientation as Ditch 1, it suggests that the boundaries laid out at this early stage continued to influence the later Roman development of this area. Ditch 1 contained coarse wares probably dating from the middle of the first century AD, and also two brooches (nos. 1 and 2) dating to *c.* AD 50-60, which give a representative date for the filling of the ditch. Pits 10, 11, and 12 seem to be of a similar date.

Early pottery, possibly Claudian, was found to the north of the site in 1963 (RCHM 1970, 561-2) along with possible military equipment. There are no military artefacts associated with the early features on site so it is not possible to determine whether this early Roman activity was military or civil.

Phase 2

Again, the small number of features make it difficult to characterise the nature of the activity during this phase. The very large size of Pit 1 suggests that it might have been a quarry pit and its proximity to the ramparts suggest that the chalk obtained from it was used in the construction of the town defences. The coarsewares from the upper ashy fills of the pit would fit the early second century AD date, suggested by a brooch (no. 3) from this context. This may suggest that it was dug late in the first century AD, a date which would fit the construction of the primary rampart. Large pits of a similar date have been found further to the north on the Library site, Colliton Park (Aitken and Aitken 1982) and Merchant's Garage (Bellamy 1991) 30-40 m behind the back of the rampart. An even larger quarry pit found on Dorchester Hospital Site E, on the other hand, seems to date from early in the third century.

Phase 3

There is not much evidence of activity in this area during this phase; possibly the main focus was to the north of the excavated area, as the main evidence consists of Building 2 in the northern end of Trench 3. Only the south-eastern corner of this structure was uncovered, so very little can be said about its size and function, or about its date of construction and the length of time it remained in use. It appears to have been demolished before the later 3rd-4th century AD, which is the date of the filling of Pit 4 which cuts through the wall footings. This suggests that this building predates Building 1.

The gully in the southern end of Trench 3 may be a property boundary replacing the phase 1 boundary Ditch 1.

The small number of pits belonging to this phase, do not give much evidence for the type of activity taking place on the site during this phase. The suggested 2nd-3rd century dating of this phase is very tentative as very little dating evidence was recovered.

Phase 4

The main activity on site appears to belong to this phase, which includes Building 1 and most of the pits. The date of the construction of Building 1 is not known; the only stratigraphic evidence available is that it was constructed at some time after Ditch 1 had filled up, that is, at some time later than the mid first century AD. Although the building crossed this earlier boundary feature, which had clearly gone out of use, the general alignment of the boundary was retained. Building 1 was a long narrow rectangular structure with some internal division. The internal layout and functions of the different rooms is difficult to determine from the surviving remains, and the small size of Room 4, in particular, is puzzling. It is clear from the positioning of Oven 5 that this Room went out of use when the oven was constructed. The surviving possible floor surfaces indicate that this building was probably provided with chalk or earthen floors. This together with the presence of a total of six ovens suggests that this was an industrial building. None of the ovens show any signs of vitrification, and so are unlikely to have been used as furnaces for a high temperature process such as metal-working (Justine Bayley pers comm). The small amount of smithing slag found (see below) does not relate to the ovens. The pot let into the floor in Room 2 and the stone block in Room 1 may bear some relation to the industrial processes in the building, though the precise industrial activity remains unclear. The balance bar from Oven 4 (Figure 10 no. 7) and the tiny hammer (Figure 12 no. 30A) recovered from the area in the 1880's may be significant.

Not all the ovens were in use at the same time. The group of three ovens in the south-west corner of Room 1 (Ovens 1-3) formed a sequence with Oven 1 being replaced by Oven 2 which was, in turn, replaced by Oven 3. The other ovens could have been in use simultaneously, though none are necessarily original features. Oven 1 contained post-270 AD pot sherds as did Oven 6. The rubble covering Ovens 4 and 5 contained 4th century AD coins. Thus the ovens appear to have gone out of use in the late 3rd or 4th century.

If quantities of ash were produced it seems to have been disposed of outside the area of the excavation. The ash in Pit 1 seems to have been deposited too early to have come from the ovens and the only other deposits (in Pit 2, and the upper part of Pit 3) seem too minor to be associated with the ovens, although the date of these fit the proposed later 3rd-4th century dates for the ovens. Large numbers of ovens in a similar position right at the edge of the town were found at Colliton Park (Aitken & Aitken 1982).

Running NNE from the north-western corner of Building 1 there was a property boundary, marked by a fence with the fence posts set in individual postholes. This boundary is probably a replacement of the earlier phase 3 boundary ditch.

It is interesting to note that there are no pits which can be associated with Building 1 (except perhaps the unphased pit found observed in the contractor's trenches). All of the pits of this phase are to the west of the property boundary in the adjacent plot, perhaps indicating a different functional zone

Phase 5

Although there is only a small amount of evidence for any Roman activity postdating Building 1, 253 of the 473 coins from the site are of the last possible issues of AD 388-402. However, these late coins were all concentrated in Trench 1, with only five from the other two trenches, so it is possible that they may be part of a disturbed hoard, rather than evidence for concentrated late Roman activity in the area. There was undoubtedly some late Roman occupation in this area as, along with the late coins, there was some distinctively very late Roman pottery, and two 4th or even 5th century bronzes (Figure 10 nos. 8 and 9) found in the rubble spread sealing the remains of Building 1. The rubble spread contained exclusively Roman material, and probably represents the levelling of the area after the destruction of the building.

The small Pit 6 cutting the remains of Building 1 is the only feature of any significance which can be dated to this late Roman period; the other features ascribed to this phase may only be the result of disturbance. Pit 6 appears to have been deliberately filled with material including a lot of building debris, which was probably still easily available on site after the destruction of Building 1. The fact that only a single pit was found suggests that there was not an intensive occupation of the area at this time.

Phase 6

The apparently 7th century clasp (Figure 12 no. 30) found in the 1880's is the first object of that date from within the Roman town. Unfortunately it was not found in a secure context and has no associated pottery, so its significance for activity in this area is frustratingly unclear. No features of this date were uncovered from the excavation.

Phase 7

There is no evidence for any further structures on this site after the Roman period. The area became part of the garden of Somerleigh Court in the late 1860's. Gardening activity had destroyed any evidence for other medieval or post-medieval activity

Copper Alloy Objects

by M. Henig

Brooches

1 Strip brooch 'Maiden Castle' type: head ornamented with two studs, one on either side of groove for hinged pin which is missing. Zig-zag ornament down sides of bow. Length 53mm. Compare Butcher 1982, 108-9, fig.8 no.2 (Colliton Park) and Mackreth 1979, 232-4, no.4 (Exeter) and references cited. Mid 1st century Mackreth states that the type was probably going out of manufacture well before AD 75. 1/64, Ditch 1.

2 'Colchester' type brooch (Camulodunum III). This example has wide side wings and a long spring. The tongue is curved back onto the bow. Length 60mm. See Brailsford 1962, 6-7, nos.C1-C8 (Hod Hill). Crummy 1983, 12 and fig.6, no.40. Data as last. 1/64, Ditch 1.

3 Trumpet brooch: type with enamelled disc on bow. It has a loop at the head and a plain 'trumpet' over the spring. The disc has four projections and is ornamented witha register of blue enamel with another of silvering (or tinning) outside the enamel. A spine of silvering/tinning continues down the bow to the foot which ends in an ovoid knob. Length 53mm. Compare Richardson 1960, especially fig.2 no.13 (Wroxeter). Also Mackreth 1977, 130 and 132, fig.54 no.8 (Scole), suggesting a date early in the second century. 2/23, Pit 1.

Pins

4 Pin (point broken) with globular head, ornamented by rilling. Length 24mm. 2/9, lower topsoil.

5 Pin with globular head, below which is a simple moulding. Length 83mm. 1/10, cobbled area.

Tweezers (not illustrated)

Length 25mm. (corroded). 1/54, orange clay. Part of one arm of a pair of tweezers. Length 29mm 1/2, topsoil.

Spoon

6 Bowl of cochlears, with stub of handle, tinned. Diameter 20mm. 2/21, Pit 1.

Balance

7 Bar of balance (incomplete) with central pierced suspension lug. It is graduated on one side with punched dots. Length 92mm. Compare Crummy 1983, 99 no.2508. 1/42, Oven 4.

Late Roman belt fittings

8 Attachment with ring suspended from it, probably for suspension of decorative rosette. The plate is bent round on itself, and cut to a triangular form; front and back are joined together by means of two rivets. The front face is ornamented with two parallel transverse mouldings and four ring-and-dot motifs. Length 33mm (incl. ring). See Kirk and Leeds 1952-3, 66; pl.IVa and fig.27b (Dorchester, Oxon) and on the continent; Evison 1965, 12-13, pl.2a,c (Belleray, Heuse). 1/23, rubble.

9 Belt end of Tortworth type, resembling a nail-cleaner. At its end it is bifurcated and has a rivet with a pyramidal head through it. The head rapidly narrows to a neck of fiddle-shaped form ornamented with ring and dot. The body is elongated/pearifom, and has an attractive, circular motif on its front face. Length 76mm. Compare Boon 1959, 80 and pl.III. A1 (Silchester); Broadribb, Hands and Walker 1978, 98 and fig.41 no.242 (Shakenoak); Wheeler 1943, fig.96 no.15 (Maiden Castle); of Hawkes 1961, 24, fig.8 (Tortworth, Gloucs.). 1/42 Oven 4.

Medieval

10 Chaps (for dagger). Length 31mm. 2/2 topsoil.

11 Belt fitting witha central opening for rivet and two pin holes. Length 15mm. Type as Heighway 1983, 186-7, fig.107 no.25 (Gloucester). 1/14 rubble.

12 Cast spectacle buckle, incomplete, width *c.* 25mm. 2/9, topsoil.

Not illustrated - boot lace tags (2), Length 22mm, 15mm, 1/14, rubble.

Post-medieval

13 One side of shoe buckle ornamented with floral motifs and an outer band of circles. Width 39mm. 18th century. 1/2, topsoil.

14 Ornament from buckle (?), ornamented with floral sprays and volutes. Length 32mm. Late 18th century. 3/2, topsoil.

Misc. objects

15 Rectangular plate, upper surface notched along edges - two rivet holes, one with rivet surviving. 23mm by 9mm. 1/23, rubble.

16 Strip of binding ornamented with repousee scrolled ornament. Length 25mm. 3/19, post hole.

17 Boss, domed (top and any pin lost). Diameter 18mm. 1/17, rubble.

18 Stud with domed head. Diameter 11mm. 1/69, Ditch1.

19 Simple finger ring; D-shaped section. Open terminals. Half has been lost. Diameter 20mm. 2/6.

20 Ring, simple hoop of D-shaped section ornamented on outer rim with punched dots. Diameter 17mm. 2/6, modern context.

21 ?Pin, manufactured from rolled sheet. Length 68mm. 1/64, Ditch 1.

22 ?Pin manufactured from rolled sheet. Head consists of metal curled over at one end. Point at other end is missing. Length 55mm. 1/12, topsoil.

Not illustrated: 'Harness rings' diameter 25mm, (2/6 post-medieval), diameter 19mm (2) (both 1/23 rubble); diameter 20mm (2) (1/23, rubble, 1/42, oven 4); diameter 18mm (4) (1/3, topsoil; 1/42, oven 4 (two); 1/46, orange clay).

The Roman finds include two interesting examples of Late Roman metalwork dating from the late fourth (or even early fifth) century A.D., at the time when the Poundbury cemetery was being used and the town evidently enjoyed a peiod of considerable prosperity. The objects each represent a belt made of leather but ornamented with bronze fittings; such items were part of the accoutrement of any self respecting citizen of the time and are not - as has sometimes been thought, evidence for Germanic barbarians.

There are also three brooches of an earlier period; of these the trumpet brooch, a fine specimen of a somewhat unusual type, is noteworthy.

The rest of the Roman objects and those of medieval and post-medieval date are not unusual or worthy of special comment.

1880s small finds

by Martin Henig

Roman

23 1893.2.10 M 250
Spatula-probe (*spatholema*) silver tinned spoon of elongated, ovoid form; keeled. There is an elaborate moulding between the spoon and the shaft. At the other end is an ovoid bulb (probe).
In good condition but the spoon is worn at the tip. Length 128mm. For the type see Milne 1907, pp.61-2, pls.XIV, I and XV, 1; *London in Roman Times*, p.81 and pl.XXXVII, 6; Crummy 1981, pp.60-61 for the spoon no.1921, fig.64, and for the moulding and the probe at the other end nos.1929 and 1931, fig.65.

1893.2.16 M 249
Pair of compasses, length 75mm.
Not illustrated: Published by Henig in *PNHAS* 105, 1983, p.159.
The stamp described as a Chi-Rho (=*Chr*(istos)) may in fact be an Iota-Rho (standing for Icesus) *Ch*(ristos). However the compasses remain strong evidence for Christianity in late Roman Dorchester.

24 1893.2.7 M 92
Finger ring with offset triangular shoulders, emphasised by grooves along the edges of the two sides. There is a pronounced carination at the waist. The bezel is a raised oval, designed for cutting in intaglio although this has not been done. Width across shoulders 22mm.
Ring is of typical third-century form of Henig 1981, p.129. For a close parallel Henkel 1913, p.87 pl.XXXVI no.930 (from Dalheim).

25 1893.2.19 M 94
Child's(-) Finger ring, circular with zig-zag ornament around the hoop. Diameter *c.* 15mm.
cf Neal 1974, p.138 and fig.60 no.142 (Gadebridge Park) Crummy 1981, p.47 and fig.50 no.1766 (Colchester, boldered lap joint).

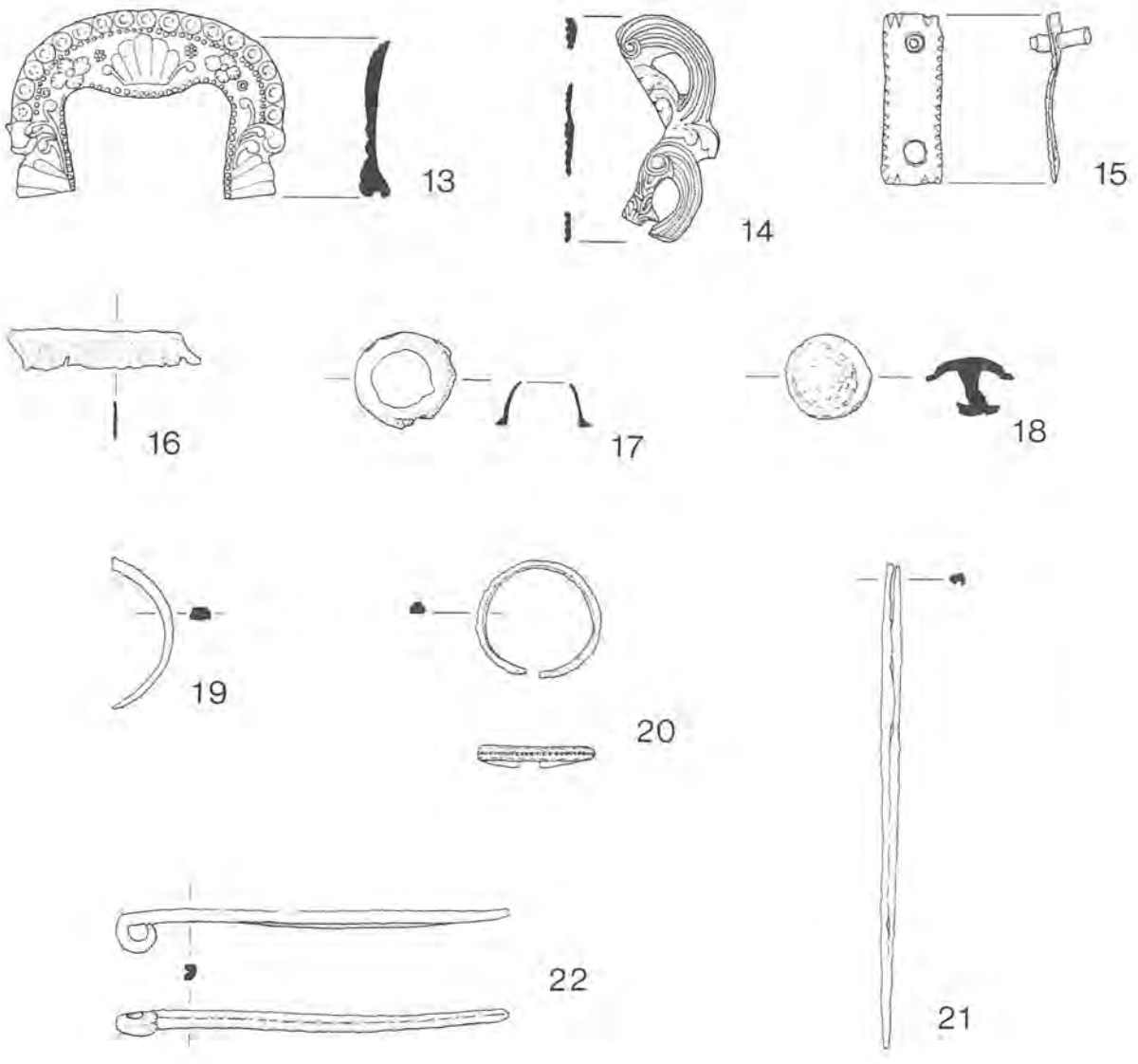

Figure 11: Dorchester Hospital Site C: The 'bronzes', nos. 13-22, at life-size

26 1893.2.18 M 93
Finger Ring, heptagonal externally, circular internally. Diameter *c.*19mm but the ring is slightly bent out of true.
This is a third and fourth century form.
For a parallel cf R. Goodburn and F.O. Grew in Frere 1984, p.31 and fig.10 no.62 (Verulamium). Crummy 1981, p.49 and fig.52, no.1788 (white metal, from Colchester).

27 1893.2.9 M 159a
Dolphin-brooch
This specimen is decidedly home made, the bow consisting of a sheet of metal formed into a tapering tube and bent to a gentle curve. In the underside of the narrow end of the tube, a peice of sheet metal has been set as a catchplate. Over the wider end, a small piece of metal ornamented with three repousee bosses has been rivetted on; it was preumably designed to carry the spring. Zig-zag tracer ornament runs down the back of the bow. Length 50mm.
It is ultimately a derivative from a brooch such as Richmond 1968, p.39 and fig.31 bottom right, presumably mid first century. How much later is the Dorchester brooch? - perhaps first half of second century.

28 1893.2.8 M 127
Penannular brooch, with reverted and pinched terminals; possibly zoomorphic, pin missing. Diameter 25mm.
cf Wheeler 1943, p.264 fig.86 no.8 (Maiden Castle) but this brooch is much smaller; also Hattatt 1982, p.132 fig.57, no.117 (Thetford, Norfolk).

29 1893.2.22
A small decorative plate, probably from a belt. Trapezoidal plate ornamented with two ring-and dot motifs each with a central piercing (for a rivet?), between them is a band of zig-zag tracer ornament. There is another rivet hole towards one end of the plate. Length 17mm.
This is a typical example of late Roman, 'Vermond' style metalwork. cf J. Webster in Cunliffe 1975, p.203 or 19 fig.110 (Portchester). Fourth century A.D.

Anglo-Saxon?

30 XI
Simple clasp with circular plate.
Ornamented with concentric circles. There are two off-centre rivet holes plus a hole of slightly smaller diameter in the centre. Length 17mm.
For the type see Leach 1982, p.252 no.81, fig.119 (Ilchester); Down 1978, 296 and fig.10.34 nos.56 and 61; also G.C. Dunning in O'Neil 1952, pp. 79-80 fig.13, nos.2-5 (Whittington Court, Gloucestershire) and Boon 1959, p.83, pl.III no.C2 (Silchester) where a mid-Saxon date is given.
I am grateful to Guy Grainger for discussing this object with me, and for informing me of two similar clasps from Grave 16 Castledyke, Barton-on-Humber probably seventh century. This item was presumably used to fasten some item of dress but it is far too slight to have served as a clasp for anything requiring strength.

Medieval

Finger Ring (not illustrated)
1893.2.20 (NOT EXAMINED as in Poole Museum)
Finger ring, originally containing a stone but the bezel is now empty. Fixture was by means of four claws. The shoulders are ornamented with incised v-shaped decoration. Diameter 23mm. Probably 15th century. For the claw setting on a thirteenth century gold ring see, for instance Hurston 1982, p.28, pl.9 (Godfrey de Ludham, Archbishop, and p.40, pl.34 (Thame hoard, fifteenth century).

Amulets

Pewter lunula, missing the end of one of the horns, length 18mm.
Pewter bell (flattened) length 17mm.
Both bells and lunulas have a long history as protective, apotropaic symbols, see Crummy 1983, p.51, pos. 1806 (lunula) and 1811 (bell) from Roman period burials.
In the present instance I am tempted to ascribe a Medieval date to

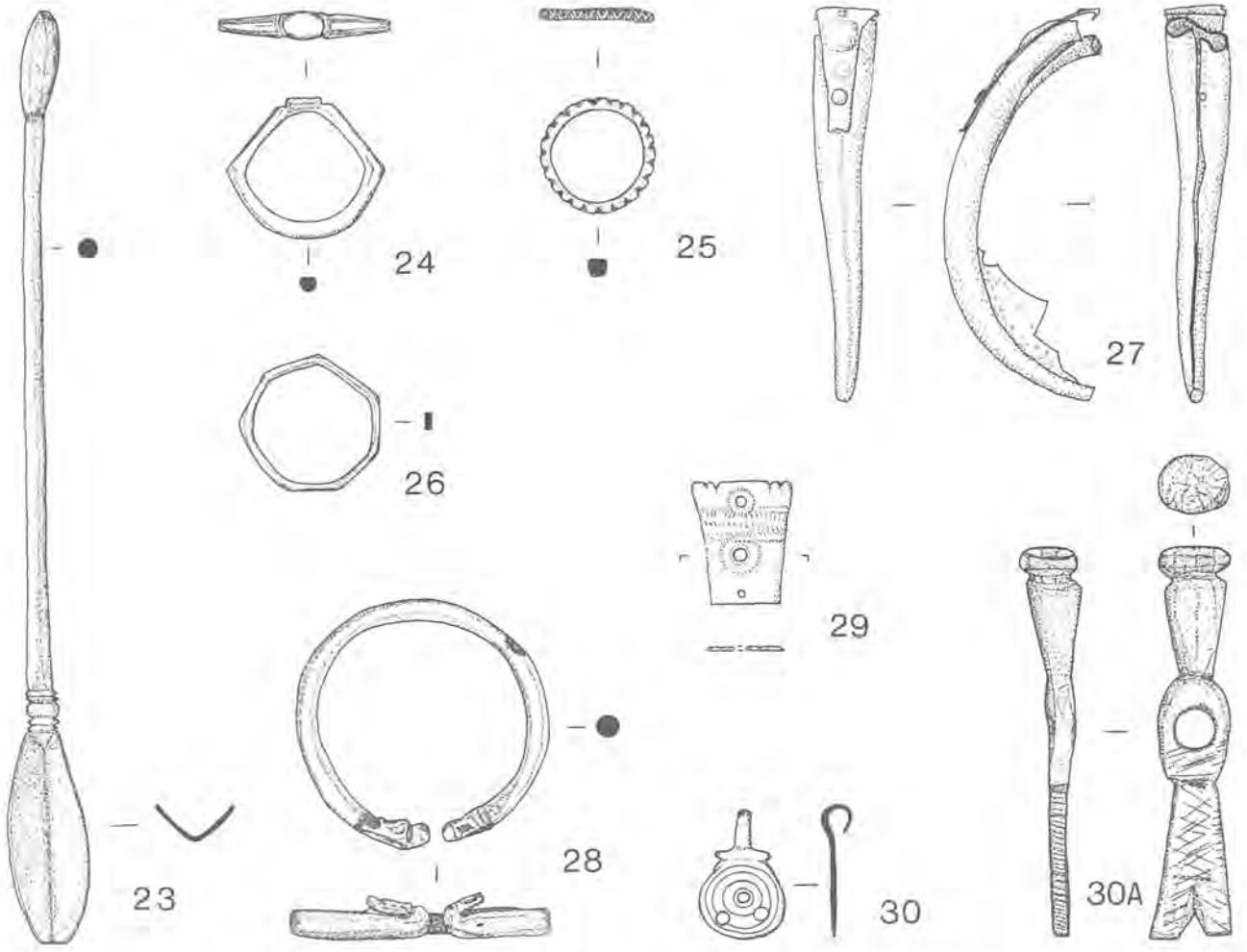

Figure 12: Dorchester Hospital Site C: The 1880's small finds, nos. 23-30A, at life-size.

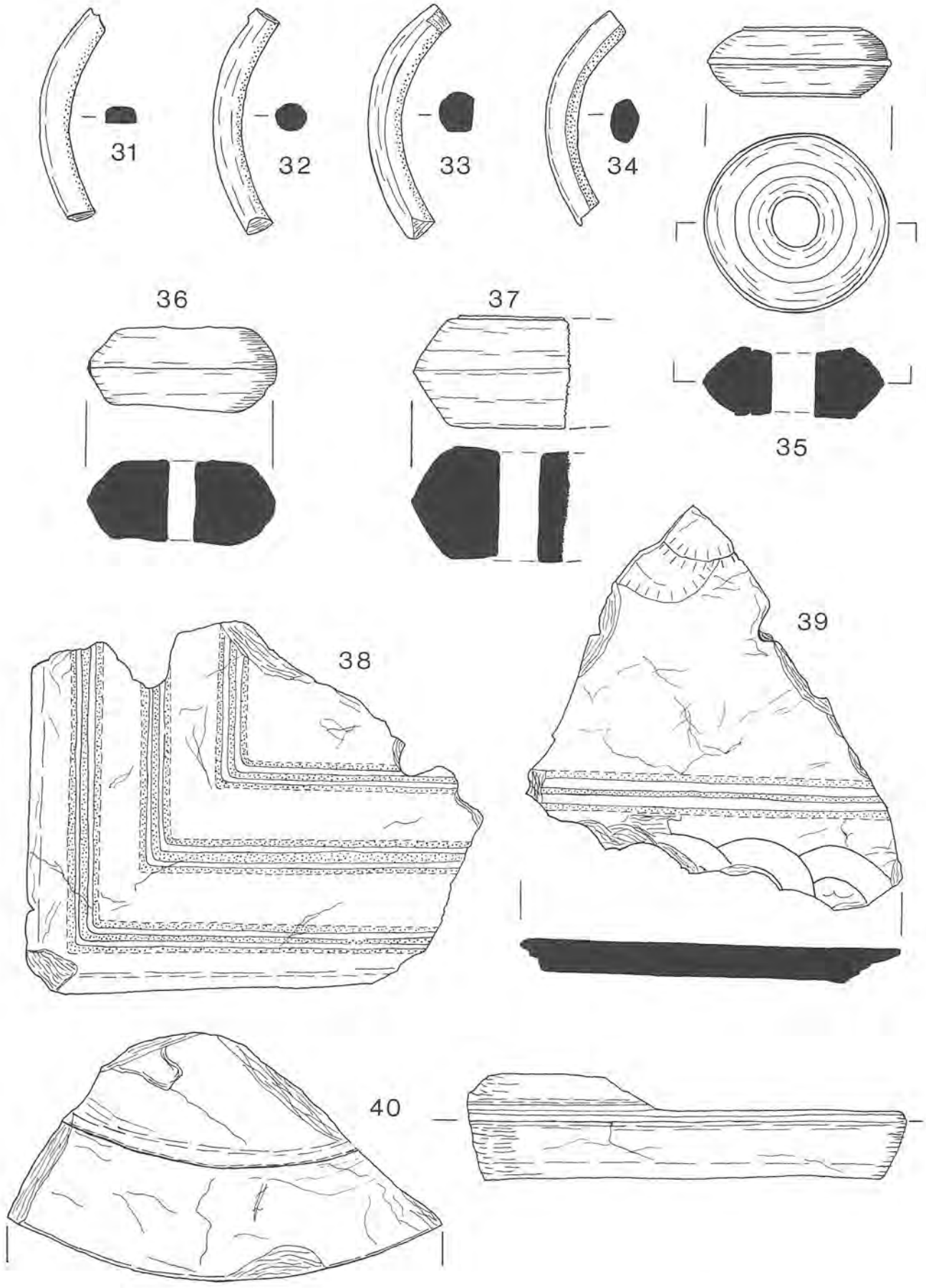

Figure 13: Dorchester Hospital Site C: The shale, nos. 31-40, at life-size.

the objects. Pewter bells were were evidently carried by Canterbury pilgrims (London Museum Medieval Catalogue p.257-8 pl.LXVI, 7); a crescent shaped ship is depicted as the normal Pilgrim badge of Our Lady of Boulogne (cf London Museum Medieval Catalogue p.258 and pl.LXXI, 40 and 41) but it is unlikely that the Dorchester amulet can be one of these, nor need either be a Pilgrim Badge as such.

Buckles All fifteenth century.

1893.2.25 M 123
Spectacle-Buckle with floral-motif (rosette) in the centre of each loop. Pin missing. Length 43mm.

1893.2.23 M 121
Spectacle-Buckle with cast vegetal ornament along the loops. Length 30mm.
London Museum Medieval Catalogue p.279 inv. no.A 12258, pl.LXXVII, 10.

1893.2.23 M 121
Small Spectacle-Buckle, plain with pin. Length 20mm. Date uncertain - probably Roman.

30A 1893.2.17 M 251
Small claw-hammer, circular face with groove behind. In the tain a v-slot (i.e. claw). Length 53mm. Central piercing.
This seems to be a metalworker's (or perhaps a leatherworker's) hammer for fine work. There is unfortunately no clear indication of date but a small bronze claw-hammer is recorded from the Roman times - Fort of Kongen, Germany (Mettler 1907, p.32 no.35, pl.V, 7).
A small iron hammer from Maiden Castle was almost certainly worn as an amulet, but if it was used at all, it must have been by a craftsman in the minor arts (Wheeler 1943, p.286 no.12, fig.95).
The Roman objects include a most intereesting brooch, clearly not from a major workshop; it is tempting but not provable to see the hammer being used in such a context. Craftmanship of another sort - the laying out of manuscripts in a Christian scriptorium - is suggested by the compasses.

		27BC-AD41	41-68	69-96	96-117	117-138	138-161	161-180	180-192	192-222	222-238	238-259	ILLEGIBLE 2ND-3RD	259-275	275-294	294-317	317-330	330-348	348-364	364-378	378-388	388-402	ILLEGIBLE 4TH	ILLEGIBLE 3RD-4TH	
		1	2	3	4	5	6	7a	7b	8	9a	9b		10	11	12	13a	13b	14	15a	15b	16		3-4	Total
Trench 1																									
2	topsoil													1					2	1					4
6	topsoil												1	1	1		2	2	3			12			22
11	topsoil													1							1	7			9
12	topsoil																1			4	1	6			12
14	topsoil																	1			1	9	2		13
17	rubble												1												1
18	rubble																						1		1
19	rubble																		1			2			3
20	robbed oven																	11		2		2			15
22	rubble														1										1
23	rubble													1	3		2	1	3	9	1	71	35		126
26	rubble																		1	1					2
29	oven 4													1								1			2
35	oven 4													2					3			9			14
39	rubble																					1			1
42	oven 4														1	3	3	5	9	12	4	85	17	4	143
43	Pit 5																1		1	1		1	1		5
46	orange clay													1			1	1	3	2		26	13	1	48
47	over wall footings																			1	1	4			6
54	orange clay																					1			1
57	rubble																			3		6	1		10
58	post-hole																					4			4
	unstrat.																		1	2		1			4
Trench 2																									
9	topsoil							1									1								2
14	rubble														2										2
29	oven 2 rakings													1											1
Trench 3																									
3	topsoil												1		1							4	2		8
4	rubble											1			1										2
5	rubble														1										1
8	Pit 2													1											1
13	Pit 2				1																				1
14	spread	1A																							1
15	Pit 3													1								1			2
37	spread													1											1
53	Pit 2														2									1	3
Total		1A			1			1				1	3	12	13	3	11	21	27	38	9	253	72	6	472

The coins from Dorchester Hospital Site C. Divisions as Reece 1972.

In late Roman times we have another piece of 'Vermond' style metalwork. Tempting as it is to include a simple clasp ornamented with concentric circles in this late Roman horizon, it is probably middle Saxon.
The Medieval objects all belong to the end of the Middle Ages and include pewter amulets and a finger ring.

The Slag

by Justine Bayley

Slag was recovered from a number of contexts on site, many of them disturbed. A total of about 2 kg of slag was submitted for examination (AM Lab. Report 4806). The most significant contexts producing slag were from the fills of Ovens 1, 3, and 5 (2/38, 2/26, and 1/20), and feature 2/41 in Building 1; the gully 2/31; and Pits 3 and 6 (3/15, 1/43).

Almost all the slag was smithing slag, produced in a blacksmith's hearth. There was also a small amount of fuel ash slag, which forms from the reaction of ash with silica-rich material such as clay at high temperatures; this was almost certainly a by-product of smithing. The small overall quantity of slag suggests that metal-working was being carried out on or near the site but not actually in the excavated area. A smithy would be expected to produce far larger concentrations of slag; what is present here represents the normal background level of this very durable material which is usually found on

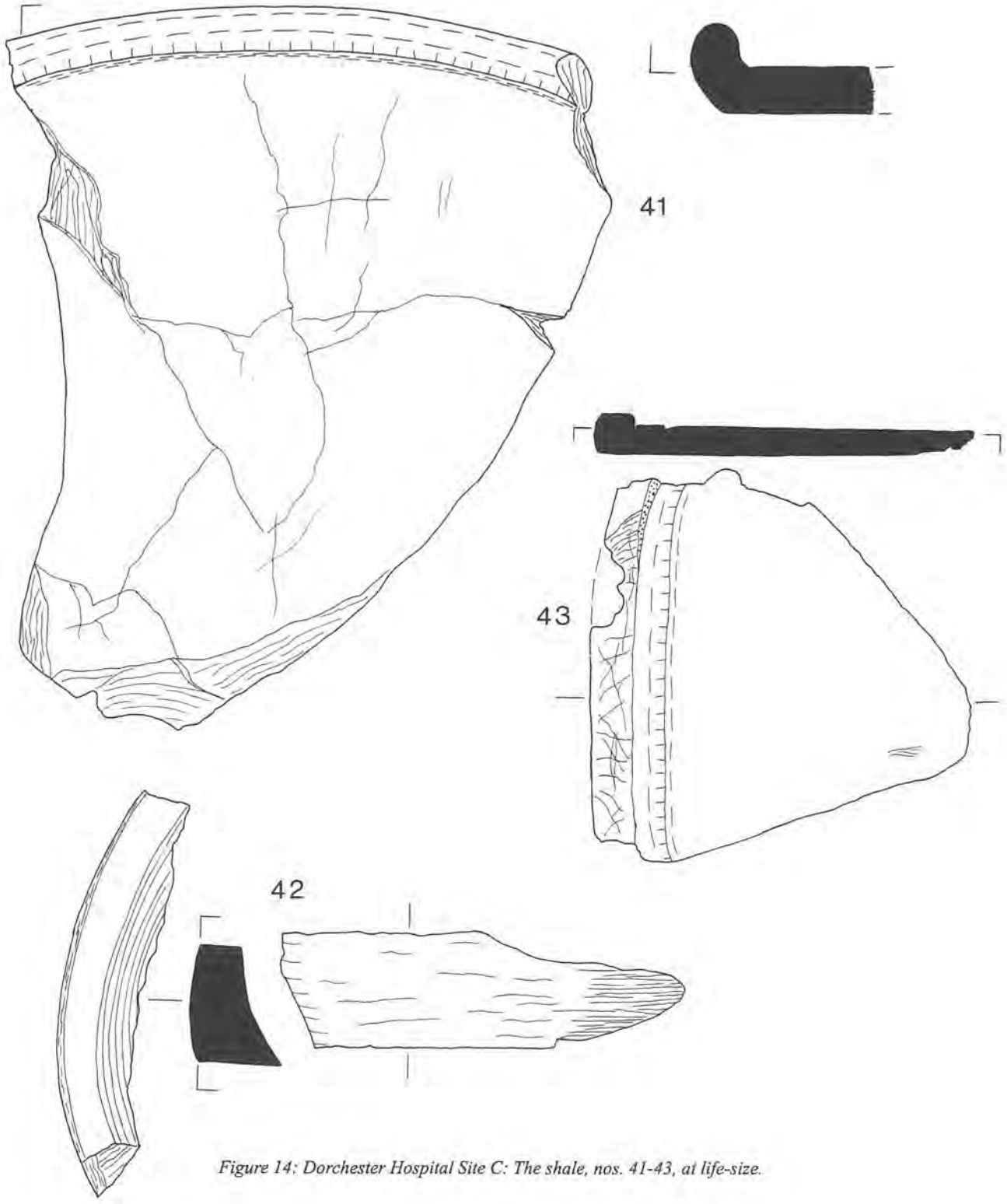

Figure 14: Dorchester Hospital Site C: The shale, nos. 41-43, at life-size.

every occupation site. The presence of slag in the fill of the ovens isprobablyfortuitous.

The Shale
by Peter S. Bellamy & Jo Draper

There were seventeen Kimmeridge shale objects recovered from the excavation, all came from residual contexts. All were fragments of finished objects and no manufacturing waste was found.

Armlets: A total of six armlet fragments were found, four of these (Figure 13 nos. 31-4) came from the upper layer (3/15) of Pit 3 (Phase 5). The other two armlets (not illustrated) were similar to nos. 31 and 32; one was unstratified and the other was found in a disturbed layer (3/17) in Trench 3. None of the armlets was decorated and the manufacturing technique is uncertain

.

Spindle Whorls: Three spindle whorls were found (Figure 13 nos. 35-7),. Two of these were lathe-turned (nos. 35 and 37) and the other is of uncertain manufacture. One is decorated with a raised circumferate rib and a slight rib on both faces (Figure 13 no. 35). Similar decoration has been found on some of the shale spindle whorls from Greyhound Yard (Woodward *et al.* 1993, fig 78). No. 35 was found in the filling (2/26) of Oven 3 (Phase 4), No. 36 in the filling (1/42) of Oven 4 (Phase 4), and No. 37 in a post-medieval layer (1/12).

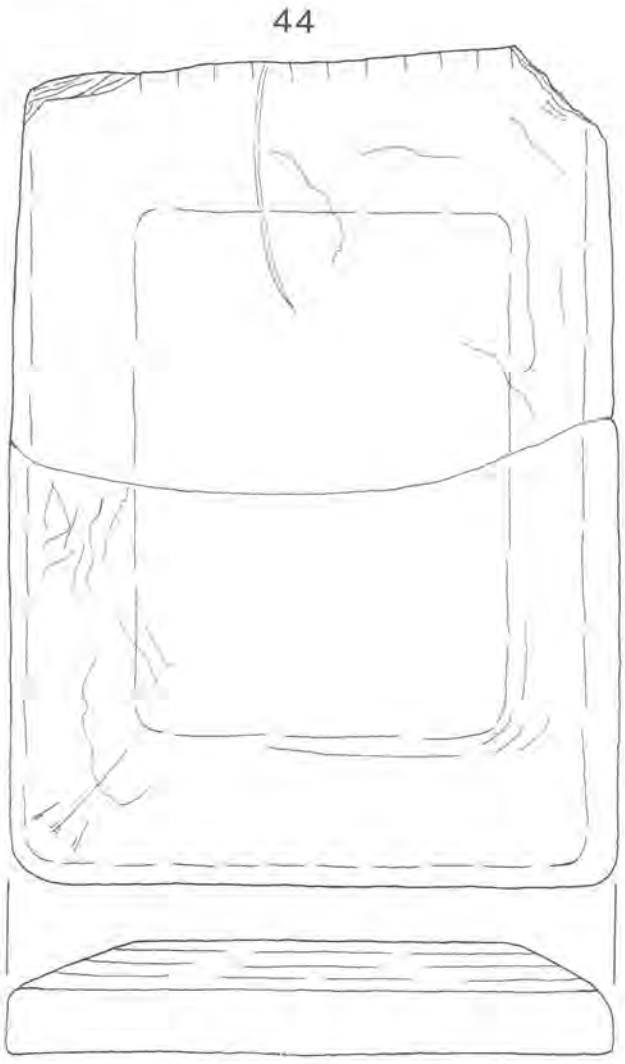

Figure 15: Dorchester Hospital Site C: The shale, no. 44, at life-size.

Vessels: There were two fragments of decorated rectangular tray (Figure 13 nos. 38-9). No. 38 had a bevelled edge and was 5 mm thick. It was found in the filling 1/64 of Ditch 1 (Phase 1). The other piece was not from the same tray and was found in rubble layer 3/5 (Phase 5). In addition to the rectangular trays, there were two fragments of platter rim (Figure 14 nos. 41 and 43), recovered from the topsoil (3/3) and from Pit 9 (3/85) respectively. Two fragments of ?bowls (Figure 13 no. 40, Figure 14 no. 42) were also found. One piece (no. 40) was from rubble layer 3/5, the other was from the filling (1/42) of oven 4.

Miscellaneous: A neatly-finished rectangular tablet (Figure 15 no. 44) of unknown function, but seemingly too thick for an inlay was found in rubble layer 1/23 (Phase 5). The only other shale artefact was a ragged-edged fragment with a flattish face, *c.*170 x 110 x 15 mm, (not illustrated) found in the topsoil.

The Flint
by Peter S. Bellamy

The flint was not systematically collected from this site, only four pieces were retained; one axe, and three flakes.

The bifacially flaked axe had a ground blade (Figure 16 no. 45), and was made from chalk flint with some traces of cortex remaining. The butt was broken and the blade had three alternate flakes removed, probably with a hard hammer, possibly in an attempt to resharpen it. If this is the case, then it was extremely crudely executed, effectively destroying the cutting edge. The crude nature of the presumed resharpening, possibly hints at reuse at a much later date. This implement was recovered from layer 1/9 above the remains of Building 1.

Stone
by Peter S. Bellamy & Jo Draper

Old Red Sandstone: A total of five whetstones and whetstone fragments were recovered (Figure 16, nos. 46-8), all were on flat pieces of Old Red Sandstone, probably from the Mendips. All were found in the area of Building 1: No. 46 was found in clay layer 1/46 (Phase 4); No. 47 was found in Oven 4 (1/42, Phase 4) ; No. 48 was from Oven 5 (1/38, Phase 4); and two other fragments (not illustrated) were found in layers 1/20 (Oven 5, Phase 4) and 1/23 (Phase 5).

Chalk: A single perforated chalk weight (Figure 16 no. 50) was recovered from rubble layer 3/6.

Stone Building Material
Limestone: Large quantities of limestone roof-tile fragments were found during the excavations in the upper fills of features and in the rubble layers (Phase 5). This material was not kept. In addition a small quantity of large limestone tesserae (*c.* 29 mm square and 14 mm thick) were found in the topsoil (3/2).

Purbeck Marble: Two pieces of Purbeck marble were found. One piece of architectural moulding (Figure 16 no. 49) was found in rubble layer 3/7 (phase 5). The stone is notably lighter and less green in colour than is usual for Purbeck marble and is possibly weathered, although the mouldings are very crisp. Mouldings of Purbeck marble do not seem to have been found previously in Dorchester, though they are known from many other Roman towns (Beavis 1970, 202). This piece doubtless comes from the town house imperfectly investigated in the 1880's just to the north of the excavations.

The other piece was a small rectangular slab, 90 x 40 mm across and 32 mm thick, with one very smooth face (not illustrated). This piece is probably part of a floor inlay, although it is of the same thickness as many slabs used for inscriptions (Beavis 1970, 196-7). Similar pieces were recovered from the Greyhound Yard excavations, where they were interpreted as decorative flooring

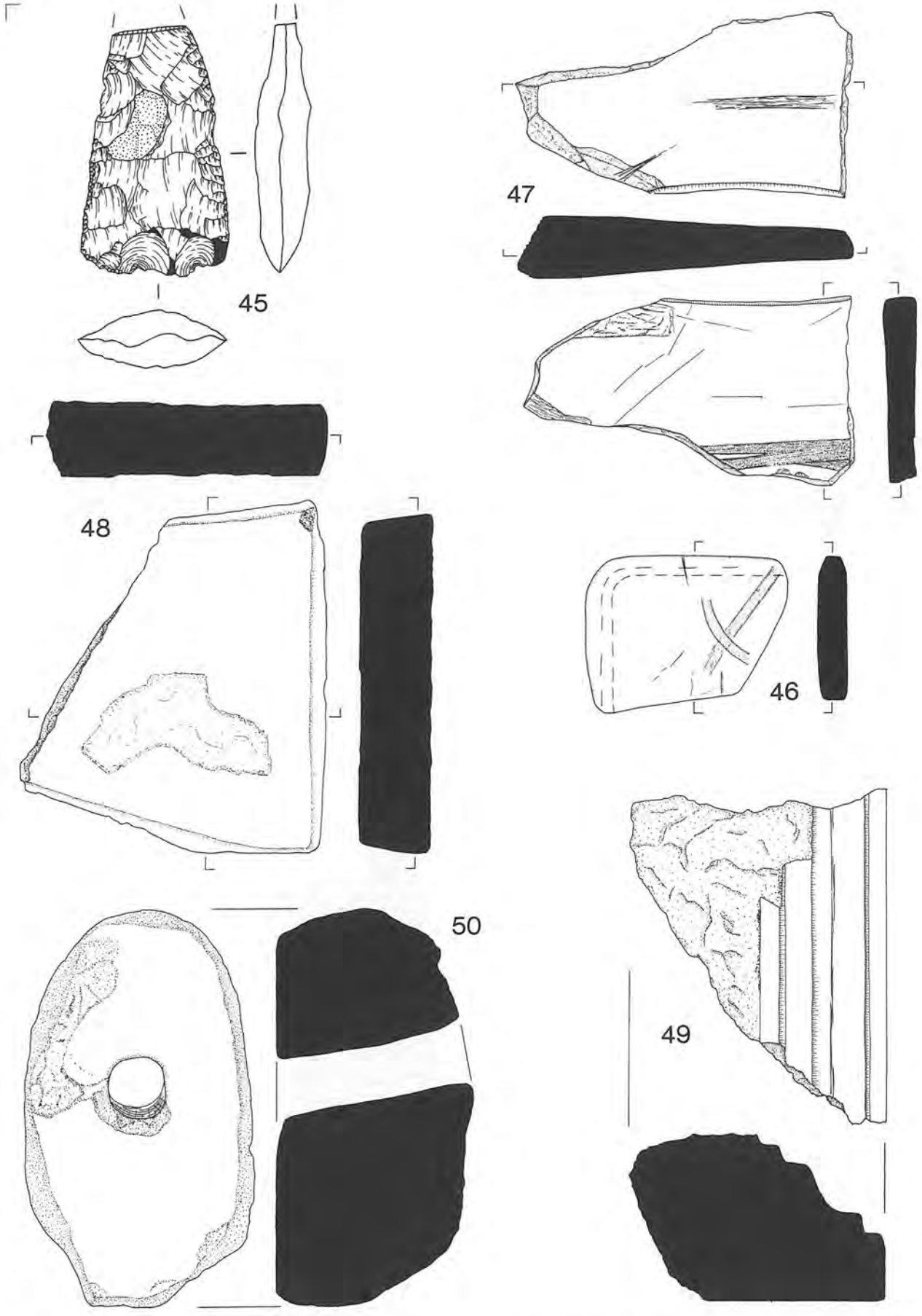

Figure 16: Dorchester Hospital Site C: Stone axe, no. 45, whetstones, nos. 46-48, Purbeck marble no. 49, chalk no. 50, all at half life-size.

material (Bellamy in Woodward *et al*, 1993, 171).

Worked Bone
by Jo Draper

Pins: One complete pin and three large fragments of pin (Figure 17 nos 51-4) were found together with some other small fragments of pin shaft (not illustrated). Nos. 51 and 52 were found in Pit 4 (3/31, Phase 4) and Nos. 53 and 54 were found in Pit 3 (3/15, Phase 4). The smaller fragments come from Pits 3 and 5 (3/34, 3/44, Phase 4) and the topsoil (3/3).

Miscellaneous: A large ridged handle (figure 17 no. 55) was found in the disturbed rubble layer 1/23, and a turned hollow object with screw fittings at either end (Figure 17 no. 56) was found in the topsoil. In addition there were several post- medieval bone objects, a pear-shaped handle and two buttons with a single perforation, found in the topsoil (not illustrated).

Tile
by Jo Draper

Ceramic tile, mainly roof tile, including both tegula and imbrex was recovered from the site. The majority of this was from the Phase 5 rubble spread and from the 19th century garden soils. Some pieces were also found in the filling of Ovens 4 and 5 and in Pit 1. Much of this tile was burnt, some so burnt that it was first taken to be slag or lava. Ditch 1 (layer 1/64) produced two tile pieces, one burnt. This burnt fragment had burnt mortar adhering to it suggesting that it may have come from a building which had been burnt down or had been burnt after demolition. One small piece of a combed box tile was found in the topsoil.

Two fragments of antefix were found. Both of these pieces could have come from the same antefix and are from the same type found elsewhere in Dorchester (RCHM 1970, 538). More complete examples have been found recently at Greyhound Yard (Bellamy 1993, figure 96), and Charles Street (Davies and Farwell 1989). One piece (Figure 17, no. 57) is part of the 'crest' above the head and was found in clay layer 1/36 in Room 1 of Building 1 (Phase 4). The other is part of the 'beard', and was found in layer 1/55 of Pit 10 (Phase 1).

Wall Plaster
Some painted wall-plaster was found during the excavation, both from the area of Building 1 and from the northern end of Trench 3. None of this wall-plaster was found *in situ*, most coming from the upper fillings of Phase 4 features and from the Phase 5 rubble spread.

In the area of Building 1, red-painted plaster was found in a line parallel to, and above the eastern cross wall (1/24) and in the rubble spread (1/12) over Room 2. In the rubble spread above Oven 6 (1/39) fragments of red- painted, together with black and white painted, and brown, red and green painted plaster were recovered. The rubble within Oven 1 (2/39), Oven 3 (2/26), Oven 4 (1/35), and Oven 5 (1/67) also contained painted wall-plaster.

In Trench 3, painted wall-plaster was found in the top of Pits 2, 3, and 4 (3/8, 3/40, 3/35, and 3/31) and in the rubble spread at the northern end of the trench (3/4 and 3/6). Above the wall footings 3/82 which cross the middle of Trench 3 was a linear spread of red and yellow painted plaster (3/10).

It is not clear which buildings this painted plaster belonged to. All of the surviving wall footings have some wall plaster debris in the near vicinity, but the residual nature of these deposits makes it difficult to determine whether the plaster was directly related to the walls. Certainly the general character of Building 1 does not suggest that it was likely to have had painted walls. It is possible that some plaster belonged to Building 2, but not enough evidence exists to be certain of this. It is possible that the painted plaster belonged to one of the buildings discovered in Somerleigh Court, to the north of the excavations, which seem to have been of a higher status (RCHM 1970, 561-2).

The Other Pottery
by Jo Draper

Iron Age

Three small, heavily flint-tempered sherds were found in a small pit in the

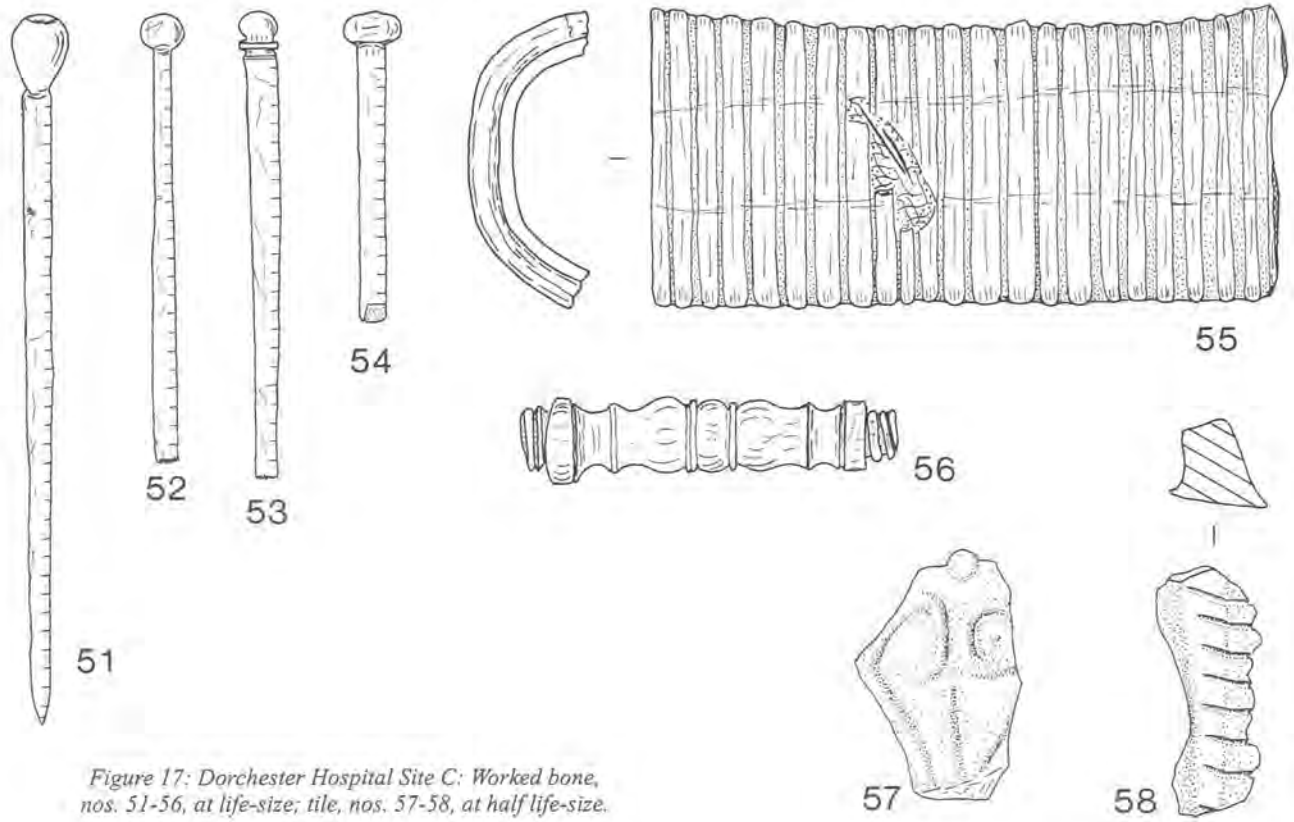

Figure 17: Dorchester Hospital Site C: Worked bone, nos. 51-56, at life-size; tile, nos. 57-58, at half life-size.

floor of Building 1 (1/61) and date from the Earlier Iron Age (Lisa Brown pers. comm.). The pit was clearly Roman and the pottery residual. No other artefacts of this date were found.

Roman

Much of the pottery from the site was found in the disturbed topsoil levels, and some of it cannot currently be located including the Samian. Only the pottery from the early Roman features and some intrinsically interesting material has been illustrated here. More drawings and text will be found in the archive.

The WA references below are to Woodward, Davies and Graham 1993.

Phase 1

Ditch 1 1/64

1 Mortaria: fine pale terracotta fabric witha few angular grits surviving.

2 Flagon: plain terracotta fabric with some whitish slip surviving (see WA type 407, pp.279-281), mid 1st - early 2nd century A.D.

Black-burnished ware

3 Maiden Castle War Cemetery type bowl, WA type 15, 1st century B.C. to late 1st/early 2nd century A.D.

4 Bowl: as WA type 16, date range as no.3.

5 Bead rim.

6 Jar with upright rim.

7, 8 & 9 Lid-seated jars.

10 Huge jar, presumably for storage.

11, 12 & 13 Bead rims.

14 similar to no.6

15, 16 & 17 Flat and ring bases, no.16 red (oxidises) and burnish uncertain.

Not illustrated: four others as no.10 but smaller. 2 *c.* 140mm, 1 *c.* 120mm diameter: another base as no.17 but 60mm diameter.

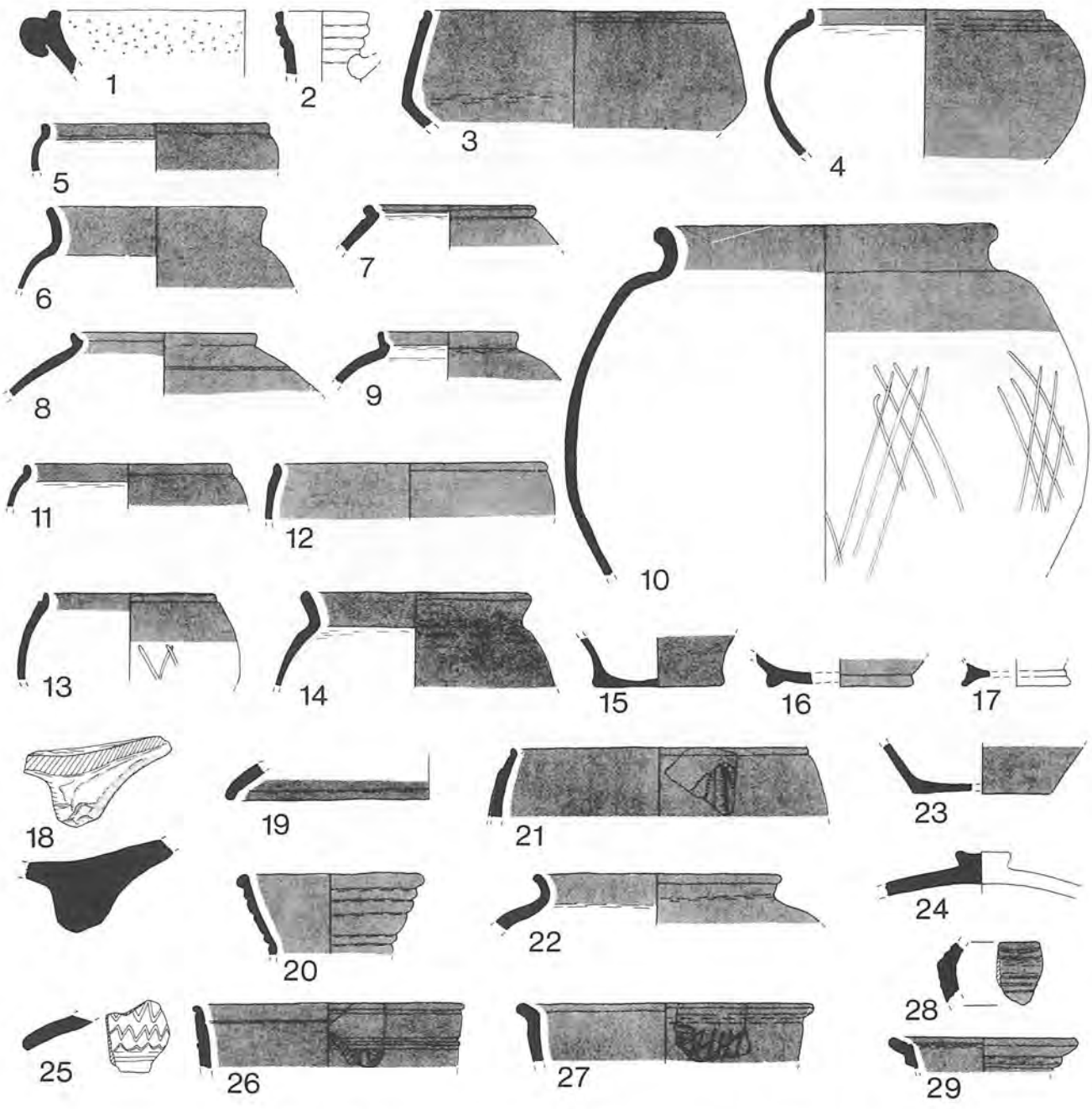

Figure 18: Dorchester Hospital Site C: The pottery, at quarter life-size.

Ditch 1 1/69

18 Foot, presumably from an amphora. Greyish buff surfaces and fabric, plentiful small rounded black and white inclusions.

Black-burnished ware

19 Lid

20 Flagon, shape as no.2, but here in Black-burnished ware.

21 as no.3, but with the characteristic 'stitched' fins.

22 & 23 Jars.

Not illustrated: two jars as no.6, one poorly burnished externally, *c.* 130 and 135mm diameter.

Detailed discussion of the pottery from Ditch 1 is impossible in the absence of the samian, but the coarsewares are obviously early ,with characteristic upright rim jars and Maiden Castle War Cemetery bowls. The shapes are comparable to those in Key Group 14 from Hengistbury Head (Brown in Cunliffe 1987, fig.212) which dates from the Roman Conquest. However the Dorchester group contains finewares not found at Hengistbury (mortaria no.1, flagon no.2 and possible amphora no.18), and Hengistbury has earlier forms not found here - carinated flaring bowls, high pedestal bases, and the large flat-rimmed possibly storage vessels.

Probably the Dorchester group is therefore a little later than the Hengistbury one, perhaps 50s or 60s A.D., the date suggested by the two brooches (nos.1 and 2) from the ditch which are of *c.* 50-60 A.D.

Pit 11

24 Lid: possibly Black-burnished ware, but seems coarser and with poor un-burnished irregular surfaces.

Black-burnished ware

25 Lid decorated internally with burnished lines.

26 & 27 Bowls with burnished decoration externally.

28 Elaborate carination.

29 Lid-seated.

Not illustrated: bead rim like no.13; base as no.23; and a ring base 50mm diameter.

Pits 10, 12 and 13 contain pottery similar to that illustrated from Pit 11, and would all seem to be a little later than Ditch 1. They include flange rims, as no.27, which are not found in Ditch 1. By A.D. 80 rather more developed dishes are found at Exeter (e.g. Bidwell 1979, fig.64 no.116) whereas the earlier phase there, dating from *c.* 60-75 do not contain them. These Dorchester pits could date from the 70s A.D. but again the absence of the samian makes dating difficult.

Pit 1

The ash layer in Pit 1 (2/23, 25 and 28) contains a small amount of black-burnished ware including plain bowls as WA type 20, dishes as WA type 22, and Rhenish colour-coated sherds. Brooch No.3, early 2nd century A.D. also came from the ash, confirming the date suggested by the property.

The upper layer of Pit 1 (2/21) has a fragment of New Forest indented beaker as Fulford 1975 type 27, with white painted motif as *ibid.* fig.26 no.21. This suggests a date of after A.D. 270. Another sherd of this type was found in the gully leading into Pit 1 (2/31).

Pit 2

This large group (3/24, 25, 53 & 57) contains Black-burnished jars as WA type 3 (late 3rd century onwards), dog-dishes as WA type 25, bead-rim jars, and New Forest beakers as Fulford 1975 type 27. There are also two coins of 275-94, and another of 260-70. The pottery fits into this late third century date.

Pit 3

The upper layer of this pit (3/15) contains late 4th century coins, but it seems likely that these are from the fill of slumping and that the pit is later 3rd or early 4th century.

Pit 5

This pit contains material similar to Pit 2, but also has a red slipped New Forest bowl as Fulford type 63.3, *c.*280-400. 3/42,44,45.

Pits 7, 8 and 9

Only small parts of these pits were excavated as they mostly lay outside the trench. they contained small amounts of pottery (including Oxfordshire colour-coats) which date from the 2nd or 3rd century. Pit 7 3/66: Pit 8 3/51: Pit 9 3/85

Oven 6 1/40

30 Beaker: probably Oxfordshire: shape as Young 1977 type C22.1, 270-400, decoration not exactly paralleled.

Pit 14 3/63

31 Black-burnished ware dish, unusual rather coarse decoration externally, likem that on no.32.

Not illustrated: huge pie dish like no.35 and body sherds of a huge jar (400m diameter body) with no base or rim sherds present. Only Black-burnished ware was found, and the pit probably dates from the later 4th century.

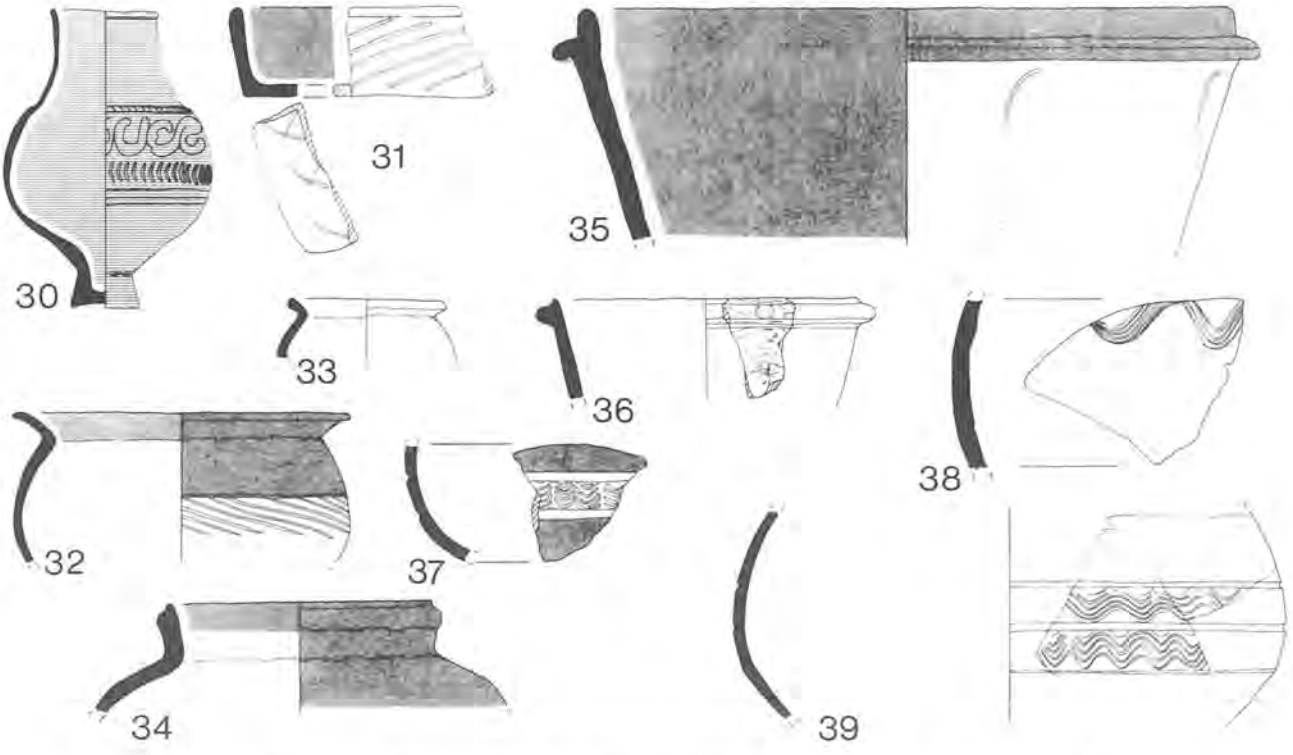

Figure 19: Dorchester Hospital Site C: The pottery, at quarter life-size.Dorchester Hospital Site C

Pit 6 1/52, 1/43, 3/35

This contains Black-burnished ware jars as WA type 18, dishes as type 25 and and an Oxfordshire colour-coated bowl with white painted decoration on the rim as Young 1977, C 50.1 *c.* 325-400. The pit is late 4th century.

Pit 4 3/35

Similar material to Pit 6, including New Forest indented beaker and a Black-burnished ware double-handled jar as WA fig.151 sherds, but not the Oxfordshire. The gully around the pit (3/23) contains a sherd like no.32.

The Rubbles

The rubbles contained large quantities of pottery, mostly Black-burnished ware with some New Forest and Oxfordshire colour-coats.

The Black-burnished ware jars were of the extremely flaring rim type (WA fig.148, p.283 no.292), and there were many plain dishes (WA type 2c). Flanged bowls were frequent. A few double or single handled jars with bead rims (WA fig.151, p.276 no.365) were present. A few of the more unusual vessels are listed below.

Black-burnished ware

32 Jar with single burnish, WA type 18, late Roman or even later. 2/27

33 Small jar in grey, granite tempered fabric (see Exeter, Bidwell 1979, 191-2), sandy with distinct plates of black mica. This has been found in the latest levels at Wollaston House, Dorchester (Andrews forthcoming) and a much larger jar comes from Alington Avenue WA type 68. 1/23

34 Unusual neck and rim, and perhaps oval. Fabric rather coarse. 1/23.33 & 42

35 Huge flanged dish. Another was found in Pit 5. 3/7

36 Very rough and wildly over-fired or burnt.

37 Roughly finished, harsh feeling surfaces but neat incised (combed) decoration. 3/3, topsoil. Another (not illustrated) from Pit 2.

38 Terracotta, with combed decoration. 1/42

39 Combed decoration, probably Black-burnished ware. 2/27
Combed decoration is uncommon.

Clay pipes

by Elizabeth Watkins

Clay pipes were found in all topsoils and rubble 1/13, including three of Oswald's (1961) type 9a, *c.* 1680-1730; one Oswald type 5b; one impressed 'GEORGE WEBB' on the base (worked in Chard, Somerset) *c.* 1640-70, ; one Oswald type 8 with 'BS' on the junction of bowl and stem, *c.* 1680-1710, common in Dorchester but maker not identified; one *c.* 1820-40 witha small shield on both sides of the spur; one Oswald type 12, *c.* 1820-70; one with fluted bowl with 'W' 'O' on either side of the spur, probably William Dowdall of Poole (*P.O. Directory* 1846-75, *Kelly's Directory* 1880). One fluted pipe, each flute with a dot over just below the rim, large square spur with 'G' one side and 'H' the other, but both in reverse i.e. mirror writing. Common in Dorset the right way round, perhaps George Harding, Bell Street, Southampton (*P.O. Directories 1846, 1859 and 1871).*

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Excavations at Hamworthy in 1974

KEITH JARVIS
Poole Museum Service
with contributions by
M.A.B. Lyne, Sue Anderson and G. Dannell

Introduction

Hamworthy is situated at the tip of a low-lying gravel promontory extending into Poole harbour. The existence of a site here has been known since the work of Mr H.P.Smith (Smith 1930), who located Iron-Age and Roman occupation. This Roman evidence included military period pottery, a Roman road and a kiln, and has been reviewed by the Royal Commission in RCHM 1970, 2, part 3, 603-4).

The excavations and finds discussed here are from a small excavation which was preceded by several trial excavations. The excavations were conducted by Mr G. Dowdell for Poole Museums in 1974 in advance of industrial development and were about 60m away from the H.P. Smith excavations.

The Excavations and Finds evidence (Fig.1; Pls 1-2)

The excavations in February were in the area of SZ 00309048 and consisted of five trial-holes approximately 2.4m long by 1.5m wide. Two were abandoned when modern reclamation was indicated and the remaining three trenches were excavated to about 2m and revealed stratigraphy generally similar to the section illustrated. The excavator located a layer of broken oyster shell associated with a few sherds of Roman grey-wares. This was interpreted as a late Roman shoreline 1.66m below the modern average tide level and is roughly equivalent to -1.0m Newlyn Datum. The site archive, as collated in 1976, contained some evidence which was broadly consistent with this inference, and the conclusion is similar to evidence from Brownsea Island (Jarvis 1992). The present author has emphasised the importance of sites, such as Hamworthy, on north-facing shorelines as key sites for obtaining data on sea level change in Poole Harbour

In summer 1974, topsoil was removed by machine to a depth of *c.*1m from an area about 13m by 10m prior to excavation. Most of the excavation finds are designated either general clearance (after machining) or layer 1. Both contain large quantities of pottery and briquetage. The finds from the general clearance also include small quantities of post-medieval pottery. The finds from layer 1 are, however, invariably of Iron Age/ Roman date except for 1kg of slate fragments which may indicate an intrusive post-medieval feature. The finds designated layer 1 seem to correspond to contexts layers 3-6 on the section.

Analysis of the finds from these layers revealed evidence for a Late Iron Age/Roman salt and pottery industry. The excavation also revealed a late Roman cemetery.

Period 1 (c.100 BC - AD200)

Apart from two scrapers of Neolithic/Early Bronze Age date, there was no evidence of occupation until the late Iron Age. There was no stratigraphy datable to the Late Iron Age/Early Roman period. However, some of the pottery and briquetage from the finds designated general clearance and layer 1 are datable to this period and probably mainly to the 1st century AD.

Lyne's analysis of the pottery shows that 84% of the pottery is oxidised BB1 with 60.9% of the output as jars. Oxidised pottery is rarely found in quantity except on kiln sites and the figure is therefore an indication of a kiln site. The briquetage from 'Hobarrow pans' also probably dates to this period. These are suggested to be an Iron Age form that had probably ceased by the 3rd century.

Lyne has also concluded that the tabulated statistics suggest pottery production alongside salt production using mainly 'Hobarrow pans'. It seems probable that the industry at Hamworthy expanded to supply the market created by the garrison at Lake *c.* AD 45-65 and continued there afterwards.

Plate 1. General view of excavation looking north-east. 2m scale.

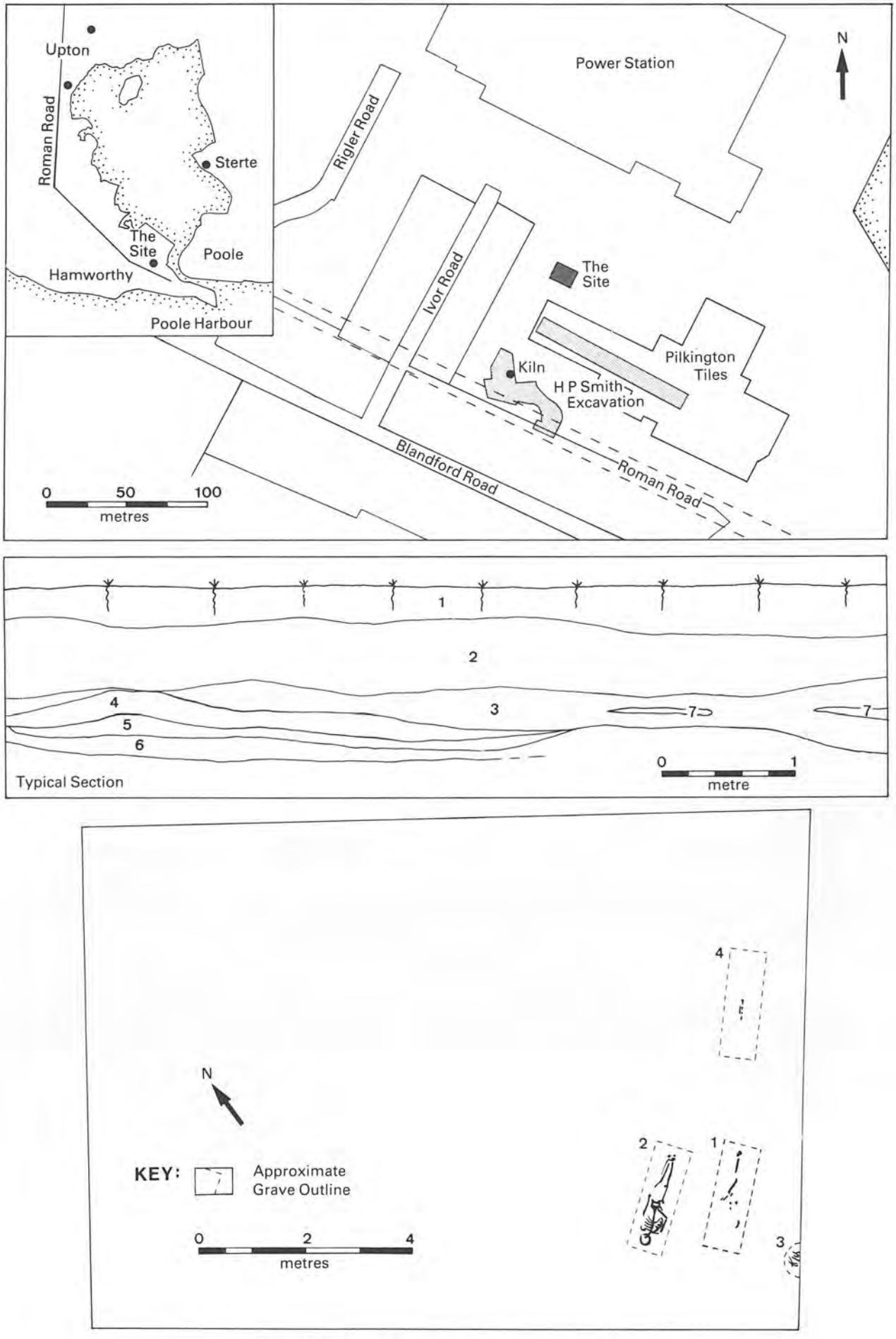

Figure 1. Location, typical section and excavation plan.

Period 2 (3rd-Century Occupation)
Most of the finds are again from those designated general clearance and layer 1. Statistical analysis by Lyne of material attributed to the 3rd century (see the pottery report) shows that the proportion of oxidised and reduced pottery is now almost equal. However, the assemblage contained an exceptionally high proportion of large jars, higher than similar kiln sites. It was concluded that pottery production was still taking place, due to the oxidised pottery present, and that the salt production industry used large jars. The salt industry also used the 'Fitzworth troughs' as *c.*40kg of briquetage of this type was recovered from the site and more briquetage was present but was not excavated. These troughs seem to be a Roman development and it is presumed that 'Fitzworth troughs' had replaced the 'Hobarrow pans' by this time (see briquetage report).

Other Industrial Evidence (Periods 1 and 2)
One shale bowl core suggested some shale working nearby but as the evidence is slight, and no lathe cores are present, it was probably on a small scale. A few fragments of iron slag also suggested iron working on a minor scale. The shale and iron-working evidence is similar to that from H.P. Smith's excavations at Hamworthy (RCHM 1970, 2, part 3, 603) and evidence of this type occurs on most settlements of this period in the Poole area.

Period 3 The Cemetery
Three unsealed inhumations, all on the same alignment, were located at a depth of 1.1m below modern ground level cut into natural gravel. One inhumation (grave 2) was almost complete but the other graves 1 and 4 had been disturbed by cultivation or other activity.

Grave 1.
Extended inhumation. Possible female in middle age. Extent of survival shown on plan. Analysis by Sue Anderson suggests the most likely reconstruction of the burial position is supine with knees slightly flexed to the right with right arm extended and left arm on abdomen. General alignment north-east/south-west(220 degrees). Head to south-west. Dark brown clay soil.

Grave 2.
Extended inhumation of young male. Right arm on abdomen. Left arm extended. Height 1.76m. General alignment north-east/south-west (230 degrees). Head to south-west. Almost all skeleton survived. Hobnails/studs were found at the feet and suggested boots. Some possible coffin nails were also found. Dark brown clay soil.

Grave 3.
Animal burial near the south-east edge of the excavation. Described in archive as sheep or dog. No conclusive evidence of date and presumed modern. Dark brown clay soil.

Grave 4.
Adult, sex not known. Extent of survival shown on plan. Alignment north-east/south-west. Head presumed south-west. One possible coffin nail found.

There is some direct dating evidence from the graves consisting of small groups of 3rd-century pottery. This is unlikely to be a reliable indication of date and must be suspected to be residual. Indirect evidence of the date of the cemetery may be indicated by several large joining sherds of a New Forest red colour-coated bowl. These are usually datable to AD350-400 although some early 4th-century vessels are known. This vessel is the only 4th-century pottery from the excavation and may indicate displaced grave goods. This interpretation is supported by the fact that the vessel is a fineware and that the sherd sizes are consistent with damaged grave goods. A 4th-century date for the cemetery is also consistent with the likelihood that there was a time lapse between the 3rd-century industrial occupation of the site and its use as a cemetery.

The three graves are not an adequate basis on which to base a discussion of the cemetery but if they are typical it suggests that the main features of the cemetery include fairly regularly laid out

Plate 2. Graves 1 and 2 looking south-west. 2m scale.

graves with heads to the south west. Grave goods may be present if the interpretation of the late 4th-century bowl is correct. One burial seems to have footwear (No.2) whilst two burials (Nos 2,4) may have had coffins. The evidence of alignment, footwear and grave goods is consistent with a small rural non-Christian late 4th-century Roman cemetery although a wider date range is possible on the limited evidence available. A cemetery of a rural settlement of similar date but of a different type has been excavated at Catsgore, Somerset (Leech 1981). The Hamworthy graves can certainly be contrasted with the orientated Roman cemeteries of south-west England and the analysis of larger urban and rural cemeteries from elsewhere containing groups with similar characteristics may eventually make further comment on the Hamworthy graves possible.

The cemetery has few similarities with either the nearby 7th-century site at Ulwell (Cox 1988) or Christian cemeteries of the medieval period. Nevertheless, if the fineware vessel was old when buried, then a post-Roman date for the cemetery is possible. Radiocarbon dating of the human bone from the graves could investigate this possibility.

Discussion of Hamworthy

The present excavation has done much to indicate the nature of the occupation at Hamworthy. The excavations by H.P. Smith and subsequent analysis of that assemblage suggested a Late Iron-age occupation associated with imported amphora and other pottery dated *c.*100-50 BC, followed by a Roman settlement from the 1st to the 4th century. Some early Roman military activity was suggested by imported pottery, the road itself and the Hamworthy mill.

The present excavation has confirmed this general sequence and clarified the nature of the occupation during most of the Roman period. Little new evidence of the Iron Age occupation was forthcoming and this is surprising in view of occupation found nearby (Jarvis 1982). Relatively little evidence of early military activity was present except to confirm that the evidence is not of a structural nature. The cemetery suggests a 4th-century settlement nearby. A review of the Hamworthy H.P. Smith finds and recent small-scale work is in preparation and will examine the indications of settlement shift and the implications of sea-level change.

Brief Layer Descriptions (Fig.1)

1 Modern gravel and building debris.
2 Dark brown clay /loam.
3 light brown clay/loam.
4 Burnt red clay.
5 Light brown clay.
6 Brown/black soil and charcoal.

THE FINDS

The Human Skeletons

by Sue Anderson

Condition

All the skeletons were in very poor condition. Most of the bones were fragmented, although a few sections of long bone from skeletons 1 and 2 (S1 and S2) had survived intact. Skeleton 2 was the most complete burial, but large areas of the body were effectively "missing" due to the high degree of fragmentation. Only the left side of S1 was preserved, and S4 was represented by fragments of the lower left leg. The surfaces of the bones of S1 were badly eroded.

Age and Sex

The remains represented one young male (S2), one possible female in middle age (S1), and an unsexable adult (S4). sex determination was based on bone size, since no other diagnostic criterion was available, and age was estimated from tooth wear. The use of both these methods is less certain when the population sample size is small.

Metrical and Morphological Analysis

Only one measurement was taken, the femoral head diameter of S2. This put the individual well into the male range for other populations of similar date.

No distinct genetic anomalies (non-metric traits) were observed, but the lower facets on the ankle bones (tali) of both skeletons 1 and 2 were unusual in that they were trapezoidal in shape. This facet can vary in shape between genetic groups, so it would be unwise to suggest that the two individuals were related on this evidence alone. A larger sample of the population would be necessary to establish whether this trait might indicate possible familial relationships.

Dental Analysis

Only a few teeth had survived from skeletons 1 and 2, and these are recorded in the archive catalogue. Some of the upper teeth of S1 were preserved in the maxillary bone, but the few remaining lower teeth of S2 had no corresponding alveolar bone.

The presence of dental decay (caries) and tartar (calculus) was noted in both individuals. Both conditions were more advanced in the younger individual (S2). It is possible, judging by the amount of decay in the molar of this man, that he also suffered an abscess around the root of the tooth.

The fact that both skeletons with surviving teeth showed signs of tooth decay might indicate a Romano-British rather than a later date for these burials, since the condition is more common during the Roman occupation than at any other period before the introduction of sugar. High rates of caries are associated with various factors, including poor oral hygiene, a diet rich in carbohydrates, and a high percentage of older individuals within the population. However, caries may also be caused by a genetic predisposition, and the possibility of a genetic link between these two individuals has already been noted.

Pathology

All fragments of bone were checked for signs of pathological lesions, but nothing definite was found. Two possible cases of osteochondritis dissecans were found on the big toe bones of two individuals (see archive catalogue, S2 and general clearance, for details), and one of these also had osteoarthritic lesions. Both conditions are the result of physical trauma to the joint and would have caused pain when walking.

The Roman Pottery (Fig.2)

by M.A.B.Lyne

The site produced considerable quantities of Roman pottery; nearly all of it BB1 and including 111 rim pieces. The great bulk of this material was effectively unstratified and designated general clearance and Layer 1 in Trench II. All the illustrated pottery was from these sources unless otherwise stated.

The BB1 pottery from the general clearance and Layer 1 was arbitrarily divided on the basis of forms into 1st-/2nd- and 3rd-century assemblages. These two groupings were then analysed according to vessel form and nature of firing, using the rim based Estimated Vessel Equivalent method (Orton 1975). There were no exclusively 2nd-century pottery forms, suggesting the possibility of a break in activity on the site.

The earlier pottery includes several forms paralleled at Hengistbury Head (Brown 1987), and Ower (Woodward 1987). Some of these are Durotrigian Iron Age ones, but may be post-Conquest in date, as the types present continued being made well into the Roman occupation (Bidwell 1977). The early non-local material consists of two abraded flakes from a Lyons ware rough-cast bowl, eight featureless chips from a white-ware flagon, two abraded amphora fragments and a north-Gaulish mortarium rim.

Table 1.

Condition	Jars EVES	Bowls	Dishes	Store jars	Lids	Total	%
1st/2nd Century.							
Oxidised	1.63	.49	.38	.05	.24	2.79	84.5
Blackened	.38	.13				.51	15.5
Total	2.01	.62	.38	.05	.24	3.30	
% Total	60.9	18.8	11.5	1.5	7.3		100
3rd century							
Oxidised	1.60	.17	.05	.10		1.92	55.8
Blackened	1.40		.12			1.52	44.2
Total	3.00	.17	.17	.10		3.44	
% total	87.2	4.9	4.9	3.0			100

Bowls and dishes are fairly well represented in the earlier material, although jars are the most significant class of vessel. The overwhelming bulk of BB1 sherds are oxidised honey-brown or orange. The predominance of such oxidised pottery on BB1 ware production sites, so different to the black, soot-soaked version marketed elsewhere by that industry, was first drawn attention to by Farrar (1976). He considered that two alternative explanations were possible; that the blackening process was a secondary one carried out on vessels which had survived a main oxidising firing, or was an integral part of the main firing operation; destroyed or not achieved due to procedural errors.

There is little chance of the oxidation being due to re-firing during salt-boiling operations on the site. Although quantities of briquetage indicate that salt production was taking place, the evaporation of brine in pottery vessels would not require any more heat than that generated in cooking. The condition of BB1 cooking-pot sherds, from occupation sites all over Britain, clearly indicates that such temperatures did not usually alter the black colouration. The 1st- and 2nd-century oxidised forms from Hamworthy also include lids and other vessel types, impractical for boiling brine in.

The 3rd-century pottery group differs from the earlier one in two major respects. Jars are overwhelmingly predominant, with bowls, dishes and storage jars scarcely registering. The second important feature is that, although oxidised sherds are still the most numerous, they are nearly equalled in quantity by blackened examples. The predominance of jars in this assemblage is considerably greater than that in other, contemporary, local pottery groups analysed by the author (Lyne forthcoming B). The assemblage from the 3rd-century Worgret Kiln 46 had jars making-up 63.5%; 23% less than at Hamworthy.

When we break-down jars according to their external rim diameters, it is clearly shown that the bulk of the 1st-/2nd-century examples, cluster around 140-160 mm. with just a few being more than 200 mm. in diameter. After *c.*AD200 the reverse is the case, with numerous large jars (59.9%) concentrated around 260 mm.

Table 2. Jars. EVE statistics for rim diameters.

E.R.D.	Indet. small	100	120	140	160	180	200	220	240	260	280	300	Indet. large
Oxidised	.15	.09	.05	29	.33	.24	.09	.33	.05				.01
Black	.15		.13	.10									
Total	.30	.09	.18	.39	.33	.24	.09	.33	.05				.01
%	15	5	9	19	16	12	5	16	3				1
3rd century													
Oxidised	.07			.08	.14	.12	.10	.15	.12	.41	.16	.03	.22
Black	.11		.15	.18	.24	.11		.10	.07	.12	.16	.16	
Total	.18		.15	.26	.38	.23	.10	.25	.19	.53	.32	.19	.22
%	6		5	9	13	8	3	8	6	18	11	6	7

Note % rounded to nearest figure.

The balance of vessel types and the average jar size in the earlier assemblage are what one might expect in the waste from normal pottery production. With most Romano-British wheel using pottery industries, the average cooking-pot rim diameter occurs between 140 and 180 mm. with just a few vessels being smaller or larger. This rule also seems to apply to many of the hand-built pottery industries although the average diameter tends to be less well-defined,(Lyne forthcoming A). At nearly all local sites, where rim diameter analysis has been carried out on pottery assemblages by the author, the bulk of the mainly BB1 jars cluster around the 160-180 mm. range (op. cit.).

The rim diameter pattern in the later jar group, with its emphasis on large vessels, is distinctly abnormal. Farrar,(1977), was of the opinion that BB1 jars were used alongside larger briquetage containers during the salt boiling process. The presence of all these large jars could be interpreted in this light, as could the increased presence of blackened vessels; suggesting that we are now dealing with use of finished pots by salt-workers, alongside reject, but usable, oxidised ones.

Apart from the large unstratified topsoil assemblage, there are three small pot groups from graves 2,3 and 4 in Trench II. They are too small for any form of meaningful analysis but, where forms are identifiable, consist exclusively of 3rd-century pottery.

There is one 4th-century vessel present in the ceramic material. This is a New Forest red colour-coated bowl of Fulford's Type 66.3 (1975) dated mainly to the period AD 350-400, although some early 4th-century examples are known from Portchester. There are several large joining fragments from this bowl; all unstratified in the general clearance pottery from Trench II. The vessel may have been derived from one of the otherwise undated burials found on the site.

Illustrated sherds

1. Small handmade jar with weak, upright rim. In fine black BB1 fabric. Latest Iron Age to *c.*AD60.
2. Large jar with simple, upright rim. In oxidised BB1 fabric. From large jar of counter-sunk handled type (Brown 1987.Ill.148. 2124). Latest Iron Age to *c.* AD60.
3. Jar in grey, sandy fabric with surface reddening. Mis-fired BB1 fabric. Late 1st-early 2nd century.
4. Jar in fine, black BB1 fabric with all-over exterior burnish. Latest Iron Age to late 1st century.
5. Flanged dish in oxidised BB1 fabric with burnished acute lattice decoration. Similar dishes to this and the two below appear in Exeter at the time of the construction of the basilica (Bidwell 1977.Fig.13.2.23-26 and 1979.Fig.65.149). *c.* AD80 -early 2nd century.
6. Similar but undecorated dish in coarse sanded, grey-fired BB1. *c.* AD 80-early 2nd century.
7. Similar dish in fine, oxidised BB1 fabric. *c.* AD80- Early 2nd century.
8. More developed flanged dish or bowl rim in fine, oxidised BB1 fabric. 2nd century to *c.* AD220.
9. Durotrigian bead-rimmed bowl in fine, oxidised BB1 fabric. Latest Iron Age to *c.* AD80.
10. Lid rim in fine, oxidised BB1 fabric with occasional shale inclusions. (Brown 1987.Ill.182.1055). 1st century.
11. Large, lid-seated bowl in fine, oxidised BB1 fabric. From bowl of Hengistbury Head Type BC 3.42 (Brown 1987.Ill.158).Latest Iron Age to *c.* AD70.
12. Everted jar rim with edge beading. In coarse, black BB1 fabric. Early 3rd century. Trench II.F10.
13. Large, everted jar rim in fine black BB1 fabric. Early 3rd century. general clearance
14. Everted jar rim in fine black BB1 fabric. 3rd century. Trench III. F3.
15. Everted jar rim in fine black BB1 fabric. 3rd century.
16. Large, everted jar rim in coarse oxidised BB1 fabric. 3rd century.
17. Incipient beaded-and-flanged bowl rim in fine, oxidised BB1 fabric. Gillam Type 43.(1976). *c.* AD200-270. Trench III.F2.
18. Rim from bowl of Gillam Type 44,(1976), in similar fabric. c.AD200-270. Trench III.F2.
19. Rim from similar vessel in similar fabric. *c.* AD200-270. Trench III F2.
20. Similar rim in similar fabric. *c.* AD200-270.
21. Straight-sided dish rim in fine, black BB1 fabric. 3rd/early 4th century.

Figure 2. Roman Pottery (Nos 1-23) and Briquetage (Nos 24-47). Scale 1/4. Fired clay sling shot (No.48). Scale 1/2.

22. Straight-sided dish rim in fine, black BB1 fabric with burnished steep arcading on the exterior. *c.* AD200-250.
23. New Forest red-colour-coated necked bowl of Fulford's type 66.3. *c.* AD300-400. Trench II. General Clearance.

The Briquetage (Fig.2)

by M.A.B. Lyne

The Hamworthy site yielded large amounts of salt boiling briquetage which, like the pottery, was designated general clearance and Layer 1 in Trench II. All drawn material is from the latter layer. This briquetage comes mainly from brine-boiling containers and their supports.

Brine-boiling containers.

This category can be further subdivided into 'Fitzworth' troughs and 'Hobarrow' pans, (Farrar 1975), with the 'Hobarrow' type being overwhelmingly predominant.

'Fitzworth' troughs.

Farrar describes these vessels as being constructed from hand-built barrel-shaped or cylindrical containers 0.40 to 0.45m. in diameter and of unknown length (Farrar 1975). These were built-up from flat or splayed bases and then closed off in a similar manner at the top, before being cut vertically into two trough-shaped halves. The clay, tempered with coarse sub-angular quartz sand, was the same as that used to make BB1 vessels. The 'Fitzworth' trough would appear to have come into use during the Roman occupation, at a later date than the 'Hobarrow' pan (Farrar 1963).

The briquetage includes nine fragments derived from troughs. These include two rim pieces (Nos.29,30) and are all in thin orange-fired fabric. A salt production site at Upton,(Jarvis 1985),had container briquetage derived exclusively from vessels of this type and was dated by the associated pottery to the 2nd and early 3rd centuries. At Ower, 'Fitzworth' trough fragments were accompanied by pottery with a similar date range to that from Hamworthy (Farrar 1975;1977).

Illustrated Briquetage

29. Fragment from a rim in rough-smoothed fabric tempered with coarse quartz sand and fired orange-brown.
30. Fragment from a rim in similar fabric and with grass-brushing on its exterior surface.

'Hobarrow' pans

No complete dimensions are known for Hobarrow pans but Farrar deduced that the need for them to be portable meant they were unlikely to measure more than 0.50 by 0.30 m and were probably between 0.15 and 0.20 m deep, (Farrar 1975,18). The 1974 excavations at Hamworthy yielded 191 fragments of base/side angle and corners from such pans. Fragments from 26 different basal corners were distinguished; indicating that pieces from a minimum of 6.5 pans were present.

The lengths of the basal edge fragments, including those on the corner pieces, were added up to give a total length of 12.83 metres. Assuming the pans to be square, this would give average dimensions of 0.49 by 0.49 m.; somewhat larger than Farrar's estimate.

There are two different fabrics present, invariably found fired dirty brown or orange.

1. Coarse fabric tempered with angular and rounded flint and chert fragments between 2 and 15 mm. across as well as coarse quartz sand.

2. Finer fabric with sub-angular quartz sand filler of up to 2 mm. grain size. Fragments from only one pan in this fabric were found but are important in that the fabric appears to be the same one as used in the 'Fitzworth' troughs and provides further evidence for the close relationship between the salt and pottery manufacturing industries around Poole Harbour.

The development of 'Hobarrow' pans seems to have taken place in the Isle of Purbeck during the later Iron Age, (Farrar 1963). There are fragments of a light-weight version from Wyke Regis,(*op.cit.*Fig.2),and fully developed ones from the Kimmeridge Pier site (*op.cit.*) and Rope Lake Hole (Hawkes 1987). Use of the 'Hobarrow pan' continued into the Roman period, when the type was joined and perhaps replaced by the 'Fitzworth' trough. Production of the latter type of container required considerable potting expertise, including experience in the manufacture of large, storage-jar size vessels. Large storage vessels are only significant in the BB1 repertoire from the 2nd century onwards.

There is a considerable variety of finish present on the pans from Hamworthy.

Basal edges.

There are several varieties of pan basal treatment :-

A. Plain, flat base forming a simple angle with the side.
B. Flat base with a narrow vertical ridge along its edge at the junction with the side of the pan.

At first it was thought that these two treatment types represented different varieties of 'Hobarrow pan', but some of the corner fragments show one side with a Type A base meeting another with Type B treatment. Pans of this type appear to have been made on flat slabs of some description with some or all of their sides squeezed over the slab edges to form the ridges.

C. Flat base with a similar ridge to Type B but having chamfering on the lower part of the side above.

Illustrated Briquetage

31. Basal corner fragment of Type C. In very coarse Fabric 1 fired brown and with traces of white, salt-boiling precipitation on the exterior surface.
32. Basal corner fragment in similar fabric to the above.
33. Two joining fragments from a basal corner of Type B. In Fabric 2 fired brown with rough surface smoothing.

Rims

For the most part, pan rims were roughly rounded or crudely flattened, as those from Ower (Hawkes 1987a.92). Sometimes the treatment is so rough as to make it virtually impossible to recognise rim fragments for what they are. There are, however, two fragments more elaborately finished with finger-impressed decoration (Nos.36 and 37).

Illustrated Briquetage

34. Section through rounded pan rim in coarse Fabric 1 fired orange. Nos.35-37 are in a similar fabric.
35. Section through flattened pan rim.
36. Rim fragment from pan with diagonal finger-rippling on its upper surface.
37. Rim fragment from the corner of a pan with finger-impressed decoration on its upper surface.

One brine-boiling pan, No.38, differed somewhat from the others in having an elaborate beaded rim. Splayed basal fragments, from what appears to be the same pan, have finger marks on the lower portion of the side ,where the clay has been drawn out. A creamy deposit on both the interior and exterior surfaces of this pan appears to be the remains of a ball-clay slip rather than the result of deposition of salt compounds through boiling.

Supports.

Bars

Bar fragments are rare: three types are indicated

A. Rectangular in cross-section with raised central ridges on one side.

Illustrated Bars

24. Fragment in coarse fabric tempered with up to 2 mm. sub-angular quartz sand and fired reddish-brown.
25. Fragment in similar fabric with finger-impressed decoration along its sides and an angular centre ridge. These do not seem to be paralleled elsewhere.

B. Plain, flat bars with tapering, rounded ends.

Illustrated Bars

26. End of a bar in a similar fabric to the Type A bars.
    This type of bar was found at Upton,(Jarvis 1985),and Ower (Farrar 1975) amongst other places and appears to have been used, in conjunction with supports, to carry 'Fitzworth' troughs over salt-boiling fires. There is only the one fragment amongst the 1974 Hamworthy briquetage.

C Square-sectioned bars.

Illustrated Bars

27. Fragment from one end of a bar, in coarse, sub-angular quartz sand-tempered clay fired reddish-brown with white salt-boiling precipitate on the surface.
28. End fragment from large bar in very coarse, angular flint grit and quartz sand-tempered fabric with rough smoothing on the sides and end. Fired brown with white salt-boiling precipitation on two adjacent sides only.
    Several bar fragments of similar type came from Hengistbury Head (Poole 1987,111.125.2 and 3), and were associated with Late Iron-Age occupation on Site 1 there (Cunliffe 1987,120).

Props

The Hamworthy briquetage included 67 fragments from such objects. They nearly all showed signs of spiral twisting but seem to have varied considerably in length and end treatment. Only two complete or reconstructable examples were found ; one 85 mm. and the other 190 mm. long.

The material used seems to have differed from both the prepared BB1 potters' clays used on the 'Fitzworth' troughs and their support bars, and the coarse fabrics of the 'Hobarrow' pans. There were 33 fragments in a white-firing clay streaked with pink or maroon and very sparsely tempered with the occasional flint grit. The rest of the props were in an orange-firing clay with similarly sparse inclusions. White-firing clays were present on the Upton site (Jarvis 1985) and were probably used to make the similar, but non-twisted, props found there.

The ends of these props were finished in a variety of ways :-

A. Flattening is the most common type of finish and can be at 90 degrees or obliquely placed to the length of the prop. Out of 37 ends, 18 are of this type.

B. Rounded ends are represented by ten examples.

C. Pinched ends are represented by one example.

D. Angle impressed ends have an indentation similar in profile to the basal angle on a 'Hobarrow' pan . There are two examples present.

E. Ends with deep rounded slots in them. Jarvis (1985) noted that such slots were of a size to contain one side of a Type B bar laid with its thickness in the horizontal plane and suggested that props of this type were used as additional support under the centres of such bars. There are six examples present.

Spirally twisted and sausage shaped props seem to be associated with both 'Fitzworth' troughs and 'Hobarrow' pans and occur on virtually all of the saltworking sites around Poole Harbour (Farrar 1975.18). They were probably used as supports for 'Hobarrow' pans, to raise them over hearths in a similar manner to containers at the Iron Age brine-boiling site at Ingoldmells in Lincolnshire (Riehm 1961) and also to secure the convex undersides of 'Fitzworth' type troughs to bars over salt-boiling hearths. One of the Hamworthy props, No.39,is admirably shaped to perform the latter function.

Illustrated Props

39. Twisted clay prop with Type A ends. In fine pinkish-cream clay fired creamy-buff and with sparse, coarse flint grit.
40. Prop fragment with a Type B end. Similar fabric to No.39.
41. Prop fragment with a Type C end. Similar fabric to No.39.
42. Short, curved prop with one end of Type D and the other of Type B. In fine orange clay with cream streaks and occasional grits.
43. Slotted prop end of Type E in a similar fabric to No.42.

Prop attachments.

In their fired state, the props would have to be secured in place with soft, plastic clay before each salt-boiling operation. Such attachments take several forms and were present in small quantities.

A. There is one class of object consisting of a small lump of clay with a hollow in one side and flattening of the other. It is tempting to see these objects as being fitted over the rounded ends of props of Type B in order to anchor them to kiln bars or the undersides of boiling containers

Illustrated Prop Attachments

44. Elongated clay lump; originally with at least two indentations on one face. It may have been used to anchor two props to a container and to each other. In fine, creamy-buff clay.
45. Rounded clay pellet with an indentation in one face and flattened on the other. Parallels occur at Upton (Jarvis 1985.Fig.3-18) and Ower (Hawkes 1987.Fig.51-208). In pink clay heavily over-fired on all but the flattened surface.

B. Rough clay rings and portions of rings are represented by several fragments at Hamworthy. The shapes suggest clay being packed around the ends of props to anchor them to the oven base, bars or salt-boiling containers.

Illustrated Prop Attachments

46. Partial ring in white clay fired pinkish-buff.
47. Lump of fine white clay which has been wrapped around the corner of a ?kiln bar or ?Hobarrow type pan to anchor it to a flat surface.

Discussion

Farrar (1975), observed that the distribution zones for 'Fitzworth' troughs and 'Hobarrow' pans were almost mutually exclusive. The 'Fitzworth' container was characteristic of a northern, heathland group of salt-working sites around Poole Harbour whereas the 'Hobarrow' pan was a feature of a group of sites around Kimmeridge, on the Channel coast to the south. The one exception to this arrangement was the presence of 'Hobarrow' pans at Hamworthy in the heart of the northern group of sites.

We may thus visualise a situation at Hamworthy where pottery manufacture was taking place during the 1st century, alongside salt production, using 'Hobarrow' pans. Potting was renewed at the beginning of the 3rd century but the practices of salt manufacture had changed. A few 'Fitzworth' troughs were in use, and possibly some 'Hobarrow' pans, but the bulk of brine boiling probably took place in large jars. At the contemporary late 2nd-/early 3rd-century Upton salt-working site, however, virtually all brine-boiling seems to have taken place in Fitzworth troughs (Jarvis 1985). There were hardly any potsherds present on that site and it may be that an absence of pottery production in the immediate neighbourhood, with a resultant lack of convenient reject pots, meant greater reliance on 'Fitzworth' troughs in the process of salt manufacture.

A Baked Clay Sling Shot (Fig. 2,No.48)
by M.A.B.Lyne

This item came from Trench II Layer 1: the same layer as much of the pottery. It is of Durotrigian type, amygdaloidal in shape and in untempered clay fired pinkish-brown. Weight 26.3g. Very similar baked clay sling shots have been found on several late Iron Age sites in Dorset and neighbouring counties. A number came from the Hod Hill fort, (Brailsford 1962; Richmond 1968) and Glastonbury (Bulleid and St George Gray 1911). At Maiden Castle, Wheeler's excavations produced many examples, (1943,49, P1.XXXII). There, however, they were a very small constituent of great hoards of these objects, otherwise made-up of selected pebbles from Chesil Beach.

The Hamworthy example may be a casual loss by a wild-fowler, but the close similarity in form and size to examples from elsewhere suggests the possibility that sling-shots of this type were centrally produced and traded. Durotrigian pottery production was certainly taking place around Poole Harbour and the manufacture of baked clay sling-shots could easily have been carried out by the potters as a side line. Because of the simplicity of form it is likely that there would have been little if any wastage once the firing technique had been mastered.

The Terra Sigillata
by G.Dannell

A total of 19 small decorated and plain sherds were recovered from the excavations and included a Claudian South Gaulish form Dr 29 bowl. There was also another Claudian/Neronian South Gaulish form Dr 29 bowl, which is too small for ascription but see (Knorr 1919, Taf. 56A) by MELVS.

Other Finds (Not illustrated)

1. Spherical object. 70mm diameter. Light grey coarse friable matrix. Examination by D.Williams under the binocular microscope (X20) shows a hard clay matrix containing small subrounded quartz grains, fragments of flint and dark coloured pieces of ?shale. Possibly Roman mortar/concrete. It is unlikely to be entirely natural ; spherical shape might be due to rolling in sea.
2. Two fragments of iron smithing slag and two sherds with metal working residues indicate iron smithing activity.

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Melbury Abbas: Medieval Pottery in Perspective

M.S. ROSS
Shaftesbury and District Archaeological Group

SUMMARY

Unstratified sherds of medieval pottery dating from the 12th to the 14th century, with animal bone and iron slag, were found from the fill of a small pond (ST 87862040), which was excavated as an environmental project at Melbury Abbas, Dorset.

THE HISTORY

Evidence of prehistoric occupation including 'Celtic' fields, (part of which is described as an Iron Age/Romano-British field system, DCC AMR) as well as Roman activity, has been recorded in the past. Romano-British inhumation burials were found near Melbury Hill in 1846, one burial being associated with a coin of Antoninus Pius (RCHM 1972, 48) and another inhumation of a child in a lead coffin came from Cann Common (ST 88362112) just over the parish border in Cann (*ibid.*). More recently Roman pottery was found in the silt of a lake, constructed from previous water-meadow and watercress beds, some 300 m east of the church so a Roman site in the vicinity is a possibility (Peter Cox, pers. comm.)

Melbury Abbas was one of the manors of Shaftesbury Abbey from 956, hence the affix *Abbas* (Mills 1989, 130). It lay within the ancient *Sexpene* Hundred and although most of the parishes in the Hundred are delineated by tenth century grants, Melbury is only described by these Anglo-Saxon boundaries because it has a common border with Compton Abbas on the south, (Grundy 1936, 114-116). Noticeably it lacks the 'toponymic' names, (Barker 1984, 36-7), those mostly of English origin and therefore suggestive of an earlier date, which apply to the parishes to the south, such as Compton Abbas, Fontmell Magna and Iwerne Minster (Fig. 2). This would seem to suggest that Melbury had no settlement in the earlier Anglo-Saxon period although geologically and topographically it was similar to the other parishes, with desirable agricultural resources from the Chalk Downs on the east to the seemingly wooded Clay lands in the west. Moreover it was well-watered by the River Stirchel, (the little Stour) or *Stirthel* as it was known in the 10th century, which formed in part the boundary with the later parishes of St. James, Shaftesbury, and Cann. As the place-name Melbury is thought to mean 'multi-coloured fortified place', and with the second element *burh* similar to that in the name Shaftesbury (Mills, 1989, 130), it seemingly has a connotation of defence which might relate, as Murphy suggests, to part of the strategic position of Shaftesbury Abbey considered by Alfred for his foundation (1991, 29).

The Boundaries

These Anglo-Saxon bounds for Compton Abbas (Grundy 1936, 114-6) (Fig.3), are discussed in a recent study (from the draft text of an edition of '*The Charters of Shaftesbury Abbey*' by S.E. Kelly) [to be published by the British Association, courtesy of Lawrence Keen], in which some doubt has been cast on their validity, as they are thought from comparative material to have been rewritten in later years. It is also stated that the section of the Compton Abbas bounds which is relevant here is 'slightly corrupt with repetition and some loss of linking words' (*ibid.*) The consecutive boundary marks which Kelly describes are 'a stream or pool' [*lacu agar*], 'a highway' [*here weg*], (this could be the old road from East Compton to Kit Hill which crosses the River Stirchel), and 'the larger brook' known as the Stirchel. Then it follows the river to a 'small stream or pool' [*lytel, lacu*], by the boundary of Melbury Abbas, (this would seem to follow what is now the parish boundary upstream to Whiting's Farm), described by Grundy as *c.* 3 furlongs (350m) east of Lydford's Farm (1936, 116, No. 10), (if this is understood correctly, the distance is nearer 600m), then turning south-east. From this point the boundary marks are 'fern hill' [*fearn hyll*], which Grundy suggests is a rise just above Budden's Farm, (*ibid.*), but not presently identified, and on to 'a certain house' [*hus*], (thought to be south of the farm where the boundary turns east along the Twyford Brook). It then rises over Melbury Down to 'the old beacon' [*eald, ad*], (perhaps the site of the Melbury Beacon Mills 1989, 102). Grundy then refers to 'the Leap Stile', possibly a 'deer leap' on the high ground east of Melbury Hill (1936, 116, No. 14), (Fig. 3). The present boundary on the hill may well be post-enclosure in date because of the difficulty of marking and describing it in the past. The 'Ditch' shown by the Ordnance Survey between Compton Down and Melbury Hill, running more or less parallel to the boundary, is described as a disused trackway (RCHM 1972, 48). As it is generally recognised that Saxon bounds followed existing features, had the trackway been earlier in date, it might reasonably have been used as the boundary. The parish boundaries on low ground are marked by

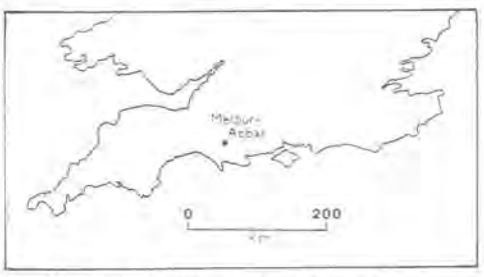

Figure 1. Melbury Abbas: location map.

Figure 2. Melbury Abbas: position relative to adjacent parishes (after RCHM 1970, Map of North Dorset).

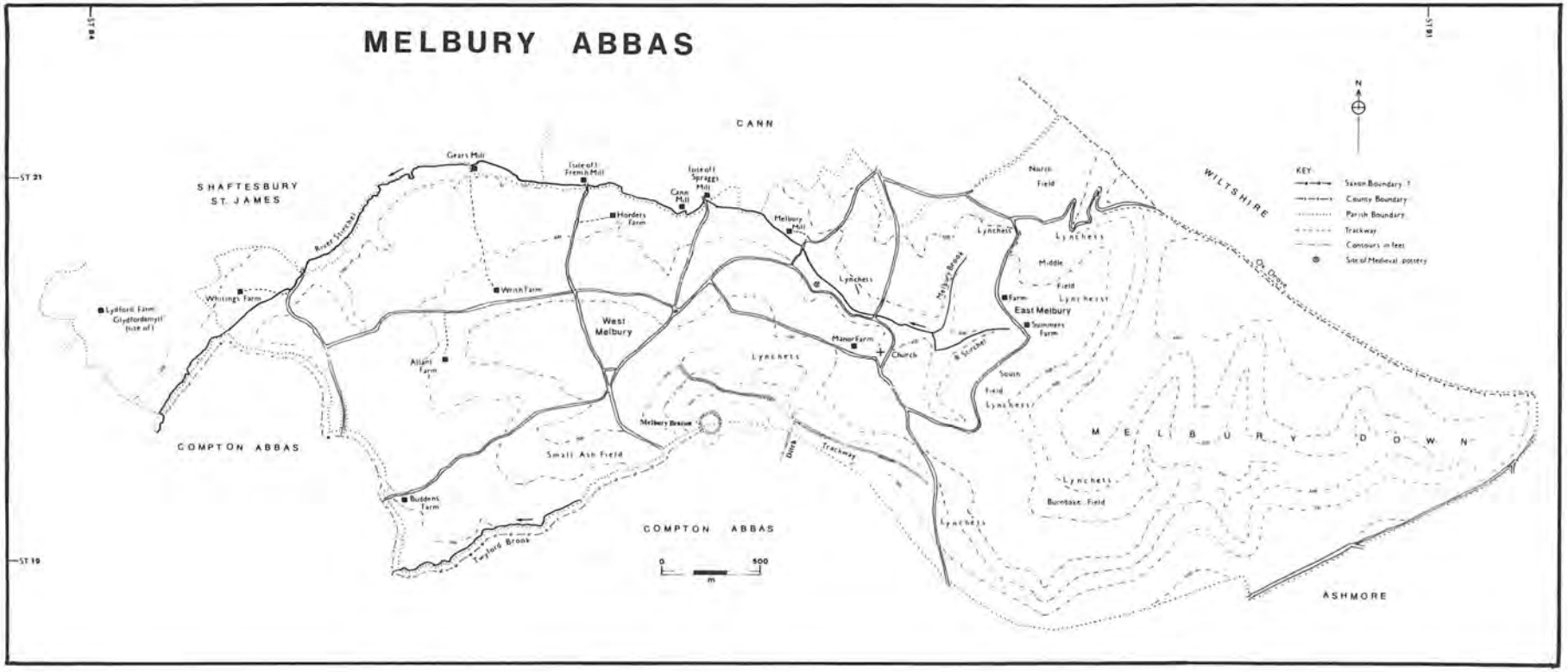

Figure 3. Melbury Abbas: map of parish with interpretation of part of boundary from Anglo-Saxon Charter; position of lynchets is approximate.

dense hedges, having a variety of free-growing shrubs and mature trees on both sides, with deep-cut ditches and river channels, and are apparently the same as the Saxon bounds. The very stability of Shaftesbury Abbey, who owned the land to which these Charters referred, makes any change unlikely and the boundaries would appear to be as they were originally described (Teresa Hall, pers. comm.) Later evidence comes from the zig-zag pattern of the boundary north of Melbury Mill, demonstrating the limits of medieval cultivation, probably by assarting (Aston 1985, 43) and suggesting demarcation of the parish of Cann. The boundary to Wiltshire on the east is formed by a track with hedges on both sides.

In the western part of the parish, farms appear to have been cut out of woodland and have the irregular field boundaries symptomatic of assarting, yet each seems to be enclosed by relatively straight boundaries (Taylor 1982, 96), which are neatly defined by roads. Roadside verges are seen in places to have botanical indicators of ancient woodland, such as Dog's Mercury and bluebells. Some of these farm names can be traced to the medieval period, for example, Horders to the *Lay Subsidy Roll* of 1332 (Mills 1981), Writh Farm known as Richmans to Richeman (Inquisition of the Ninths, 1341, Hutchins 1868, 563), and Somer possibly referring to the farm known as Summers in East Melbury (*ibid.*). Whitings from John and Isabel Whyting described below while Allen's and Budden's Farms have sixteenth century references from deposited documents (Mills 1989, 130 and DRO, Glyn Archive), but are probably older.

Domesday Book

The importance of Melbury lay perhaps in the river because the parish supported four mills on the River Stirchel, recorded in 1086, (of which all but one are now in the parish of Cann), and had land for twelve ploughs (Thorn and Thorn 1983, 78d). It also had a population of 27 villagers (villeins), and 20 cottagers (cotsets), the only Shaftesbury manor where the latter are recorded (VCH 1975 iii, 17n). They were regarded as a different class from the usual cottagers (*cotarii*), although the distinction is not clear, but they had some land and shared ploughs with other villagers and, from earlier accounts, had obligations to the lord which included working for three days at harvest, but they paid no land tax (Thorn and Thorn 1983, n1.8). It is noticeable that the pre-Conquest 10 hides quoted for Melbury Abbas and the 50 hides of the Hundred, conformed to the five-hide unit apparent in Domesday Book for Dorset (Darby and Welldon Finn 1967, 82), although by 1086 there was land for 12 ploughs, (Thorn and Thorn 1983), the equivalent of 12 hides. Because of its prevalence, the importance of this multiple of five is taken to indicate the tax liability of a manor rather than its acreage (Keen 1991, 8). In comparison with the other villages in the Hundred (which includes Compton Abbas and Iwerne Minster), only Fontmell Magna has many more villagers (45). Domesday woodland of 8 furlongs long and 2 furlongs wide may be computed at 93 acres, using Rackham's method of calculation, (1983, 59), assuming a hide to be in the region of 50 to 60 acres (Keen 1991, 13), but it is not disclosed whether this was coppice or pasture woodland. There is also pasture of three-quarters by a quarter of a mile, which could have been in strips. For the other parishes, Compton had the same amount of pasture but no woodland, Fontmell had woodland and pasture, which cannot be calculated due to the variable measurements, while Iwerne Minster had one and a half by three-quarters of a mile of woodland and slightly more pasture than Melbury, which did not have the meadow listed in the other parishes (Thorn and Thorn 1983, 19.4-7).

The Medieval Period

Less than fifty years after Domesday Book was compiled, the Cartulary of Shaftesbury Abbey, based on similar lines, recorded three surveys, providing a list of the Abbey's lands in the 12th century, in which details are given about the actual holders of the land. In the case of Melbury, most come from the first survey of *c.* 1130 (BL Harleian MS. 61: from transcript in possession of Laurence Keen). A list of customary tenants there gives 45 names, (some of which appear to be duplicated, so it is difficult to be precise), and this includes the priest, two cotsets, and two with mills (fols. 47v, 48r, 48v). The virgaters and half-virgaters (a virgate is a quarter of a hide) paid rent, of which eight of the former paid 10d, the rest 7½d and the latter 3¾d, but rent of up to 4s is recorded, they also had to perform two or three days week-work, ploughing up to 4 acres and 3 acres fallow, paying church-scot (tax) of four chickens and one pig if they had seven, at Martinmas. Only two holders of 'cotsettle land' are recorded, but nine others listed have just 4 acres with week-work and church-scot. Two from the list of Tenants also had other mills. If a virgate is taken to be from 12½ to 15 acres, the total holding can be estimated at *c.* 352 to 413 acres (*ibid.* and fol. 53r).

It is likely that a 3-field system of agriculture was in operation suggesting a similar rotation of crops and entailing a regular sequence between crops and periods of fallow. At Melbury, demesne staff included a dairyman and a 'sower who ought to have a sedlop (basket) full of corn and another of oats' (fol. 48v). Livestock mentioned are pigs, a cow or draught-ox and a heifer but surprisingly no sheep, although shepherds are mentioned elsewhere. Another tenant had a garden at Fontmell (fol. 67v, second survey), but it is not known whether this was in addition to land held at Melbury. It is apparent that the prime interest of the surveys was in the rents of the manors which were recorded in great detail, and the change from services to rents may have been due in part to the uncertainties of the Civil War during this period with the result, as Postan emphasises, that the position of villeins at the end of the 12th century was much less servile due to the gradual commutation of services (1972, 150).

The first reference to Cann parish, (originally part of the manor of Barton and Cann, Hutchins 1868, 79-80), which was previously interposed between Melbury and Shaftesbury on the east and north, forming a rather shadowy and little-recorded unit, is not until 1100 (Mills 1989, 90), there being no entry in Domesday Book. It was actually included in the amalgamated Sixpenny Handley Hundred of the 13th century by Hutchins (1774, 208), and there is reference also to tenants in Cann in the Cartulary of Shaftesbury Abbey, *c.* 1130 (BL Harleian MS. 61, fol. 48v). However some idea of its development is endorsed by the licence given to the Sisters (of Shaftesbury Abbey) in 1337 to acquire more land to the value of £10 yearly. 'In part satisfaction of this grant, they obtained lands and messuages in Shaftesbury, Cann...' and elsewhere (VCH iii 1975, 74), although it could not have been a very great amount from the widespread distribution. In the last hundred years, Cann has been largely formed by transfers from other parishes in Shaftesbury. Unfortunately the regularity of the medieval manors of the Iwerne Valley, so ably demonstrated by C.D. Drew, has not been replicated in the parishes further north, in spite of their geographical similarity (1947, 45-50).

Development of the parish after amalgamation of the Geld Roll Hundreds of *Sexpene* and *Hanglege*, (Handley was detached), both of which belonged to Shaftesbury Abbey, probably took place in the 13th century (Mills 1989, 89) and is easier to elucidate. Most striking perhaps is the church and its elevated position on an outcrop of Upper Greensand, with its boundary dropping precipitately on the south and east. Although rebuilt entirely in 1852, a church is noted from the 13th century and is listed as paying 9 marks in the Taxation of Pope Nicholas IV in 1291 (Hutchins 1774, 208), an item in itself of some importance, and comparable to the churches of St. James, Shaftesbury and St. Rumbold's Cann. However an even earlier existence is recorded *c.* 1130 from Shaftesbury Abbey Cartulary, when it apparently had no endowment of land as did many other churches and the priest, Eilan, was supported only by tithes and contributions 'what the villeins themselves are willing to give' (fol. 47v, BL Harleian MS. 61).

It seems likely that this domination of the church over the locality, with its defensive aspect, and the presence of springs in

the vicinity, is indicative of an ancient site, and the likelihood of a church or chapel being in existence before the Conquest (Rodwell 1981, 142), which would be entirely in keeping with the early date of Shaftesbury Abbey. The small amount of Glebe land in 1839 (1.5 acres) implies that the original Glebe had been appropriated by the Abbey at some earlier time, although perhaps it had never existed in view of the lack of land described above. A Terrier of 1784 does not list land other than the garden (WRO D28/10, Register of Terriers). The Manor Farm, formerly Melbury Farm, with the Rectory and the Glebe, may be seen in their physical presence adjacent to the church, as part of an earlier medieval relationship. Even so, the Manor Farm of today is not particularly close to the church as might be expected and no records of earlier buildings are known.

Scrutiny of the rather damaged medieval Court Rolls has been very limited. That of 1453-4 deals with presentations to the Court which include admissions, deaths and transgressions. Names are noted which appear in later documents; John Cave (Morgan Cave 1969), Walter Boyes son of Thomas Boyes, for a messuage held by Robert Kynge in 1571-2. He was also named in 1453-4 and is presumably a forebear of Robert Kynge in the Lease of 1518-9, described below (WRO 2667/13/399).

The Post-medieval period

An Indenture of 1518-19 describes the terms of the Lease of 'all the manor of Melbury and all its demesne lands and services of the customary tenants', between the Abbess of Shaftesbury and Robert Kynge (WRO 2667 3/863), demonstrating that landlords were again letting out their demesnes to farm (Postan 1972, 106). It gives details of the stock, including 12 oxen, wheat, barley and oats, as well as 30 acres set aside for seed corn. The rent consisted of grain: 20 qtr. wheat, 10 qtr. barley, 30 qtr. oats. The Abbess drove a hard bargain, even though undertaking to repair the buildings roofed with tiles and straw, as a year's rent was payable at the end of the lease in addition to returning the stock. Of interest is the reference to hedges, ditches and gates as well as closes, suggesting some limited enclosure (WRO 2667 3/863). Arrangements for enclosure were being gradually undertaken between landlords and tenants for special payment at this time (Postan 1972, 53) and are well-documented in the Blackmore Vale (Taylor 1982, 9) but it is questionable whether the customary tenants were actually performing services and it is more likely that they were being paid for their work. Again sheep are not mentioned in spite of the Downland available.

An attempt has been made to compute the acreage from these quantities of grain, on the basis of yield. For the 13th and early 14th centuries, a yield of six to eight bushels (8 bushels = 1 quarter) an acre for all types of grain has been estimated from the estates of the Bishop of Winchester (Postan 1972, 62) but following the Dissolution, no such figures can be traced for the 16th century. However, a Royal Society report in 1665, which included West Dorset, cited fair or medium yields of bushels per acre as follows:- Wheat 8, Barley 14, Oats 8, while output from a hypothetical farm *c.* 1600-1620 of 30 acres, taken from the *Agrarian History of England* (Thirsk 1967, 653) gave the yield as: Wheat 15, Barley 13, each from 10 acres, with 10 acres fallow. (I am indebted to Dr. J. Bettey for these references). Alternative acreages, therefore, based on quantities in the Lease quoted above would be approximately: wheat 20 [11], barley 6 [6], oats 20, giving totals of 46 acres [17 acres for wheat and barley only]. An *Inspeximus* or valuation of the spiritual lands of Shaftesbury Abbey *c.*1534-5 states that the demesne farm produces: 40 qtr wheat @ £10.13.4. (8d per bushel) 17 qtr barley @ £2.5.0. (3¾d per bushel); 10 qtr oats @ £2.13.4. (8d per bushel); (DRO D/GLY: B198) and using the above criteria this gives acreages of 40 [21], 10 [10] and 10 , amounting to 60 acres [31 acres for wheat and barley only]. However, the figures are taken from data compiled some 100 years later. The succeeding Lease of *c.* 1550-1 for the Manor actually describes acreages of arable 20; pasture 100; meadow 20; wood 40; (180 acres) and includes the corn rent, (Early Chancery Proclamation, Dorset, 1547-1551, Bundle 1207, *History of Melbury Abbas* 1985, 46, Melbury Abbas and Cann's Womens' Institute: the original document has not been traced). The small amount of arable land does not seem realistic, possibly there were strips in the Common Field elsewhere, but based on the two sets of yields, the Leases of 1518-18 and 1534-52 average 53 and 24 acres respectively. It seems likely the former was nearer the actual figure with fallow land and the time of year to be taken into consideration. Strangely, the cost of barley per bushel is half that of wheat and oats. It was quite extraordinary to find after nearly three hundred years that this grain rent was still listed in the Manorial records in the Lease of the farm in 1792 (DRO D/GLY:B M11) although a money rent of £72 was given as an alternative and would doubtless have been preferred.

The Mills

The presence of mills on the parish boundary in 1086 has relevance here (Aston 1985, 42), with the entries in Domesday Book demonstrating manorial control of the river and, because of the need for mills to be profitable, the quantity of grain that must have been available for grinding (Keen 1991, 13). Again Shaftesbury Abbey's Cartulary is informative, for by 1130, there are two millers in the list of Tenants for Melbury, which had been alienated by the Abbey. Edric, 'a certain sergeant' (tenure by Sergeanty), paid 5s and Hugo had two mills with land, worth 20s (fol. 53r). It is suggested that it is possible for two mills to refer to one actual mill building, as a single water wheel can drive two pairs of mill-stones, although they need to be close together (DCC *Survey of Dorset Water Mills* 1983, unpublished MS by J. Harte with S. Ludgate) and this may have been the case here. However, only Cann and Spragg's Mill were sufficiently close and even then some 150m apart, so it is impossible to reconcile this with the 12th century mills. Two other millers are also listed, Elwin paying 15d (fol. 47v) and Goscelin 6s (fol. 48r). Interestingly another Tenant was Radulph, a mason, (*cementarius*), (fol. 53r, *op. cit.*), not unexpected in view of Melbury's Upper Greensand quarries, much in evidence in later centuries.

The mills known today are Gear's Mill (Low Mill 1811), French Mill, Cann Mill and Spragg's Mill, all now located in Cann parish (Mills 1989, 95-6). Gear's Mill may be involved with, and perhaps identified from *Mulehulle*, associated with *Danyelesmulle* 1328, and existing field names of Daniel nearby (T/CAN 1840). It may also be compared subsequently with *molendium Johannis Mathies c.* 1407 and *molendium Johannis Richeman* 1312 (*ibid.* 95 and 157-8), where fields named Richeman lie near this Mill (T/MAB 1839). French Mill (*molendino Franncisci*) or Frenssh myll (*sic*) was listed in the Cartulary of Shaftesbury Abbey and later as a water corn mill, granted to Sir Thomas Arundell in the parish of St. Rumbold's, Cann (Hutchins 1868, 13, 86). Spragg's Mill is recorded in 1748 (*A Survey of the Manor of Melbury Abbas* 1773, DRO D/GLY:B M11) and in 1801 is probably that described as a water grist mill, lately a fuller's mill, held formerly by Elizabeth, daughter of Thomas Sprague (DRO D/GLY:C T28), demonstrating their alternating use. But these two latter mills no longer exist, while Cann Mill is shown on Isaac Taylor's map of Dorset 1765 (DCM). A manorial record refers to John Skynner, a copyhold tenant of a fulling mill in Cann at a rent of 13s 4d in 1571-2 and earlier (DRO D/GLY:B M8 and M9), but it is not known to which mill this refers.

Another possibility in addition to those mentioned above, is a reference to *Glydefordemyll'* in 1360 at Lydford Farm (ST 842203), formerly in the parish of St. James, Shaftesbury where the ford and mill may have been on the small stream west-south-west of the farm or, more importantly, on the River Stirchel to the east (Mills 1989, 94), but as a stream or ford at this farm has not been located, it would seem to refer to the latter. The name Glydeford appears on the *Lay Subsidy Rolls* of 1332 for Shaftesbury (Mills 1971), but the significance lies in the change

in direction of the parish boundary of Melbury Abbas in the extreme west, where it leaves the River Stirchel and makes a loop to include Whiting's Farm which is only some 600m from Lydford Farm, (the earlier spelling was Glydford). A licence to have 'Divine Service celebrated in the oratory of their house' was granted to John Whyting and Isabel his wife in 1401 (*Registrum Roberti Hallum*), if indeed that was where they lived, and has some meaning in this context, but no evidence of a leat or mill can be seen on the ground there. The importance of this grant is not clear and it may merely have reflected their status. Indisputably Barfoot's (now Melbury) Mill must always have been in Melbury Abbas, recorded first in 1564 also as a fulling mill (Mills 1989, 131). Whichever the Domesday and 12th century mills were, apart from the latter, they became part of Cann parish probably when it evolved in the 13th century, but were obviously in use during the Anglo-Saxon period by Shaftesbury Abbey and pre-dated the delineation of the parish boundary.

The Parish

The parish has two *nuclei*, Melbury Abbas (a name now in general use) where previously West Melbury included the church, and East Melbury, divided by the deep valley of the Melbury Brook, of which the former contained the church and the latter, according to Hutchins, was a 'little hamlet and tithing adjoining to West Melbury' (1774, 208), implying a lesser role. Boswell, however, in *The Civil Division of the County of Dorset*, 1795 refers to West Melbury as a 'Tithing in conjunction with Cann St. Rumbold's Parish', (St. Rumbold's Church is actually in Shaftesbury), and East Melbury as a single entity. It is hard to say whether this has significance, though obviously the presence of the church in Melbury Abbas is all-important.

The settlements of East Melbury and that part of West Melbury, (or Melbury Abbas) near the church, both appear to have a linear pattern, dictated in part by the topographical division of the Melbury Brook, West Melbury is obviously the primary site with the church from the 12th century or possibly earlier, while East Melbury is first recorded in 1305 (Mills 1989, 131), although likely to have been in existence before then. The sparsely populated area round the church, and its relative isolation suggests deserted settlement, which may have re-emerged at East Melbury, where fields on the east adjacent to the Open Fields might indicate early encroachment and enclosure, but this is purely an assumption.

The Open Fields

Recording of what would appear to be Open Fields on Melbury Down to the east, as North Field (*c.* ST 889209), Middle or Rittle Field (*c.* ST 892205), South Field (*c.* ST 888198)), and Burnbake Field (*c.* ST 891193) on a map of 1774 (DRO D/GLY:B P2 Plan of Manor of Melbury Abbas), show them as still in the mixed tenancy of five farms. The fact that these fields are described on the Tithe Map with lanches (lynchets), apart from North Field, might suggest they are 13th century in origin, although for the latter, air photographs reveal lynchets at *c.* ST 888208, 'North Close' (CPE/UK/1811 B3082, DCM). However, Burnbake, which refers to 'land prepared by paring and burning' (Early Modern English), (Field 1972, 33), cannot in that case be 13th century, unless it was a name applied to describe earlier cultivation methods, although it still had lanches. A massive medieval type cultivation terrace has been recorded at ST 88561946 (DCC, AMR), perhaps in fields named 'Chessil' [O.E. *ceosol* 'gravel'] (Mills 1989, 132), and 18th century references to arable 'In Chissel Field' show it was also part of the Open Field system. Other documents record arable in Hampstead Field, adjoining Burnbake Field and in West Melbury probable medieval lynchets are described at ST 87861998 (DCC, AMR) in a field named Far Field, arable in 1839 (DRO T/MAB). It is also apparent that Open Fields in West Melbury covered part of the central area, particularly Small Ash Field (Fig. 3) and strips are still recorded there up to the 19th century. The adjoining New Close also suggests it was formerly part of the Common Fields. Lynchets at ST 882208 have not been seen (RCHM 1972, 48), but a small series is evident at ST 881204, not previously recorded. However, it is obvious that the steep scarps of the Downs would have necessitated lynchets for any form of arable farming and these, if medieval, were perhaps the main source of grain for the mills. In fact a tenant was fined for digging up lanchets in the Common Field of East Melbury at the Court in 1758 (WRO 2667/15/24, *Manorial Records, Court Papers and Customaries*, 1723-83). It is notable that these likely medieval lynchets did not overlie the Celtic and Iron Age/Romano-British field systems as might have been expected (Aston 1985, 125).

Study of documents from the large collection in the Arundell and Glyn Archives in the Wiltshire and Dorset Record Offices have so far enabled landholdings to be traced from the later 15th century through to 1800 or later and detailed research into earlier Manorial Records would doubtless extend this period as suggested above. Numerous closes are described of just a few acres as evidence of earlier enclosure. Recorded enclosure took place at West Melbury and Cann in 1812 (DRO Inclosure 26). There is continuity of copyholds with the same rent, some of which have been traced, often in different names but perhaps acquired by marriage, with messuage, 'mansion house', garden, orchard, back side, and virgates of land. Closes consist of meadow or pasture, arable is in the Common Fields with pasture in common for sheep on the Downs (*supra montem*) and sometimes a few cattle, where land has been 'newly broken-up'. For example Edith Dybbin held by copy 1541-2, three named virgates at a rent of 18 shillings (DRO GLY:B M8) and these names can be followed through six entries and four different names, until it is a holding of John Young in 1803 at the same rent (WRO 2667/11/265, *Survey of the Manor of Melbury Abbas* 1803). Unfortunately the precise whereabouts of these holdings in East Melbury cannot be identified as the names have not survived.

Following the earlier Leases described above, the Manor Farm holding is listed in the 16th century (undated) as the 'capital messuage' and farm of Melbury Abbas, held by the widow of John Loe, knight. The numerous closes extend to some 190 acres with another 80 acres in the Common Fields and pasture for 400 sheep (D/GLY:B M10). From the field names, the holding noticeably had a linear development running from the Manor Farm or nearby, alongside the east-west road to Writh Farm in the west, later the Dairy Farm, and where there were various coppices. Melbury Farm Downs in both parts of the parish were specifically named quite separately from East and West Melbury Downs. Further leases appear in 1665-6, 1683-4 and 1692-3, (WRO 2667/1/21/7,18,22), 1723 (WRO 2667/15/24), 1766 1773 (DRO D/GLY:B M11), 1829 (DRO D/GLY:C T25) and 1839 (DRO T/MAB). In 1773 and 1803 the holding was as much as 494 acres but this included Writh Farm, with arable and Downland held in Common. For the 19th century, the extent was *c.* 186 ac (1829) and *c.* 179 ac (1839) strikingly similar to that of the 16th and 17th centuries and, if credible, not unlike that of the demesne in 1086 (150 or 180 acres). However, it must be borne in mind that hides and acreages varied in size, and acres were estimated until statute acres were introduced in the 19th century, so allowance must be made for some disparity.

The evolution of the parish from the early holdings by means of gradual enclosure is evident, ultimately forming the five major farms shown on the map of 1774 (*op. cit.*)

The Roads

The road system of mainly narrow holloways is likely to be ancient including the present east-west road from Whiting's Farm to the modern Zig-Zag Hill (Good 1966, 66), and trackways would have been necessary for access to the mills and developing farmsteads, Good describes the road from Child Okeford to St. James, Shaftesbury, following a ridge of the Lower Greensand, as having formerly been more important because of the number of

buildings beside it (*ibid.*) It was also the route along which Edward the Martyr's remains were carried to Shaftesbury in 979. Unsurprisingly it is also the ancient route described by Barker from Shaftesbury to Hambledon Hill, which passed through the Hundred *caput* at Penn Hill in Sutton Waldron (1984, 36), although only touching the western fringe of Melbury. A curious anomaly in the parish boundary occurs on this road at ST 854198 where it doubles back on itself for about 200m and forms a sunken plot alongside the road some 7m wide, covered with trees and dense undergrowth. The original OS map of 1811, revised in 1886, marks it 'Postgate', and the estate map of 1774 (*op. cit.*) as well as the Tithe Map (DRO T/MAB) record a building, which is confirmed locally as having disappeared only after the First World War. It seems reasonable to assume that this is a post-medieval feature connected with the carriage of mail, perhaps where tolls were exacted and horses changed, as the configuration excludes Melbury Abbas parish presumably to keep any revenue accruing in Compton Abbas but this, of course, is open to question.

Conclusion

In spite of these historical details, no medieval settlement has been isolated, either from examination of air photographs and documents or from scrutiny of the land round the church and elsewhere. Occasional sherds of pottery of medieval date have been reported from various fields, some ten fragments at East Melbury, which may have been the result of manuring fields, but the assemblage for which this report is produced is the only tangible evidence for the early medieval period. Nevertheless, the considerable land-use evident from the 12th century surveys, together with the mills in operation and the use of lynchets, gives substance to the archaeology and thereby underlines its potential. It is apparent that a remarkable continuity of occupation with details of agricultural practices exists from the medieval period to the present, which might be elucidated by further research.

FIELD SURVEY AND FINDS

The Geology

The modern parish of some 2,700 acres spreads over the Chalk escarpment, with the church and nucleus of the village clustered on the south side of the deep valley of the Melbury Brook. The central area, between 122m and 213m OD is mostly on the Upper Greensand and Chalk, while in the south, the Chalk rises to 262m OD at the prominent landmark, Melbury Hill. The Melbury Brook rising in the north-east, joins the River Stirchel, which then flows west through the parish, where the land on the Gault and Kimmeridge Clay falls from the north and west from 122m to 76m OD. Alluvial deposits occur along most of the river, but noticeably in the valley at ST 879205 (Sheet 313, *Geological Survey of Great Britain* 1974). The east-west orientation of the parish, as with those surrounding it, is partly due to the sources of the springs in the high ground of Melbury Down rising from the east and joining the westward flow of the river, but also because it incorporates a varied topography with resulting soil types for differing agricultural uses.

The Site (Fig. 3)

The presence of a settlement site on or near the position described above is puzzling, as it lies some 250m west of Melbury Mill and about 500m east of the church and Manor Farm, where occupation might have been expected, but the fact that it is near a spring would perhaps be sufficient reason. Distribution of pottery round the site (Fig. 4) appears to be the result of initial disturbance during construction of the water meadows in the 19th century, but even so, the primary source has not been identified. However, it does seem likely that the ditch from which the pottery came, whenever it was dug, and it is shown as a field boundary on the Tithe Map of 1839 (DRO T/MAB), had disturbed the settlement site. There was also occupation round West and East Melbury and near the mills in use in 1086 and earlier, but as most fields are now permanent pasture, fieldwalking is precluded.

The spring, now piped, is on the south side of the valley through which the River Stirchel flows and formerly ran some 50m to a marshy depression, where a small circular pond has recently been created. This was approximately 9m across by 1m deep from which the medieval pottery sherds came. The fill was a light-coloured silty sand over Gault Clay with some peaty material. This pond lies on the angle of a ditch which formerly continued to the east and west and survives in part today. Within the pond, two small islands have been left, one of which was about 2m long and was faced on the south side with two dressed stone slabs, which mimic the angle of the ditch The reason for this became obvious when the valley was seen to be a former water meadow and the purpose of the stones, where there may also have been a sluice, appears to have been to divert the spring water into the ditch on either side.

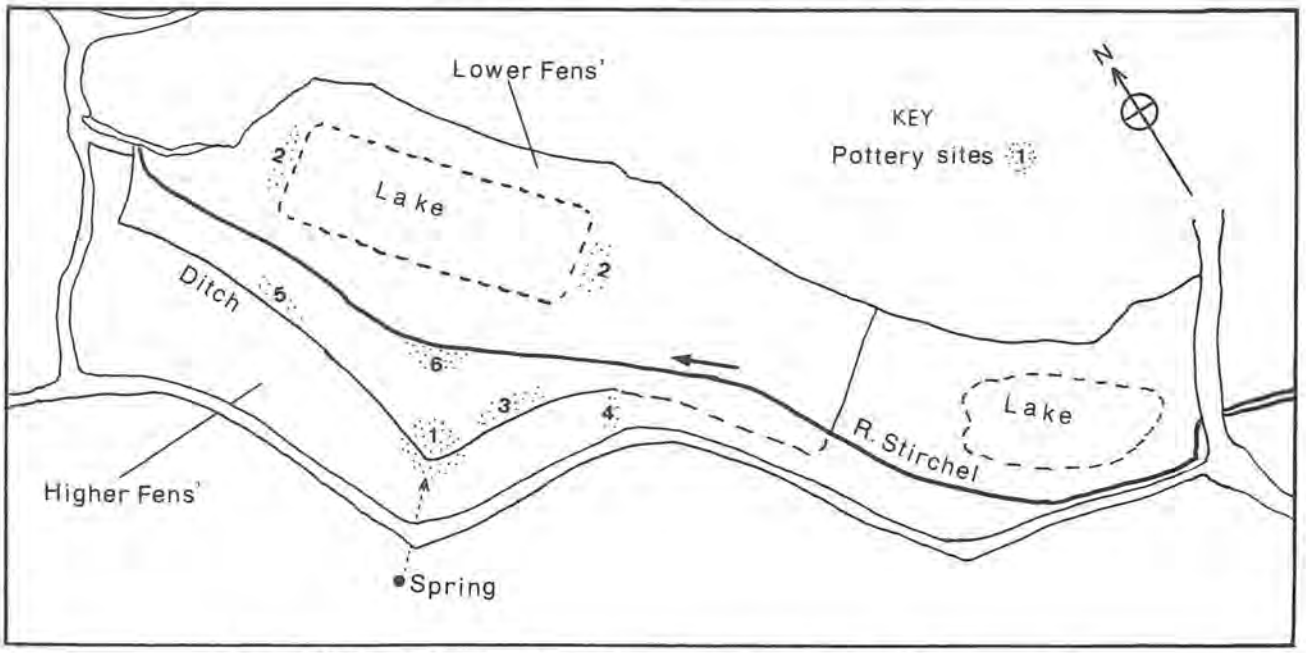

Figure 4. Melbury Abbas: distribution of pottery;position and size of lakes is approximate.

Below the pond, a semi-circular, flatter area with clumps of nettles, extended to the river and it has been suggested that in the past this was the channel of a meander of the river, which was just visible on the ground, but had since been straightened, perhaps when the water meadow was laid out (John Giles, pers. comm.) The alluvial valley is some 475m long by 150m wide and within it, a larger pond of approximately 0.5 ha has been constructed in the north-western part to encourage wildlife.

The valley consists of two fields named Higher and Lower Fens, (*terr[a] voc[ata] Vennes* 1564), a surname from fenn (fen) of 1564 (Mills 1989, 132) but perhaps originating from the marshy nature of the land. To the west, an area known as ' Water Meadow' has been successively developed as watercress beds and a trout farm in the past, but is now a conservation lake of some c. 0.25 ha. However, the boundaries of the fields are different on the Tithe Map (DRO T/MAB, 1839) and are juxtaposed on an earlier document which lists Long Mead (Lower Vennes and Water Meadow on the former) as water meadow (DRO/GLY:C T25, 1829). As further investigation of these features is required, a report on the water meadows will follow at a later date.

It is impossible to determine from this collection of sherds exactly where the settlement site had been, as much disturbance had taken place during the water meadow phase and this has been demonstrated by small finds of sherds in various areas such as the ditches, the river and round the large pond itself, as well as the major part from the fill of the small pond (Fig. 4), but it would appear to have been close. A low bank near the pond might be considered a house platform, but there are other banks high up on the south-east side of the valley, which are possible sites, although they could be the result of slumping of the Upper Greensand, however, no investigation has been undertaken.

The Finds

The Iron Slag

by J.M. Mills

A small quantity of slag was recovered, comprising six pieces of smithing slag and three fragments of hearth lining which have slag-attached surfaces.

It is likely that the hearth-lining was produced during iron working, but by smithing rather than iron-smelting.

The quantity of material recovered, just 875 grammes, although indicating iron-working probably associated with nearby settlement, is not sufficient to suggest the presence of a smithy in the immediate vicinity. This type of material is not intrinsically dateable, however there is no reason why it should not be contemporary with the pottery from the site.

A single corroded fragment of iron was recovered. Its exact nature was not determined either by X-radiography or by conservation.

The Pottery (Fig. 5 and Table 1)

This unstratified group of pottery sherds has some similarities with other collections from the north of Dorset, such as those from Shaftesbury (Spoerry 1990, 139-141), Sherborne Old Castle (Harrison and Williams 1979, 91-102), Gillingham (Hawkes 1992, 131-3) and Kington Magna (Ross 1985, 35-9 and 1992, 261-3). From the fabrics and forms they would appear to date from the 12th to the 14th centuries and represent mostly cooking pot/storage jars with some bowls, and a few jugs in finer fabrics. The vessels appear to be hand-made, with wheel-finished rims. The sherds are not particularly abraded nor are they very large and there is no late- or post-medieval material. Most of the rims seem to come from different vessels, thereby indicating considerable numbers, but so many were only of the upper part of the rim, making it impossible to determine whether they were curving externally or internally. The cook pot/storage jar vessels had sagging bases.

The fabrics were divided into five broad categories by use of a hand lens, based on the size and type of the inclusions, all sherds being weighed and counted, (Table 1), but although the distinction between [3a] and [3b] was obvious on the heavy rims, differentiation was more difficult and, therefore, somewhat arbitrary, on small sherds. The firing of the pottery was generally oxidised with reduced cores. Scratchmarking was seen on a few sherds, mostly in [3a], and micaceous inclusions were sparse. A list of all rim forms appear in the archive and fabrics are described below from coarse to fine.

(Abbreviations: ext. = external; int. = internal; diam. = diameter; SM = scratchmarked;)

[1] Coarse, harsh fabric with mixed inclusions, more prominent ext., of sub-angular and rounded quartz grains up to 4mm diam. with angular and sub-angular flint, some calcined, less frequent, but up to 5mm diam. with occasional ferruginous inclusions. Colour: ext. terracotta, fawn core, light brown int. Although only two likely everted rim fragments, a base and seven sherds were identified, these are comparable to a hybrid fabric found at Kington Magna (ibid.) similar to Fabric A at Sherborne Old Castle (Harrison & Williams 1979, 93), but with quartz rather than flint predominating, and perhaps C12 or C14 in date. The similarity to a rim and sherd at Kington Magna (Ross 1992, 261-3, Fig. 5), is striking. Comparison has been made with the small number of sherds in the coarser range of Fabric 3 at The Waitrose Supermarket Site, Gillingham (John Hawkes, pers. comm. and Hawkes, 1992, 131).

[2] Slightly rough but occasionally soapy fabric, with mixed inclusions as in [1] above, but smaller sized and generally oxidised. Fairly frequent sub-angular and sub-rounded quartz grains and quartzite up to 3mm diam. and sparse sub-angular flint up to 2mm or rarely 4mm diam. with occasional grog. All sherds had numerous voids ext. and int. but lack of reaction to *Acid Hydrochlor. dil.*, even after testing crushed fabric, would seem to eliminate the presence of chalk/limestone inclusions. Colour terracotta/brown, core grey/brown, int. variable as ext., not noticeably burnt. Some six sherds were micaceous. Four of the rims were heavy and everted, typical of their date range and use as cook pots or storage jars (Fig. 5, No. 1). A rim form (Ross 1985, 39, Fig. 11, No. 4), possibly fourteenth century, and similar sherds, were recorded at Kington Magna, (ibid. 1992, 262, Fabric 2).

[3] A rough, pimply fabric, with frequent sub-angular and rounded quartz grains, some coloured, 1mm up to 3mm diam. with occasional grog and sparse flint up to 2mm diam. and odd unidentified inclusions. Colour: reddish/brown ext. and int., core grey, no parallel fabric, but more like Fabric D at Shaftesbury (Spoerry 1990, 140). Rim with hooked inside lip (Fig. 5, No. 2).

[3a] The most numerous group, a variation on [3] above, but without flint, producing a similar but finer fabric, with inclusions of abundant quartz grains up to 1mm and occasional larger fragments of grog. Colour:

TABLE 1: Pottery finds by context
(Abbreviations: R=rim; B=base; H=handle; S=sherd; unident=unidentified)

Site: Fabric:	Number					Weight				
	R	B	H	S	TOTAL	R	B	H	S	TOTAL
1[1]	2	1		3	6	20	20		25	65g
[2]	12	13		85	110	235	275		650	1160g
[3]	4			19	23	125			175	300g
[3a]	27	2	2	146	177	600	25	75	975	1675g
[3b]	5			22	27	145			160	305g
[4]	13			52	65	235			330	565g
[5]	1	1		42	44	20	40		200	260g
Unident				209	209				325	325g
2[3]				2	2				10	10g
[3a]	3	1		11	15	25	20		35	80g
[4]	1			1					10	10g
[5]				5	5				25	25g
2/3 Unident				21	21				30	30g
3[2]	1	1		11	13	5	10		50	65g
[3]	1			2	3	25			10	35g
[3a]	2			7	9	25			35	60g
[4]	1		1	8	10	15	25		25	65g
[5]	1			9	10	5			30	35g
4[3a/b]				13	13				50	50g
[5]				2	2				5	5g
5[3/4]				9	9				20	20g
6[1]				4	4				25	60g
[2]	1	1		10	12	5	10		35	50g
[3]	3			4	7	30			20	50g
[3a]	4		1	30	35	30		25	150	205g
[3b]	2			11	13	30			65	95g
[4]	1			4	5	10			25	35g
[5]	1	1		16	18	15	20		80	115g
Unident				46	46				75	75g
TOTALS					913					5830g

dull red or black ext., grey core, red/fawn or black int., three sherds 'wiped' int., one ? burnt ext. Twenty-eight SM sherds, noticeably criss-crossed, nine typical everted rims, one fire-blackened, one with grooved rim (Fig 5, No. 3), similar to a form at Wareham (Draper 1983, 67: Fig. 4, No. 24, C12-14). One small hammerhead bowl fragment. The large handle fragment, with thumb-pressing along the edges (Fig. 5, No. 7), may be from a curfew and a similar form was with pottery of C12 character at Gomeldon, Wiltshire (Musty and Algar 1986, 164-5). The fragment with an acute basal angle represents Professor Jope's 'West Country' type which was thought, because a number of sherds found had a hole in the side, to be a bee-skep base (ibid. and Jope 1952, 62), but this was refuted by Dr. Eva Crane (Ross 1985, 35-6). The use of the vessel as a chafing dish is an alternative suggestion and this form was also with pottery of a C12 character (Musty and Algar 1986, 164). It was, however, dated by Jope to the later eleventh or first half of the 12th century at Whittington, Gloucestershire (Jope, ibid.) A cookpot/storage jar sherd with flattened rim is similar to one at Wimborne (Hawkes 1992, 148-9, Fig. 4, No. 2, C12- C14).

[3b] Again a variation on Fabric [3a] above, but harder and fairly smooth, well-fired, frequent sub-angular and sub-rounded quartz grains about 0.5mm diam., occasional grog. Colour: buff ext. and int., dark grey core. Eight sherds blackened slightly. Four SM sherds. Everted rim fragment and hammerhead bowl, part blackened int. and ext., (Fig. 5, No. 6), similar to one at Wimborne (Draper 1983, 67: Fig. 4, No. 19, C12-C14). One other 'West country' type base fragment as above, SM underside (Fig. 5, No. 9). Very small sherd with cordon, too small to comment.

[4] Hard, fine, well-fired fabric, abundant quartz grains occasionally to 1mm diam. Colour: terracotta ext. and int., core grey. Hammerhead bowl, C12/13, similar to that described above. One sharply everted rim and a flat, slightly recessed rim. Single sherd, 80mm x 90mm, ? burnt black ext., dark brown int., slight SM, buff core, single stab slot through fabric, 15mm x 6mm, probably from a curfew. Six SM sherds.

[5] This fabric has been sub-divided into six groups which are described in detail in the archive, but overall the sherds are in a hard white, off-white or occasionally pink fabric, well-fired, with variable amounts of sub-rounded quartz grains, too small to measure, and sparse grog. Some are oxidised int. and ext. or on only one side. One sherd has traces of red slip (ii); a bowl rim, four sherds with patchy green glaze and two sherds with slight SM (ii), were thought to be similar to Laverstock fabrics (John Hawkes, pers. comm.) A rim and single sherd were micaceous and slightly abrasive to the touch (iii); one thumbed base (Fig. 5, No. 10) and sherds, with trace green glaze over grey ext., core and int. light terracotta (iv); thirteen sherds have traces of green glaze, one with chevron and thumbed pattern (v), (Fig. 5, No. 8), no exact parallel has been found for this jug fragment. Base ext. SM, int. traces khaki glaze, perhaps burnt.

Illustrated Sherds (Fig. 5

1. Everted rim cooking pot. Fabric 2.
2. Hooked-rim bowl. Fabric 3.
3. Everted rim cooking pot with grooved rim. Fabric 3a.
4. Small everted rim cooking pot with internal flange. Fabric 3a.
5. Small everted rim cooking pot with slight bead rim. Fabric 3a.
6. Hammerhead bowl. Fabric 3b.
7. Handle fragment possibly from a curfew, grooved with thumbed edges. Fabric 3a.
8. Sherd of jug fabric, traces green glaze, with groove, zig-zag and stabbing decoration. Fabric 5(v).
9. Sherd of West-country type with acute basal angle. Fabric 3b.
10. Base of jug, thumbed with traces green glaze. Fabric. 5(iv).

Discussion

This discrete assemblage of medieval pottery sherds is composed of several different types of fabric, and the vessels appear to be heavy and clumsy, and fairly small. Medieval fabrics from Shaftesbury are generally thought to be quartz tempered (Ross 1985, 37), with the Upper Greensand as a likely source, while it is suggested that pottery with flint inclusions may originate to the west of Sherborne from the clays of the Yeo valley, as shown at Sherborne (Harrison and Williams 1979, 96). This, however, is not entirely borne out by the fabrics from Melbury Abbas only some 3.5 km south of Shaftesbury, where they are both flint and quartz tempered. In the absence of evidence of local potters or kilns, the importance of Shaftesbury and its Abbey as a trading centre over a wide area, may reflect this variety of styles and fabrics, which is indeed apparent from the two fragments of 'West country' type vessels, whose distribution covers Bristol and counties to the west (Jope 1952, 65) and with the presence of a few sherds of Laverstock type, which may also include the scratchmarked material (Spoerry 1990, 139).

The implication of flint-gritted wares may suggest the presence of earlier material due to its similarity with fabrics from Kington Magna of the 12th or early 13th century (Ross 1985, 37). The paucity of glazed wares is also paralleled, which is thought to indicate the relatively lowly status of the site, and has been noted elsewhere from comparable assemblages. No sherds from the Hermitage kilns were recognised.

In summary, dating for coarse cookpots and possibly the 'West country' type fragments would seem to be 12th to early 13th century, with the flint-gritted fabrics originating to the west

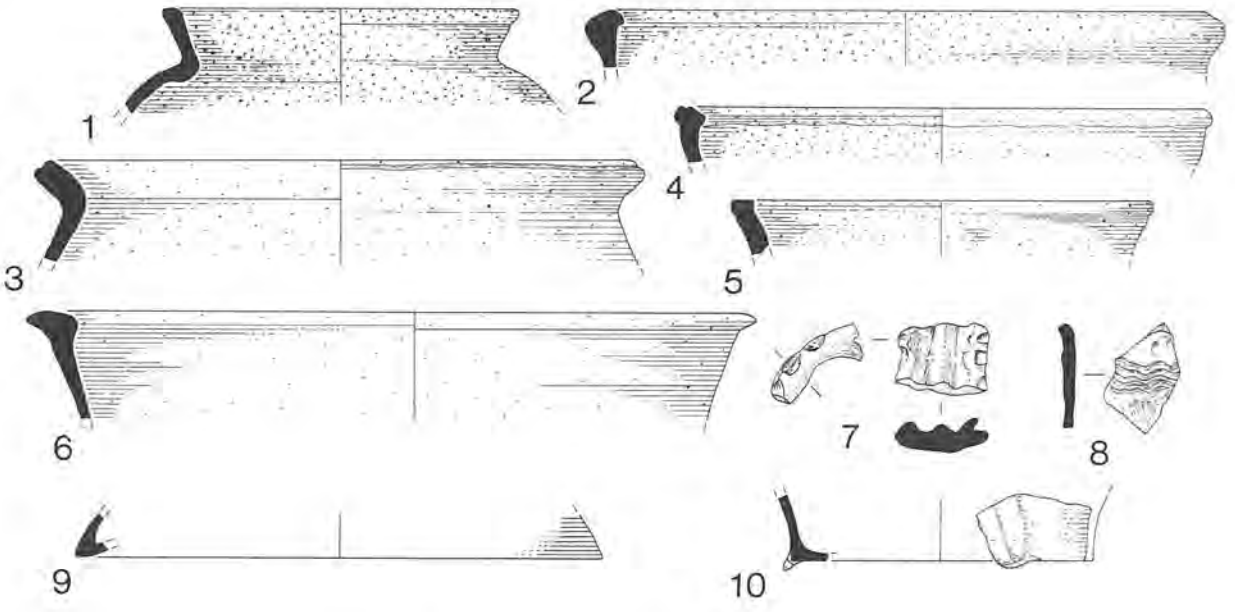

Figure 5: Melbury Abbas: medieval pottery at ¼ reduction (drawn by Peter Bellamy).

of Sherborne, from an unknown source. A similar date can be given for the hammerhead bowls, a form found at Wimborne as described above, although in a slightly different fabric. The Laverstock-type fabric in a Wiltshire context is likely to come from the late thirteenth-century. The presence of a local source remains increasingly likely and correspondingly elusive.

The Animal Bone and Shell
by Dale Serjeantson,
Director, Faunal Remains Unit,
Department of Archaeology
University of Southampton.

The collection of bones weighing 725 g comes from a mixture of food animals and others. It includes cattle, sheep and pig bones as well as those of horse and dog. The sheep bones show evidence of dog-gnawing.

The bones are compatible with the medieval pottery, but need not be contemporary with it.

Two fragments of egg-shell, roughly 2mm across, are thought to be from a swan's egg, each having what appears to be a small, apparently drilled hole near the edge, about 1mm diameter. In the absence of any other reason, it is suggested that the holes may be the result of shooting, using lead shot. The emerging cygnet makes a larger hole, about a quarter of an inch across (c. 7mm), and no predator is known which would produce such fine holes. (Kate Hebditch and the Warden, Abbotsbury Swannery, pers. comm.)

Acknowledgments
The author gratefully acknowledges the keen observation and initiative of Mrs. Hilary Griffiths in finding and reporting this pottery and for her work in processing the artefacts. She also appreciates the permission and help of the landowner, Mr. J. Giles, in carrying out this project and the access to their fields allowed by other landowners, notably Mr. C. Kay, Mr. D and Mr. N.D. Garrett, Mrs. R.M. Gulliford and Mrs. A.M.I. Meaden.

She thanks Peter Bellamy for drawing the pottery, Dr J. Bettey for providing details of 17th century grain yields, Mrs S. Dudman and Melbury Abbas Womens' Institute for information on the parish and for producing the original records of their parish history, Laurence Keen for advice on the Saxon boundary and permitting the transcription of the Cartulary of Shaftesbury Abbey to be studied, Jo Mills for her report on the Iron Slag, David Reeve for much help in discussing the documentary sources, Dale Serjeantson for commenting on the animal bone and Ann Smith for transcribing the Lease of 1518-19.

Others who have been most helpful in various ways, whom she also thanks are:- Katherine Barker, Bob Breach, Peter Cox, Jo Draper, Teresa Hall, John Hawkes, Elinor Murphy, Claire Pinder, Barrie Wiggins, Peter Woodward, the staff of the Dorset and Wiltshire Record Offices and the Dorset County Reference Library.

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Abbreviations:
Dorset Proceedings, - Proceedings of the Dorset Natural History and Archaeological Society
AMR - Ancient Monuments Record
DCC - Dorset County Council
DCM - Dorset County Museum
DRO - Dorset Record Office
WRO - Wiltshire Record Office

THE ARCHIVE
All finds will be deposited in the Dorset County Museum following publication, with maps, drawings and relevant material.
Site references:- MAb (1) - (6).

Witchampton: village origins

TERESA HALL

Fieldwalking in Bushy Park Field, Witchampton, in 1990, confirmed the site as a deserted area of the village of Witchampton. The pottery evidence suggests habitation on the site from about the time of the Conquest, declining from the 14th century onwards. It is suggested that the double row of tofts was the third element in the development of the village, the original focus of which was adjacent to the site of a Romano-British temple.

INTRODUCTION

In 1987 the late Norman Field drew to the attention of the Dorset Archaeological Committee an aerial photograph of Bushy Park Field, Witchampton, showing a possible shrunken area of the village (see Plate 1). The aerial photograph had been taken in 1968 following ploughing, at a time shortly after the clearance of scrub and a small area of woodland shown on the 1962, 6" OS map of Witchampton. Following this, the field was put down to pasture. In 1990 the author noticed that the field had been ploughed, and, with the kind permission of the landowners, Commander and the Hon. Mrs Marten, and the co-operation of the tenant farmer, Mr Sanders, a systematic collection survey was undertaken in the field. This report looks at the possible origins of settlement in Witchampton, the results of the field survey and its implications.

VILLAGE ORIGINS - THE ARCHAEOLOGICAL AND HISTORICAL EVIDENCE

Research on village origins

Village formation is currently recognized as a phenomenon of the 9th to 13th centuries and may have arisen under many different circumstances. It is, however, being increasingly connected with the change in agriculture that occurred with the adoption of the open field system (Fox 1981, 101; 1992, 36). In addition it is now recognized that settlement is not as static as it was once considered to be. Christopher Taylor has shown that village settlement shifts about around different foci often leaving abandoned areas within the village (Taylor 1983, 151-174). Occurrences of shrunken settlements are fairly common though these cases may sometimes be difficult to distinguish from villages where there has been settlement shift. Planned areas of settlements have been recognized, sometimes consisting of whole villages and in other cases of parts of villages. In the north of England they have been dated to the 11th to 13th centuries and are seen to be the result of a policy of honorial replanning after the harrying of the north (Sheppard 1976). Less analysis has taken place in the south, but in Somerset work on the village of Shapwick suggests that planning was undertaken by Glastonbury Abbey in the 10th-century. Adjacent villages also in the ownership of Glastonbury Abbey show similar signs of planning indicating that it was instigated by the Abbey, though the circumstances of the laying out of the villages are not yet known (Corcos 1983, 51; Aston 1989, 127-8). Much work has been done on the analysis of settlement patterns by Brian Roberts, but such systematic analysis has not yet been attempted for Dorset (Roberts 1987). The main body of work on deserted medieval settlement in Dorset consists of excavation of the deserted village of Holworth and of the Leaze, a planned extension of Wimborne. At Holworth settlement appeared to have commenced in the 12th century. Rahtz concluded that the appearance of the earthworks delineating the tofts was 'in no way the result of deliberate construction... They are merely the accumulation of soil around

Plate 1. Aerial photograph of Witchampton showing Bushy Park Field after ploughing in 1968.

pre-determined boundaries, in this case the boundary ditches of the 13th century A.D.' (Rahtz 1959, 137). Norman Field concluded that the Leaze in Wimborne had been laid out in about 1200 probably by the Dean of Wimborne (Field 1973, 59). Both these areas of deserted settlement made a late appearance on the scene and neither were successful in the long term.

With these factors in mind, this study will look at the archaeological and historical evidence for the village of Witchampton and its parish before moving on to examine the topography and possible origins of the village in the light of evidence from Bushy Park Field.

Witchampton - the village and its parish (Fig. 1)

Witchampton is situated at the midpoint of the eastern edge of its parish on the western bank of the River Allen about 6 km north of Wimborne Minster. The village is sited on the springline, on rising ground to the west of the river, partly on the gravels of the valley bottom and partly on the chalk. The parish of today runs from the river up onto the chalk and takes in Hemsworth which was formerly divided into three areas, two of which were detached portions of Shapwick parish, the other portion being a detached part of Witchampton (DRO T/WIT, T/SPK). A Roman road, the Ackling Dyke, part of which is still in use, cuts across the centre of the parish in a north-south direction. Whilst lying just to the east of the Roman road (0.7 km), Witchampton is a focal point for roads and Good shows that in medieval times it was connected to the Tarrant valley to the west, Moor Crichel to the north, Shapwick and Wimborne to the south and across the river to Hinton Martell in the east (Good 1966, 66,67,75, Map 19).

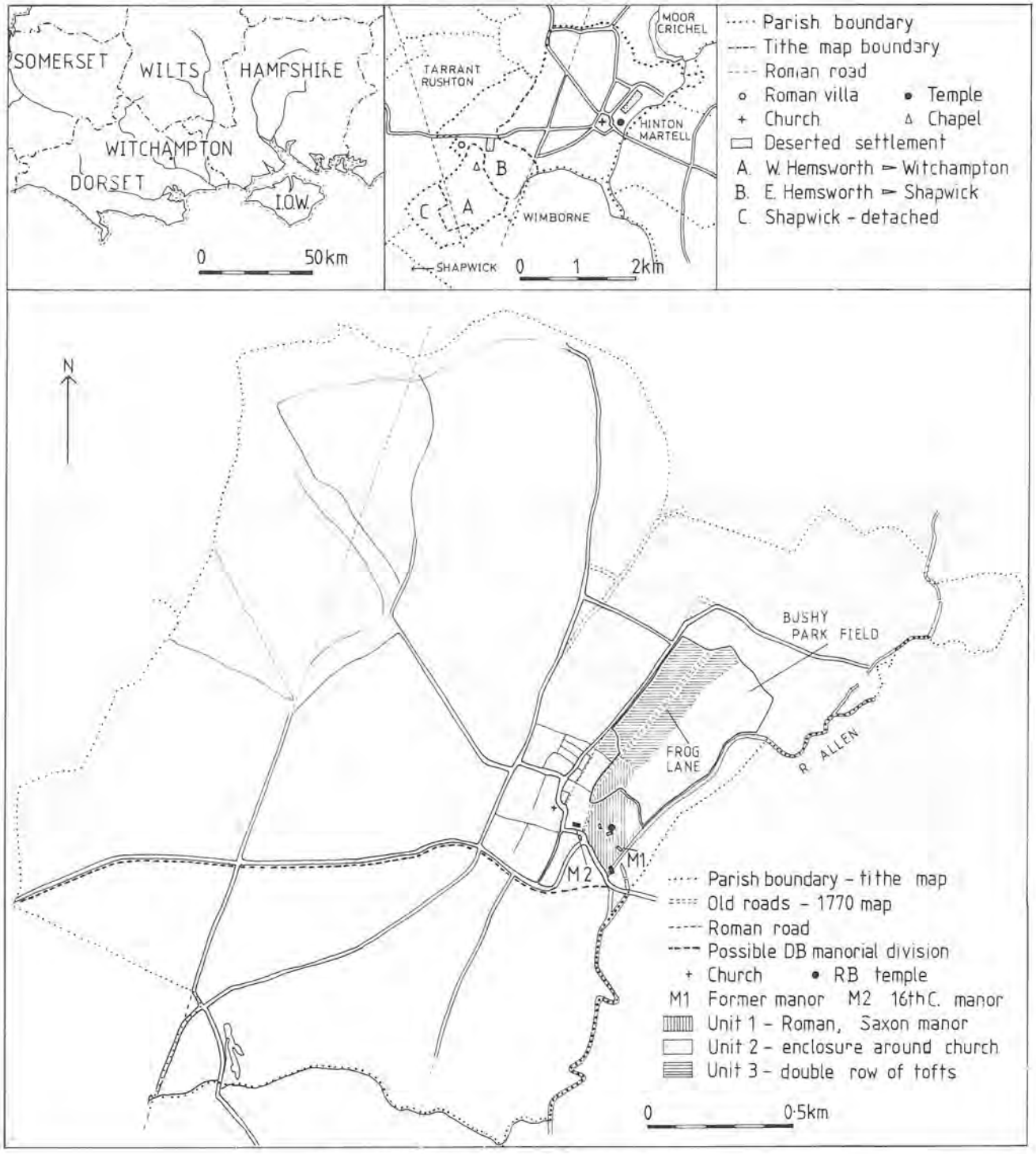

Figure 1. Witchampton; location, parish and village.

Archaeological background (Fig. 1)

The earliest archaeological evidence from within the village comes from the Raglans Court development where Bronze Age cremation urns and a scatter of worked flint were revealed during building works (Hall, 1988). Some Roman material was also present, and this may have originated from the nearby Roman site in the grounds of Abbey House. The excavation of the Roman site uncovered evidence of settlement from Roman times through to the middle ages. The Roman remains comprised a probable temple, and some settlement remains with an oven. Burials, said to be from a context later than the Roman levels, were also found (Sumner 1924). The medieval remains consisted of a building from which came several whalebone chessmen of questionable date but possibly of 9th to 11th-century origin, and a coin of Henry II (Dalton 1928, 77; RCHM 1975, 110). Adjacent to this site, is the site of the former manor house, partially excavated in 1961 by Liverpool College of Building, and dating from the 13th century (RCHM 1975, 105). Roman building material was reused in the construction of the manor. In the 16th century, a new manor house was built, away from the river, opposite the church. Previous archaeological evidence, therefore, suggests that the core of the village initially centred around the springs where the Roman temple had been constructed. The burials, possibly of Dark Age date, may indicate continuity of use of the area from Roman through to medieval times.

Elsewhere in the parish a Roman villa was uncovered at East Hemsworth in 1905, about 0.7 km west of the deserted medieval village (Fig. 1). The villa lies between the Ackling Dyke and the Roman road from Hamworthy to Bath. It appears to have been destroyed by fire (RCHM 1975, 110). The extent of the estate of the villa is unknown. The settlements of East and West Hemsworth were relatively minor in 1086 (see below) and there is no evidence for the continuity of an estate centre at Hemsworth.

Place-name

Recorded as *Wichemetuna* in Domesday Book, the place-name is ambiguous and could mean either, 'farm of the dwellers at a place called Wicham,' or 'farm of the dwellers at the wic'(Gelling 1967, 104). However, Dr Gelling considered that the village's proximity to the Roman-road, villa and temple sites placed it in the *wicham* category of place-names. In 1967 she suggested that *wicham* sites might be those of the early Germanic settlers brought in to protect the population at the end of the Roman period, *wic* being coined from the Latin *vicus*, but she noted there was insufficient evidence to support this. Because of the distribution of *wicham* place-names, none of which were then known in the south-west, and the absence of the name in literary sources, Dr Gelling postulated a date of 600 for the cessation of the formation of this name. Since then, Dr Costen has found three Wickham place-names in Somerset which also fit into this category, though none of these names refer to existing settlements. He suggested that the sites may have been pioneer Anglo-Saxon settlements in British held territory (Costen 1992, 58). However, the work of Dr Rodwell cited in Gelling, to the north-east of London showed *wichams* in that area associated with Roman sites that had possible sub-Roman occupation but no signs of early Anglo-Saxon habitation. This led him to suggest that *wichams* may have been settlements of non-Germanic peoples given the name *wicham* by their Germanic neighbours (Gelling 1978, 70-71). The *wicham* name, therefore, could refer to village or town settlements which had continued to be occupied, though on a lesser scale, from Roman times at least until the Saxon conquest period. The evidence from the different *wichams* suggests that the occupation involved was not of the solitary farmstead type. The sub-Roman burials from the temple site suggest the possibility of continuity of settlement at Witchampton supporting this interpretation. Work in progress by Norman Field when he died, pointed to the element *wic* being associated with farms of British peoples (Field *c.*1992) and Costen suggests that *wic* settlements may be those of the sub-Roman population (Costen 1992, 66). The addition of the element *ham* presumably classed the settlement as one of larger size than the farm or wic. East Dorset would have been a frontier zone between *c.*450 and 650. The *wicham* part of the name may have originated in this period with the ton element being added after the Saxon conquest of the area (Field 1988). Saxon burials in the neighbourhood at Knowlton and Long Crichel suggest some infiltration 'perhaps late in the second half of the sixth century' (Taylor 1970, 43) Further west, the *wicham* name may have continued to be used with the westward Saxon advance accounting for its presence in Somerset.

The historical record

A sketchy picture of Witchampton and its population can be drawn from the Domesday record, and later taxations hint at the population numbers in the 14th century. In 1086 Witchampton was divided into two holdings (Thorn and Thorn, 1983). The major one, comprising four hides, was held by the Queen; TRE it had been in the hands of two un-named thanes. Five villeins and 15 bordars are mentioned, along with two slaves on the demesne. The other holding, of two hides, was held by Hubert from the Count of Mortaine and it also had been held by an un-named thane in Edward's day. One villein and three bordars are mentioned, making a total of 26 recorded persons on the two holdings, two of whom were slaves. Queen Matilda's lands came to form part of the Honour of Gloucester which passed to the Clares, Earls of Gloucester and Hertfordshire, early in the thirteenth century. A Parliamentary writ of 1316 certifies John Matravers and John de Cormaylles as lords of the township of Witchampton, suggesting that it was still composed of two holdings at that date (Drew Index). In 1347 John Mautravers was granted the right to hold a weekly market and yearly fair in Witchampton (Drew Index), quite a late date for a market grant and probably not very successful in its opening years coming just on the eve of the onset of the Black Death. The Subsidy Rolls of 1327 and 1333 both record twenty-two persons paying tax and the hearth tax returns of 1664 record a total of 33 taxpayers (Meekings 1951, 121). Neither the Domesday record nor these early Subsidy Rolls can be taken to indicate exact numbers of villagers. However they do give us a glimpse of the number of people who paid tax in Witchampton at these dates and these seem to have remained fairly constant from 1084 through to the 14th century, increasing by a third to 33 by the 17th century.

The church

The church's first mention occurs in 1278 when the king made the presentation as the church was temporarily in his hands (Drew Index). A more interesting reference occurs from 1288 when the rector of the church was obliged to find a chaplain to celebrate weekly in the chapel within the court of Edmondsham (Drew Index). A few years later, Witchampton is recorded in the 1291 taxation as receiving a portion of £2 from Edmondsham, a fee which Hutchins saw as payment for burial rights (Cooper 1834, 178; Hutchins 1868, 427). In the 1340 Inquisition Nonarum Witchampton was recorded *cum capella de Edmondesham* with an income of £8 13s 4d (Hutchins 1868, 480). Edmondsham was also entered separately as *parochia de Edmondesham* but its income was a meagre 20s. Before 1086 both Edmondsham and Witchampton had been farmed by Schelin from the Queen (Williams 1968, 28). In 1288 Edmondsham was recorded as being held by John Matravers who also held Witchampton. It is probable, therefore, that the two manors continued to be farmed together, and this may well account for the dependency of Edmondsham church on Witchampton. The dependency is unlikely to be a sign of Witchampton having had minster status: it does not display other characteristic signs such as large parish size, high value in the ecclesiastical taxations etc.(Blair 1985,1988; Hinton 1987). The present church fabric dates from the 15th century and a font of 12th-century date survives (Anon. 1914, xxix). The font is obviously portable so could have been moved to the site from elsewhere, but there is no evidence to suggest that the earlier church stood anywhere other than on the present site.

East and West Hemsworth

East and West Hemsworth now form part of the parish of Witchampton (see Fig. 1) and it is important to establish their earlier relationship. Can East and West Hemsworth be distinguished in the Domesday text? Two Hemsworths are entered in Domesday Book both with a recorded population of four and each taxed at one hide (Thorn and Thorn, 1983). Dr Williams does not differentiate between the two, describing both entries as East and West Hemsworth (Williams 1968, 86, 101). The first Hemsworth entry was held from the Count of Mortain by Hubert who was also a tenant of the Count at Witchampton. The other Hemsworth was held by Humphrey the Chamberlain whose lands went on to form part of the Honour of Gloucester and had been given to him by Queen Matilda (Thorn and Thorn, 1983). Both had been held by free thanes TRE. The tithe maps divide Hemsworth up into three different portions (see Fig. 1) (DRO T/WIT, T/SPK). One of these, West Hemsworth, is recorded as a detached portion of Witchampton parish, and the other two, one of which is East Hemsworth, are detached parts of Shapwick. As West Hemsworth was a detached portion of Witchampton parish it would seem to be the more likely candidate for ownership by the Count of Mortain. There are other instances in East Dorset of detached areas of parish being in the same ownership as the main body of the parish in the Domesday record. As late as the 13th/early 14th centuries parts of both West Hemsworth and Witchampton were recorded as being held by John Cormaylles (Thorn and Thorn, 1983; Drew Index). One piece of evidence that might support the argument that the Count's holding was West Hemsworth is found in the Domesday description of the lands: Humphrey's included two acres of meadowland whereas the Hemsworth of the Count of Mortain had none. There is only one stream in the area and that is on the eastern boundary of East Hemsworth. The meadow, in all probability, would have lain next to the stream. Thus it seems likely that Hubert held West Hemsworth of the Count, and Humphrey the Chamberlain held East Hemsworth.

The relationship between East and West Hemsworth and the parish of Witchampton must be examined. Earthwork remains indicate that East Hemsworth developed into a small village (RCHM 1975, 109). West Hemsworth, however, shows no signs of having developed. After Domesday Book neither settlement has any further population records. A church is recorded in 1251 in West Hemsworth. In 1287 it was worth only 40s a year, and this low value led it to be recorded as *non excedit* in the taxation of 1291 (Drew Index; Cooper 1834, 178). In the Valor Ecclesiasticus of 1534 the church is described as a free chapel. As West Hemsworth paid its tithes to Witchampton church it is probable that it only ever had chapel status and was totally dependent on the lord of the manor with no income from tithes. The relationship of East Hemsworth to Shapwick is more difficult to explain, Hutchins records that the north aisle of Witchampton church belonged to the inhabitants of East Hemsworth (Hutchins 1868, 478). If this was the case it is difficult see why they were paying tithes to Shapwick church. Shapwick lay within the Wimborne Minster *parochia* which has been reconstructed by Laurence Keen (Keen 1984, 226-7). Most of the western half of Wimborne *parochia* was royal demesne in 1086. The ownership of the two Hemsworths seems rather to lie with the owners of the lands of Witchampton: both the Queen and the Count of Mortain held land in both places. This may point to both Hemsworths originally having been part of Witchampton parish, but retaining some independence as is suggested by the place-name evidence. Dr Costen has shown that in Somerset 'worth' settlements can probably be seen as small enclosed farm units in existence in the 7th and 8th centuries and surviving as such after the introduction of the open-field system in areas not suitable for open-field farming (Costen 1992, 93,95). Hemsworth, therefore, whilst part of the parish of Witchampton was probably not originally part of the village and its open fields but a distinct settlement. East Hemsworth, at least, appears to have formed, in Midland terminology, a separate township within the parish.

The pattern of medieval estates

Drew, and later Taylor, have given us a picture of parishes on the chalk in Dorset where narrow chalk valleys are divided into separate land units stretching from one watershed to another across the valley, with settlement in the valley bottom as at Charminster (Drew 1948; Taylor 1970, 49-59). Wider valleys are divided from the river to the watershed. Often, the parishes can be shown to have had more than one manorial unit within them: Winterborne Clenston once comprised Philipston, Clenston and Nicholston. The partitioning of valleys in this fashion suggests that the divisions were originally part of one larger unit. This pattern is not immediately obvious in the Witchampton area. Witchampton itself runs from the river up onto the chalk and was divided into two units after 1086: before that it had been three. Fig. 1 shows the probable division of the parish after the redistribution of land following the Conquest. Hemsworth, as discussed above, has one unit, West Hemsworth, that does not at first sight fit the pattern. It is possible that this meadowless holding was farmed in the early post-Conquest period in conjunction with the part of Witchampton also held by Hubert, an arrangement that would have given the area access to meadow. Whether such an arrangement existed before the Conquest is not discernible. The idea behind the divisions (the distribution of a share of water, meadow, arable and pasture) can be seen in action in most units but they are not as uniform as in the chalk valleys because of the local topography.

Summary

The historical evidence, therefore, paints a picture of a village divided after the Conquest into two holdings, the larger of which held the advowson of the church. Numbers of villagers appear to have remained fairly static between 1086 and 1333. Presumably the Black Death would have led to a decrease in numbers, but this was not terminal for the village as, by the next indication of number in the 17th century, the population had grown by about a third from the pre-plague figures. The village of Witchampton, therefore, might be expected to have experienced some shrinkage in the 14th century, but this may well be masked by its later re-growth.

THE FIELDWALKING AND TOPOGRAPHICAL EVIDENCE

Evidence from the aerial photograph

The aerial photograph (Plate 1 and Fig.2) shows about twenty tofts set out along both sides of a lane running north from the village of Witchampton. Also represented are some of the house platforms which show up as small areas of lighter-looking soil. The large white areas are of sterile gravel upcast, and the exceptionally dark areas in the south-east corner are of dark peaty soil which looks as if it has been submerged at some time. The very fine white dendritic lines that cut across the field correspond to the field drains laid and mapped in 1968 (Marten,1991).

Summary of the fieldwalking evidence (Fig.2)

A small quantity of Romano-British pottery and tiles was scattered, fairly evenly but thinly, over the western part of the field. Nowhere was there sufficient material to indicate that Romano-British settlement occurred within the area walked and the pottery present was probably spread across the field as a result of farming practices. The vast majority of the pottery collected was medieval and dated to the 12th and 13th centuries, occurring in very localized concentrations within the area of the tofts. The small collection of early medieval pottery came from these same concentrations implying that the laying out of the settlement dated from at least the same time as the early pottery. This is problematic as there is not a firm date for this fabric type from any Dorset context. The date generally favoured is 10th/11th century which unfortunately does not tie the foundation of the planned area to one side or other of the Conquest. However this is a potentially solvable problem as similar material from a securely

dated context will eventually come to light. The amount of post-medieval pottery from the settlement is considerably less than the medieval material. The fact that the post-medieval pottery tends to concentrate in certain areas and is absent from others where there was medieval pottery suggests rather that the pattern is a reflection of the process of gradual desertion of the tofts. Post-medieval pottery was present in some areas where there was little earlier material.

Topography

The topography of the village has been examined with aid of estate maps, and the tithe and enclosure maps (DRO Photocopy 1/37, Photocopy 346, T/WIT). Together with evidence from the ground and the aerial photos, these suggest a composite village structure with three main elements (Fig. 1). The first unit lies around the Roman remains and the former medieval manor. Earthworks in the field between the early manor and the road suggest that this area may have extended towards the road to its south. Soil marks on the aerial photograph (Plate 1 and Fig.2) suggest that some settlement was established just to the north of the manor in what is now the south-western part of Bushy Park field. The second unit is a large rectilinear enclosure on the rising ground to the west of area one. It is surrounded on three sides by roads which are deeply sunken in places and covers an area of approximately 30 acres. The fourth side is composed of boundaries shown as hedges on the 1770 map. The enclosure appears to centre on the church which is sited on rising ground in the middle of its eastern half. One of the fields in the south-western corner was called Church Close and it may be that the area enclosed was originally the glebe of the church. The roads converging on Witchampton are mostly diverted around the outer edge of the enclosure giving it the anachronistic appearance of a ring-road built to keep traffic out of the area and, indeed, the

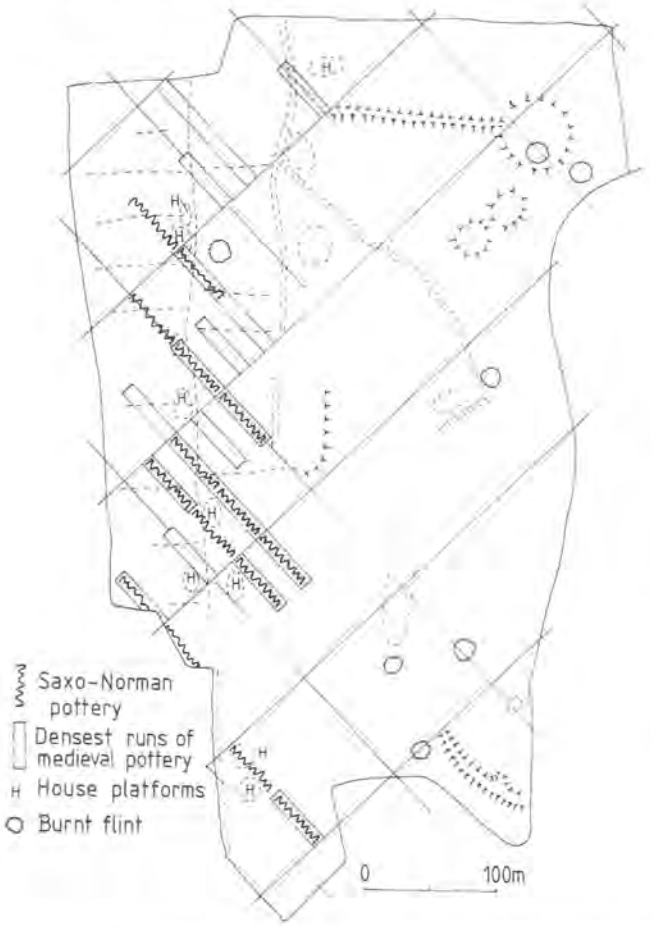

Figure 2. Summary of evidence from the aerial photograph and fieldwalking.

presence of the road in this form implies that its function was just that; to isolate the area within. The northern part of the eastern boundary is now defunct as a road but is shown on the 1770 map as Frog Lane (Fig. 1). This lane continues northwards to form the backbone of the third unit, the deserted area of settlement. Frog Lane is still evident as a sunken feature in the field. As can be seen in the aerial photo and on the ground, the tofts of the third unit were laid out on either side of Frog Lane with the dwellings at the front of the plots. The northern part of this area of the village is at present very waterlogged (Marten 1991). Whether this had always been the case is undeterminable. It is possible that woodland clearance upslope of the settlement would lead to an increase in the water run-off. Taylor notes that often planned settlements are not in very good positions; 'some of the sites of planned villages look positively hostile' (Taylor 1983, 148).

The internal layout of the area of the Unit 2 shows signs of having changed. Frog Lane, its eastern boundary, appears originally to have been the main route north after crossing the river. The southern end of Frog Lane is now blocked by the grounds of Abbey House and there is no longer any right of way. This suggests that the removal of the manor from the river to its present position led to the closure of the southern part of the lane and to the divergence of the road through the enclosed area of Unit 2 and along the back lane of the planned unit. Earthworks immediately to the west of Frog Lane inside the area of the enclosure show that settlement fronted onto Frog Lane rather than the present road within the northern part of the enclosure. The removal of the manor and closure of Frog Lane seem also to have led to a swing in the focus of the settlement. Ivy House boasts a date of 1580 and the Old House is probably also of 16th-century date. The enclosure shows signs of having been divided internally by two north-south lines and at least two east-west ones. Within the enclosure, the road which runs north to form the back lane of Unit 3, shows signs of having been diverted to the west of its original course. The 1770 map indicates that the development to the east of the road just to the north of the church is infill and that the road originally followed the line of the eastern side of these plots, possibly splaying out into a market area just north of the church. Most of the area within the enclosure is not built on and it seems probable that it was not settled originally but formed part of the endowment of the church.

These three distinct areas of village seemingly have been preserved as the result of differences in ownership. The distance between the area of the church and former manor suggests that if this was founded as a proprietary church (which is indicated by its ownership by the Clares), it must have been reasonably independent. Dr Blair has illustrated two types of proprietary foundations in Surrey: those founded for the convenience of the resident lord, and those founded by an absentee landlord for his tenants. Topographically these can be distinguished by the location of the church which is usually adjacent to the manor in the former case (Blair 1991, 135). The church in Witchampton dominates the area within the enclosure and it may be that the church controlled the area up until the sixteenth century when the manor moved inside it leading to the structural changes observed.

Suggested evolution

Within the parish unit there were two post-Conquest holdings. The larger of these is associated with the manor in the village. The second holding was linked with West Hemsworth and the construction of a chapel at West Hemsworth suggests that that was where the second manor was sited.

The initial settlement area of the village of Witchampton (Fig. 1, Unit 1) appears to have been around the Roman settlement or *wicham*. The place-name and the post-Roman burials suggest that this may have been a British village. That this then became the Saxon estate centre is evinced by the presence of the Saxon chessmen in the early medieval buildings - the chessmen would be an unlikely peasant possession, and by the situation of the later 13th-century manor. The next stage of development is by no means obvious but may well have been the

church with its large enclosure (Unit 2) which seems to lie adjacent to the area of the manor and Roman settlement. The planned double row of tofts (Unit 3) along the former road to Crichel has the appearance of an element that has been tacked onto the other two units with the implication that the church pre-dated the tofts. If the enclosure around the church was originally its glebeland, its consolidated form might suggest that it was founded before the creation of Witchampton's open-fields. The dictating role that the outer edge of the enclosure plays in the road system certainly suggests an early date for the establishment of the enclosure. A more precise date for the early medieval pottery may help to tie down the foundation date of the planned double row of tofts but there is the possibility that it may date from an earlier aceramic period. The pottery suggests that this instance of planning took place at an earlier date than those previously investigated in Dorset.

Archaeological implications

Witchampton has great potential for future archaeological investigation. As well as the possibility of revealing continuity of Roman to Saxon occupation, it may have existed as a border settlement between Saxon Hampshire and the sub-Roman southwest for around 200 years. The historic shifts of settlement within the village may have encouraged the preservation of archaeological evidence. Certainly the site of the planned extension deserves more attention if it is not to be left completely undisturbed and excavation of one or more of part of the tofts in the better preserved area would be very fruitful.

FIELDWORK REPORTS

Fieldwalking

The field was walked on a grid, based on the National Grid, of 25m intervals with transects of 50m. Each collection unit was allocated its own context number. As each transect covered an area approximately 2m wide, a total of *c.*8% of the field surface was sampled. At the time of walking the crop had emerged in places but was generally no more than 5cm in height. The surface visibility of finds was good. A variety of soils were present. Some areas were composed of what appeared to be gravel upcast with no soil; others were of thick peaty soil. Virtually all the field lies over valley gravels with the underlying chalk apparent only in the very western edge of the field.

The toft divisions which show up so clearly on the aerial photograph are marked in the field by gentle dips between the slightly raised tofts, some more easily determined than others. The backbone of the settlement, Frog Lane, still forms quite a noticeable feature. In the northern part of the field the eastern back lane is also apparent as a slight earthwork in places. To either side of Frog Lane, slightly raised patches of gravel, approximately 10x5m in area, with large patinated flint nodules, mark the former sites of houses (see Fig.2). These areas were less readily distinguishable at the northern end of the settlement.

Pottery distribution

The scatter of Roman pottery and tile was fairly general across the western side of the field and was probably a result of manuring, suggesting that ploughing took place on the lighter chalk soils avoiding the heavy peat of the water meadow area. This is a more likely explanation than the covering of Roman sites near the river by colluvium as the mesolithic flints appeared to be in relatively undisturbed groupings over the water-meadow area.

The early medieval and medieval pottery was distributed fairly evenly across the area of tofts apparent from the aerial photos, with the densest concentrations of medieval pottery towards the central lane of the settlement, around the house platforms. The house platforms were most apparent at the central and southern end, suggesting that the area had been less disturbed in the past. Fabric 1, which was probably 12th-century, was less common in the northern part of the field, whereas Fabric 5, of the early post-medieval period, was less concentrated in the central area of the settlement. The 17th/18th-century Verwood pottery, some of which appears to have come from the Horton kiln, thins out towards the north end of the settlement, perhaps implying that desertion took place from the end furthest from Witchampton first, but it has to be borne in mind that *c.*1770, Isaac Taylor's map was depicting this area as small closes with no settlement marked.

POTTERY REPORT

Introduction

A total of 1614 sherds weighing 28431g was collected. This was sorted into fabric types, 18 in all (Table 1). The majority of the sherds (over 82%) were medieval in date, but the Iron Age, Romano-British and early medieval periods were also represented in small quantities. The post-medieval pottery accounted for 16½% of the assemblage. The breakdown of the pottery into fabric types and period is shown in Table 1. Virtually all the pottery was tempered with quartzite sands. Fabrics 1, 2 and 3 were very similar, differing mainly in the amount of tempering present. Together they accounted for 90% of the medieval assemblage.

	no. sherds	weight	% of period	% of total by period
Iron Age				
12	1	11g	35.48	
13	1	20g	64.52	
sub-total	2	31g		0.11
Romano-British				
Samian	1	14g	8.92	
New Forest	1	9g	5.73	
Black Burnished	5	68g	43.32	
10	2	31g	19.74	
11	3	35g	22.29	
sub-total	11	157g		0.56
Early Medieval				
6.1	9	140g	71.43	
6.2	5	43g	21.94	
6.3	1	13g	6.63	
sub-total	15	196g		0.7
Medieval				
1	133	2476g	10.71	
2	770	12713g	53.97	
3	424	6312g	27.30	
4	110	1905g	8.02	
sub-total	1437	23406g		82.32
Late medieval/post-medieval				
Verwood	79	3602g	77.61	
5	66	1000g	21.55	
Tudor Green	3	36g	0.78	
Stoneware	1	3g	0.06	
sub-total	149	4641g		16.32
TOTAL	1614	28431g		

Table 1. Pottery totals by fabric type.

Fabric types

Iron Age pottery

Two sherds of IA pottery of different fabrics were recovered.

Fabric 12. Hard fabric. Fine micaceous sands; occasional crushed chalk; tiny vesicles. Sandy feel; fracture hackly; wiped internally; unoxidized.

Fabric 13. Hard fabric. Fine quartzite sands; micaceous; occasional iron oxide. Smooth sandy feel; fracture hackly; exterior and interior buff, core dark grey.

Romano-British

Eleven sherds were identified, two of which were finewares; one Samian and one New Forest colour-coated. The remaining sherds were coarsewares in three different fabrics; one, Black-Burnished, of which there were four sherds, and the other two described here as Fabrics 10 and 11.

Fabric 10. Hard fabric. Fine micaceous sands. Rare iron oxide; occasional grog. Unoxidized; wiped externally.

Fabric 11. Soft fabric. Very fine sandy fabric. Occasional chalk <1mm. Light grey.

Early Medieval
Three fabrics were identified which appear to be generally recognized as being earlier than the 11th century. Fabric 6.1 is similar to Greyhound Yard 1 (Davies, Draper and Woodward 1993, 290) and Wimborne A (Poulsen 1984a, 81).

Fabric 6.1 Soft coarse sandy-based fabric. Moderately common rounded and sub-angular quartz <2mm; occasional crushed chalk/crushed shelly limestone fragments; singular calcined flint <3mm; very occasional iron oxide. Soapy feel; external surface oxidized red-brown, core and internal unoxidized; fracture laminated in places; surfaces wiped, frequent vesicles. Illustrated, Fig. 3, Nos 1& 2.
Fabric 6.2 Similar to 6.1 but with less tempering.
Fabric 6.3 Soft, coarse fabric. Occasional sub-angular quartz <1mm; occasional flint <2mm; very occasional iron oxide. Soapy feel; external surfaces unoxidized, core light brown; fracture hackly; external surface burnished; vesicles.

Medieval
Four fabrics were identified in this group.

Fabric 1. Coarse, hard fabric. Common fairly rounded quartzite grits occasionally up to 2mm and very occasionally larger; sub-angular quartz <3mm; very occasional angular calcined flint <2mm; occasional bright red iron oxide. Granular surface, sometimes wiped, some scratch-marked; fracture mostly hackly, occasional laminated areas; buff/grey core, external and internal surfaces buff, red-brown or black.
Fabric 2. Hard fabric. Fine sandy matrix with quartzite sands generally less than 0.5mm; occasional iron oxide; very occasional sub-angular quartz <2mm; rarely rounded or sub-angular quartz up to 8mm; very occasional seed and vegetable matter impressions. Sandy feel; hackly fracture; surface sometimes wiped, sometimes scratchmarked; internal and external surfaces buff, grey or orangey-brown; core buff to dark grey.
Fabric 3. Hard fabric. Common, well-sorted fine sand; occasional sub-angular quartz grits <3mm; occasional iron oxide flecks; very occasional voids. Sandy to almost smooth feel; fracture hackly, occasional lamination; internal and external surfaces, unoxidized or beige; core grey, unoxidized or beige. Occasional sherds with splashes of orange-yellow glaze internally or externally.
Fabric 4. Hard fine fabric. Very similar to fabric 3 but with moderate bright red grog inclusions occasionally up to 3mm. Some Dorset red-painted ware.

Late medieval and post-medieval
This category consisted of four fabric types, the predominant one being Verwood ware. There were, in addition, one sherd of stoneware and four of Tudor Green.

Fabric 5. Hard fabric. Very fine sandy matrix; very occasional sub-angular quartzite <2mm; very occasional iron oxide flecks; very occasional grog. Surface smooth/sandy; external unoxidized, with grey core/external oxidized with grey core/buff with internal green glaze.

Form
The rim sherds of the medieval pottery were sorted by form into broad categories (see Table 2), and all the rims are illustrated in the archive. Relatively little in the way of base sherds or base angles were recorded in the medieval material, and whilst there was evidence of up to 24 jugs, represented by either handles or rim sherds, no bases were present. Three or possibly four of the rim sherds may have been from curfews or fire-covers; a form not previously recognised in Dorset.

Discussion
The fifteen sherds of early medieval pottery can be dated by comparison with material from Shaftesbury (Keen 1977), Wimborne (Poulsen 1984a, 81), and Greyhound Yard, Dorchester (Davies, Draper, and Woodward 1993, 290), to the 10/11th century. The majority of the medieval pottery, especially fabrics 1 and 2, appears to be of 12/13th-century date. Scratch-marked material was present in Fabrics 1 and 2. The rims were of a very simple form (Figs 3 & 4), suggesting that they belong with the earlier forms of this pottery type. One sherd of red-painted ware was recorded and a jug handle of 15th century-date. The fire-covers may have come from Laverstock where one was recorded in a kiln excavation (Musty, Algar and Ewence 1969, 135,138).

The lack of pottery with tempering other than quartzite sands may imply that the pottery was coming from a local source, perhaps a

Waitrose, Gillingham	(Hawkes, 1992a)	11.78g/sherd
Wimborne Model Town	(Hawkes, 1992b)	9.65g/sherd
High St., Wimborne	(Mepham, 1992a)	16.06g/sherd
Chantry Fields, Gillingham	(Mepham, 1992b)	9.13g/sherd

Table 3, showing average size of medieval pottery sherds in named excavations.

		Rim Form	Fabric type											
			1		2		3		4		5			
JARS	EVERTED	plain	7	20%	15	9%	6	5%	-	-	1	11%	29	8%
		pie crust	-	-	5	3%	2	2%	-	-	-	-	7	2%
		flat topped	-	-	8	5%	13	11%	2	7%	1	11%	24	7%
		flat top, rolled rim	3	9%	5	3%	4	3%	2	7%	-		14	4%
		grooved lip	2	6%	23	13%	20	17%	6	22%	3	33%	54	15%
		rolled rim	9	26%	39	23%	23	20%	5	19%	-	-	76	21%
		grooved lip, rolled rim	-	-	2	1%	-	-	-	-	-	-	2	½%
	UPRIGHT	flat top	1	3%	1	5%	2	2%	-	-	-	-	4	1%
		grooved lip	-	-	1	5%	-	-	-	-	-	-	1	½%
		flat top, rolled lip	-	-	1	5%	2	2%	-	-	1	11%	4	1%
		rolled rim	-	-	1	5%	1	1%	-	-	-	-	2	½%
BOWLS		hammer-head	12	34%	56	33%	34	30%	10	37%	2	22%	114	32%
		rolled rim	-	-	6	4%	1	1%	-	-	1	11%	8	2%
		bowl / jar	1	3%	5	3%	2	2 %	-	-	-	-	8	2%
		bowl/pan/fire-cover	-	-	2	1%	3	3%	1	4%	-	-	6	2%
JUGS		jug	-	-	1	5%	2	2%	1	4%			4	1%
		Total	35		171		115		27		9		357	
		%age of total	10%		48%		32%		8%		2%			

Table 2, Rim form.

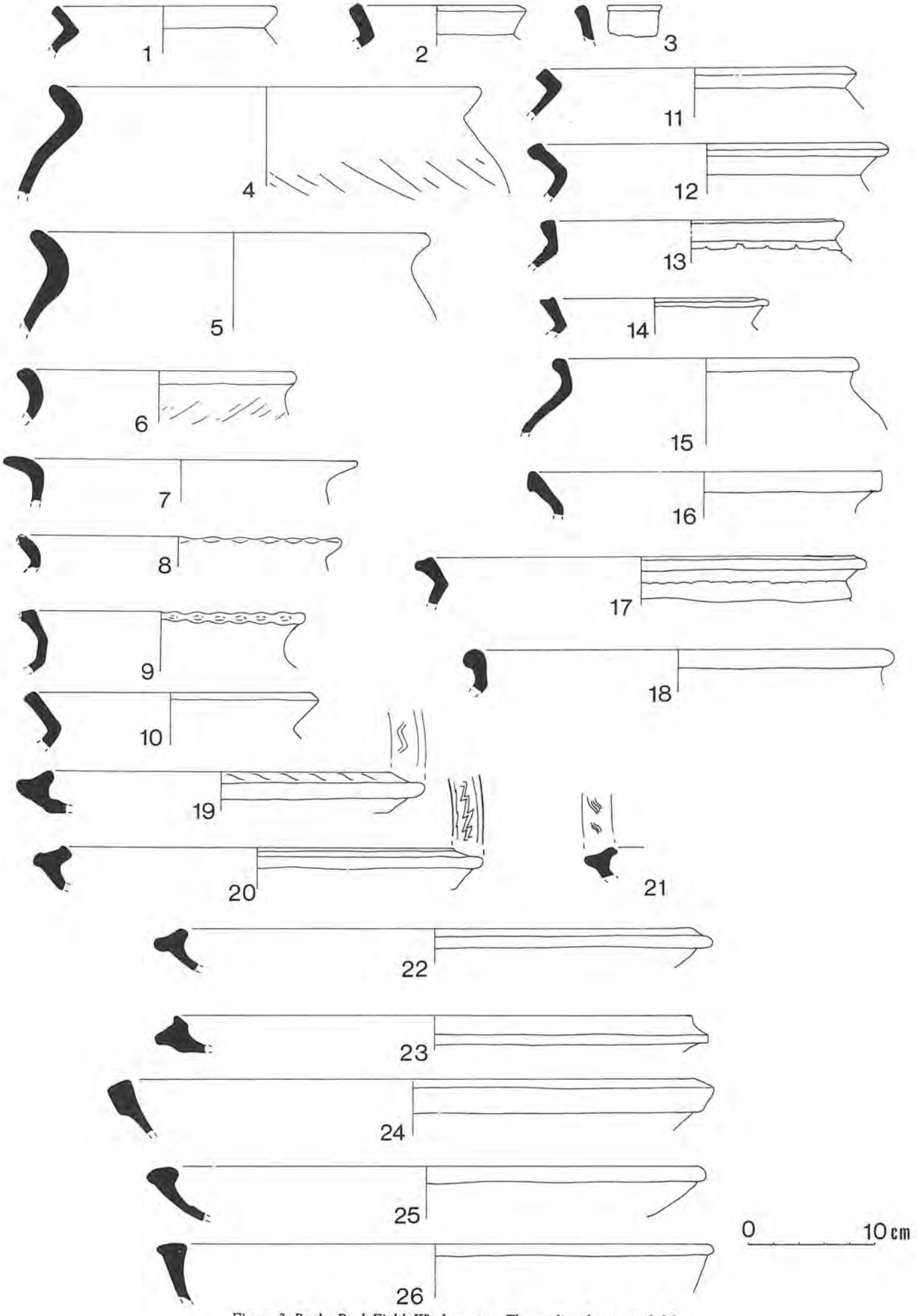

Figure 3. Bushy Park Field, Witchampton. The medieval pottery, 1-26.

precursor to the local pottery production of the Verwood area.

As a sample of material from a field-walked site, it must be exceptional, in Dorset, for the large quantity of material and size of the pottery sherds. In Fabrics 1-4, the medieval group, the average sherd size was 16.28g. This is compared in Table 3 with data from recent excavations in Wimborne and Gillingham (Hawkes 1992a, 131; Hawkes 1992b, 148; Mepham 1992b, 116; Mepham 1992a, 140). The only figure to come close to that of Witchampton was that of the High St excavation Wimborne.

List of illustrated sherds (Figs 3 & 4)

1. Everted rim from cookpot; external surfaces reddened with dark grey patches, internal grey to beige, core grey; Fabric 6.1. Context V1. Similar to sherds from Shaftesbury (Keen 1977, 129, no. 7), Wimborne (Poulsen 1984a, 82, no. 1), and Greyhound Yard (Davies, Draper and Woodward 1992, 290, nos, 1 and 2, not illustrated) all suggested as 10th/early 11th-century in date.
2. Everted rim from cookpot; internal and external surfaces reddened, core grey; Fabric 6.1. Context K6. Similar in form to Shaftesbury no.5, Fig. 34 (Keen 1977, 129).
3. Everted rim from cookpot; internal and external surfaces brown/black, core dark grey; Fabric 6.2. Context J4.
4. Everted rim cookpot; scratchmarked externally; internal surface grey with beige patches, external reddened, core beige; Fabric 2. Context K7. Similar in form to Christchurch no. 10 but larger (Davies 1983, 37).
5. Everted rim cookpot; scratchmarked internally; internal and external surfaces reddened, external rim blackened, core red; Fabric 2. Context P8.
6. Everted rim cookpot; scratchmarked internally and externally; dark orange red throughout; Fabric 2. Context V1.
7. Everted rim cookpot; scratchmarked internally; external surface beige, internal and core reddened; Fabric 2. Context P2.
8. Everted rim cookpot; piecrust rim; grey/black throughout; Fabric 2. Context J4.
9. Everted rim cookpot; piecrust rim; internal and external surfaces dark beige, core grey/black; Fabric 3. Context P8. Similar in form to Christchurch no. 15, (Davies 1983, 37), dated to 12th/13th century.
10. Everted rim cookpot; internal and external surfaces beige, core grey; Fabric 3. Context V7.
11. Everted rim cookpot; internal surface blackened, external beige, core dark grey; Fabric 3. Context BB1.
12. Everted rim cookpot; dark greyish brown throughout; Fabric 1. Context K7.
13. Everted rim cookpot; finger impressed collar on exterior; internal and external surfaces beige, internal blackened, core dark grey; Fabric 3. Context BB2.
14. Everted rim cookpot; internal and external surfaces reddened, core dark grey; Fabric 2. Context F2. Similar form and fabric to Wareham no. 101 (Hinton and Hodges 1977, 70).
15. Everted rim cookpot; internal and external surfaces beige/grey, core dark grey; Fabric 3. Context K7.
16. Everted rim cookpot; internal surface reddened, external beige, core grey; Fabric 2. Context K6. Similar in form to Christchurch no. 19 (Davies 1983, 37), dated to 12th-13th century.
17. Everted rim cookpot with finger impressed collar on exterior; internal and external surfaces orange-red, core light grey; Fabric 4. Context BB5. Similar in form to the Leaze no. 14 (Field 1973, 58), suggested early 13th-century date.
18. Upright rim cookpot; external and internal surfaces beige, core grey; Fabric 3. Context U5.
19. Rim sherd of hammerhead bowl; decorated with incised zig-zag on rim; external surface black, internal beige with yellow-green glaze splatters, core dark grey; Fabric 3. Context K7. Similar in form to no. 6, Gillingham (Hawkes 1992a, 133) and to Wimborne no.14 (Poulsen 1984a, 82).
20. Rim sherd of hammerhead bowl, decorated; internal and external surfaces dark grey, core dark grey, splashes of yellow glaze on rim and internal surface; Fabric 3. Context B1. Similar to sherd 20.

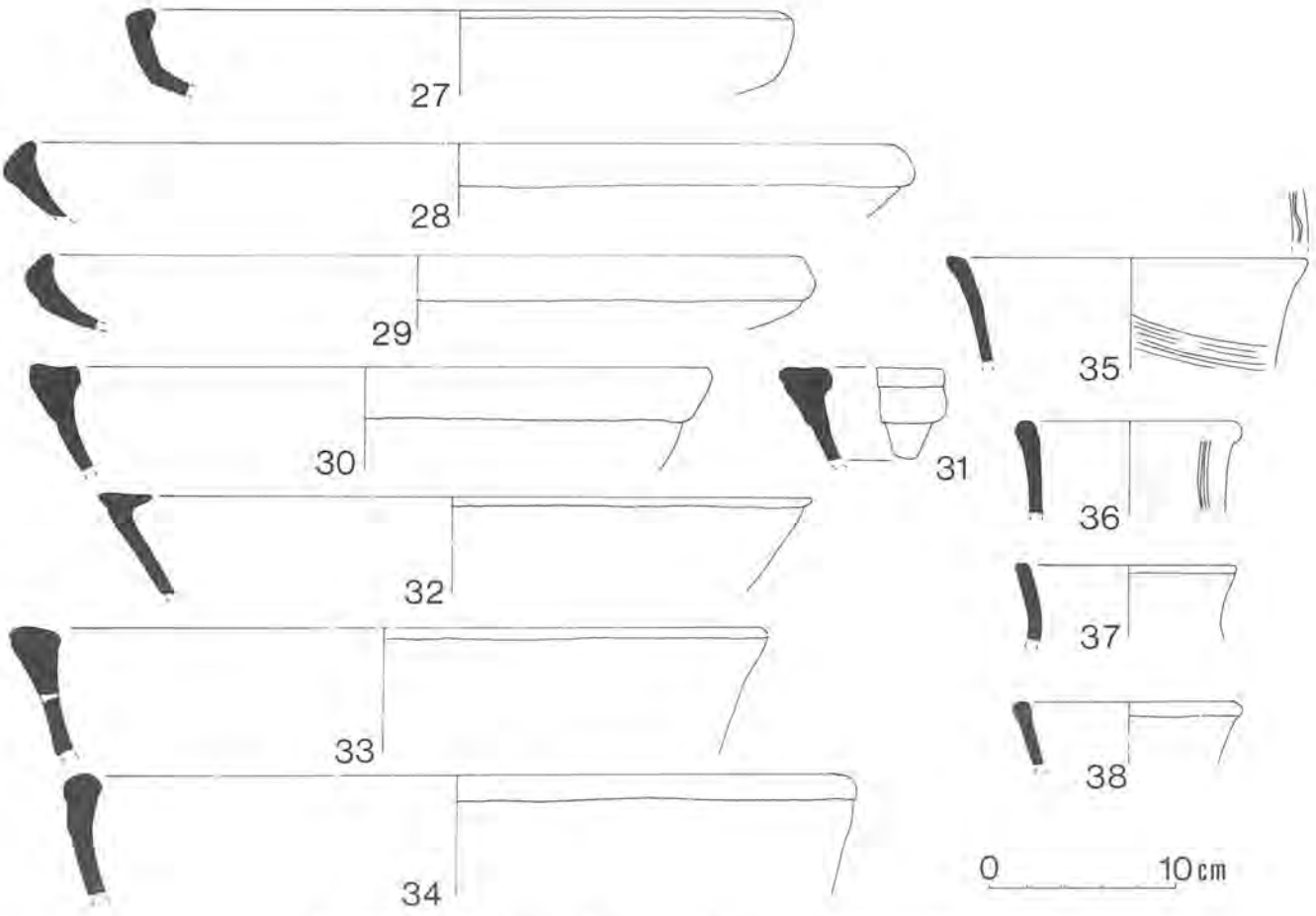

Figure 4. Bushy Park Field, Witchampton. The medieval pottery, 26-38.

21. Rim sherd of hammerhead bowl, decorated; surfaces and core grey. Fabric 2. Context 02.
22. Rim sherd of hammerhead bowl; internal surface grey/brown, external dark grey, core grey; Fabric 2. Context P8. Form similar to No. 5, Corfe Castle, West Bailey (RCHM 1960, 44, Fig.12) from a 12th-century context.
23. Rim sherd of hammerhead bowl; internal and external surfaces grey/beige, core grey; Fabric 2. Context BB6. Similar to no.25, the Leaze, Wimborne (Field 1973, 58, Fig.12), but squarer. Dated to 12th/13th centuries.
24. Rim sherd of hammerhead bowl; external surface and core beige, internal reddened, Fabric 3. Context V7. Possibly the rim of a fire-cover rather than a bowl.
25. Rim sherd of hammerhead bowl; internal surface beige, external grey/beige, core dark grey; Fabric 3. Context P8. Similar to no.12, West Bailey, Corfe Castle (RCHM 1960, 43, Fig. 11, No.12), from a 12th-century context and to no.56, Wareham (Hinton and Hodges 1977, 67, Fig. 16).
26. Rim sherd of hammerhead bowl; internal surface grey/beige, external reddened, core grey; Fabric 3. Context P8.
27. Rim sherd of bowl; internal surface grey, external beige, core grey; Fabric 3. Context P7.
28. Rim sherd of bowl; external surface grey, internal pink/beige, core grey; Fabric 4. Context P3.
29. Rim of sherd of bowl; internal surface beige/grey, external black, core grey; Fabric 3. Context U2.
30. Rim sherd of bowl/pan/fire-cover; applied strip externally just below rim; internal surface beige/grey, external grey, core dark grey; Fabric 2. Context C1. The form of this and the next three sherds suggest that they may be part of fire-covers or curfews. Nos. 32 and 33, in particular, resemble both in form and fabric, no.55 from the Chantry, Farleigh Hungerford Castle, (Miles and Saunders 1975, 186, Fig. 73). From Dorset there is one similar rim from Wimborne St Giles (Poulsen 1984b, 153, Fig 14, no. 12) where it is described as a large bowl in a coarser fabric than the rest of the assemblage, which fits with these examples and the description of the fabric of the example from Farleigh Hungerford.
31. Rim sherd of bowl/pan/fire-cover; internal and external surface dark grey, core grey; Fabric 3. Context F6.
32. Rim sherd of bowl/pan/fire-cover; internal and external surfaces and core dark grey; Fabric 3. Context V1.
33. Rim sherd of bowl/jar/fire-cover; external surface brown, reddened at rim, internal dark grey, core grey; Fabric 2. Context V3.
34. Fairly abraded rim sherd of bowl/jar; external surface reddened, external blackened, core grey; Fabric 2. Context V3.
35. Rim sherd of decorated jug; internal surface brown, external beige over black, core dark grey; external surface combed in places; Fabric 3. Context P1.
36. Rim sherd of decorated jug; external and internal surfaces and core grey; combing in places externally with partial green glazing; Fabric 2. Context V2.
37. Rim sherd of jug; external surfaces orange/red, internal beige, blackened, core beige; Fabric 3. Context V1.
38. Rim sherd of jug; internal and external surfaces beige, core grey; Fabric 4. Context 02.

The Flint

A small amount of worked flint was present in the field and its composition and distribution is shown in Table 4 and Fig.5. The percentage of tools and retouched material, 7.35% is not particularly high (at Throop 14.4% was considered to be high (Richards 1992)). There were some concentrations of burnt flint (see Fig.2) which can sometimes indicate domestic activity. In four out of seven cases these were in areas where flint was found, two of them being in areas of high concentration. In the east of the field the flint distribution was highly localized and appeared to have suffered little past disturbance.

Acknowledgements

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Burnt Flint	Cores	Blades	Retouched Blades	Flakes	Retouched Flakes	Scrapers	Borer
9	6	81	6	156	5	8	1

Table 4. The composition of flint from the surface collection.

Abbreviations

DCM	Dorset County Museum
DRO	Dorset County Records Office
RCHM	Royal Commission on Historic Monuments

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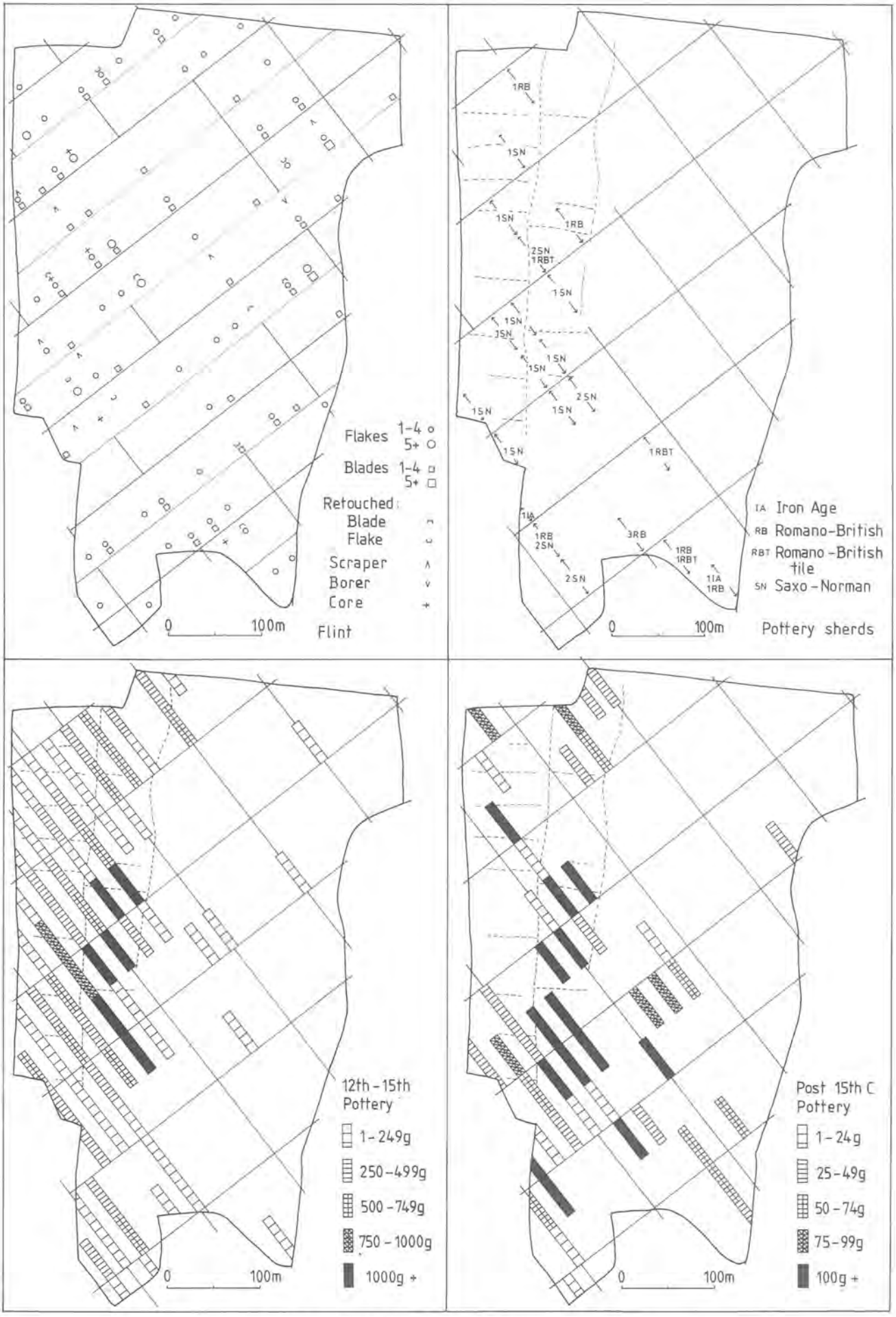

Figure 5. Bushy Park Field, Witchampton. Distributions of flint and pottery.

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Building Stones of Dorset.
Part 2. Chideock to Broadwindsor - Middle and Upper Lias.

JO THOMAS

In the first part of this series the building stones of the western parishes were examined. The geological units comprised the Chert Beds of the Upper Greensand, which unconformably overlie the Lias of western Dorset, and the Blue Lias which crops out on the coast between Lyme Regis and Charmouth. (Thomas 1993).

In this second part it is proposed to cover the neighbouring parishes from Chideock to Broadwindsor, where the Middle Lias crops out in the valleys, and the Upper Lias forms the hills. There are also several prominent hills of Upper Greensand and Chalk either extending from the Chalk downland, or as small outliers of Cretaceous beds. Evidence for the existence of quarries has been taken from tithe maps, Ordnance Survey maps, other historical maps in the Dorset County Records Office, and geological literature, as noted at the end of this paper.

The most important building stone quarried in these parishes is the Inferior Oolite of the Middle Jurassic. In this area the Inferior Oolite contains few, if any, ooliths. It is an iron-stained micritic limestone with scattered bivalves, belemnites and ammonites. The 'Top Limestones' used for building have few fossils and belong to the *parkinsoni* Zone. Richardson's papers (1927-29) were researched at a time when many quarries were still visible, if not working. Most of these quarries are now overgrown or filled in.

The limestone part of the Junction Bed is a sparite, mottled white and pink, with many ammonites from several zones as the Bed is a condensed deposit. It lies at the boundary of the Middle and Upper Lias. Although its hardness provides firm foundations *in situ* for building, the presence of the fossils makes it a poor quality building stone in this area, and it has been quarried mainly for limeburning.

In the Bridport area the more durable Forest Marble from Bothenhampton has also been used in building. This limestone will be considered in a later article.

Parishes of West Dorset using Inferior Oolite as a building stone.

ALLINGTON PARISH. Figure 1.

The rural area of Allington is underlain by Middle Lias silts, with a faulted block of Upper Lias clay and sand to the south. Allington Hill is capped by a small outcrop of Inferior Oolite which has almost all been quarried away. The quarry is said to have been worked out in the 18th century. To the north and east of the hill, the Down Cliff Clay has been dug for brickmaking.

Buildings.

The earliest recorded building in Allington was the 13th century hospital of St. Mary Magdalene, built of Inferior Oolite from Allington Hill. A wall of a medieval church can still be seen. Inferior Oolite from Allington Hill may have been used for St. Mary's church in Bridport in the 14th and 15th centuries, and there are several 17th century cottages in Allington itself. Late 18th and 19th century buildings use Forest Marble from Bothenhampton. There are many 19th century buildings in Allington which use Inferior Oolite, but the source of this stone was probably in neighbouring parishes.

Quarries.

12. Allington Hill. Inferior Oolite. OS 1888.
13. NE slope of Allington Hill. Down Cliff Clay. Wilson *et al.* 1958, p 60.

BRADPOLE PARISH. Figure 1.

The parish of Bradpole has an outcrop of the Junction Bed on the hill above the village but it does not appear to have been used for building. The old village, built mostly of Inferior Oolite, is east of the main Bridport/Beaminster road, on a faulted area of the Middle and Upper Lias. A small quarry on Watton Hill provided less than 2m depth of the limestone, and it is probable that stone was brought in from other parishes. Bricks were made from Down Cliff Clay at Hammitts Pit.

Buildings.

The 12th - 13th century church, rebuilt in the 15th century, was demolished and rebuilt in 1845-6 with Inferior Oolite from quarries in Mangerton and Loders (Hutchins 1863, II, p 156). 17th century cottages, farm buildings and the bridge are of Inferior Oolite, but 18th century buildings use Forest Marble from Bothenhampton.

The rope and net industry has provided employment since the 17th century and expansion during the 19th century gave rise to the building of new cottages for workers and a factory complex at Pymore, next to the river Brit. The Dorset County Records Office holds the building specifications for much of the Pymore factory complex, (DRO/D203/A67b) of which the following is a summary.

1843. Warehouse and arch over stream at Pymore factory, stone foundations bedded in Beaminster lime and sea-sand mortar. Arch of Bothenhampton stone. Warehouse walls of Bothenhampton stone on outside and Loders stone (Inferior Oolite) on inside. Welsh slates on roof. Portland or Bothenhampton window sills.

1851. Workshops and offices. Stone walls to 20 inches, brick walls above. Steps, paving of cellar and pillars in Bothenhampton stone. 2 Portland chimney pieces.

1857. A building of Bothenhampton stone and bricks.

1858. 6 cottages built in Loders, by Cooper & Crabbe for £326. March - May 1858: 146 loads of Mangerton stone at 2s 6d a load. March - June 1858: 154 hogsheads of lime at ls 4d. Specification for mortar of Mangerton or Beaminster lime: stone from Mangerton or Bothenhampton for vault and manhole: Mangerton stone for walls: Keinton stone (Blue Lias) for external doorways and steps: Bothenhampton stone for paving privies and court: Bangor slates for roof. The records include an agreement to pay Way of Bradpole for the Mangerton stone, and Cornick & Sons of Bridport for bricks.

1861. Wall against river built of Bothenhampton stone.

Quarries.

17. Watton Hill. Inferior Oolite. OS 1888.
18. Limekiln. Junction Bed. Tithe 1845, field 499.
19. Hammitts Pit. Down Cliff Clay. Tithe 1845, field 470; brickyard in field 603.

BRIDPORT PARISH. Figure 1.

The parish of Bridport lies between two rivers, the Brit and the Asker, following the Brit down to the coast at West Bay. The modern boundaries include the built up area of Allington previously described. The town is underlain by the Middle and Upper Lias sands and clays, the outcrops being cut by two E-W faults and two trending NNE-SSW. The Down Cliff and Fuller's Earth Clays have been used for brickmaking in the 19th century, and south of Allington Hill a field name on the Tithe map suggests that bricks were made from Middle Lias clays. The stone used for pre-20th century buildings is almost entirely the Forest Marble from Bothenhampton.

Buildings.

Rocks from the shore were used to build the walls of Bridport Haven, which is recorded in the reign of Edward I. The harbour at West Bay was built in 1740-4, and rebuilt in 1824 using Forest Marble.

St. Mary's church was originally built in the 13th century with 15th century nave, aisles and tower. The 13th century work includes a small amount of Forest Marble in rubble which suggests an earlier origin. Most of the building at that time and in the 15th century is of good quality Inferior Oolite, probably from Allington, though Chideock stone was also available. Additions were made at both the east and west ends of the church in 1860, when some Ham Hill stone was used in addition to Inferior Oolite.

The 14th century Chantry and 16th century Museum are built of

Forest Marble, with Ham Hill stone dressings. The latter was unfortunately covered in paint during a recent 'renovation' of the Chantry.

The rope and net industry was founded in the 17th century and many of the buildings in Bridport, both industrial and domestic, were built during times of prosperity for this industry. The work was originally done in the homes of workers, but with the advent of water power it was transferred to factories in the early 19th century. The buildings, all of Forest Marble, reflect this transition. Factory and commercial buildings also used brick from Allington, and from a brickworks south of the town in the river valley.

A building specification for a house in East Street dated 1834 (DRO/D30/3) shows the varied use of local and 'imported' stone at that time. A summary is given below:

> Cellar floor & walls - Bothenhampton stone.
> Walls above floor level of stone from Stoney Head quarry (Loders - Inferior Oolite).
> Shop front storey to be faced with Portland stone and the 2 upper stories and parapet faced with Exbury brick.
> Hall floor of Portland stone.
> Steps to cellar of Purbeck stone.
> 14 x 12 feet of cellar floor to be paved with Purbeck stone.
> Portland stone coping on roof and 3 string courses of Portland stone, plus window cills, chimney pieces.
> Drawing room chimney piece of Devon marble.
> Pantry under hall floored with Bampton (Bothenhampton) stone, with Portland stone washbasin.
> Joseph & Frederick Galpin, builders.

Quarries.

14. North Allington Brickworks. Down Cliff Clay. OS 1890. Kelly's Directory *1880, 1885, 1889, not included in 1903.*
15. Brickkiln Barn. Middle Lias. Tithe (Allington) 1840, field 232.
16. Brickkiln and yard. Fullers Earth Clay. Tithe (Bothenhampton) 1845, field 241.

The mention of small brickyards on the tithe maps suggests that early 19th century buildings would have used these bricks, and late 19th century buildings used North Allington bricks.

The Oxford Clay brickworks east of Bothenhampton commenced work in the late 19th or early 20th centuries.

BROADWINDSOR PARISH. Figure 2.

Broadwindsor is one of the larger parishes in Dorset and is where the irregular small hills capped by Inferior Oolite contrast with the larger flat-topped hills of Upper Greensand. It is at the western end of the Beaminster fault belt, in which the succession through Middle Lias, Bridport Sands, Inferior Oolite and Fuller's Earth is cut by the faults into several small blocks. Blackdown, Blagdon, Horn & Lewesdon Hills are of Gault and Upper Greensand. Blackdown Hill was included in Part 1 of this series, as the Upper Greensand chert is used for building in the village. Throughout the parish each outcrop of Inferior Oolite has been quarried, and all the buildings use it. There are over 20 quarries, and those which are said to have provided the best stone were Whetley Cross and Horn Park.

Middle Lias clay was used for brickmaking at Childhay and Racedown in the 18th century. The Bridport Sands have been dug for

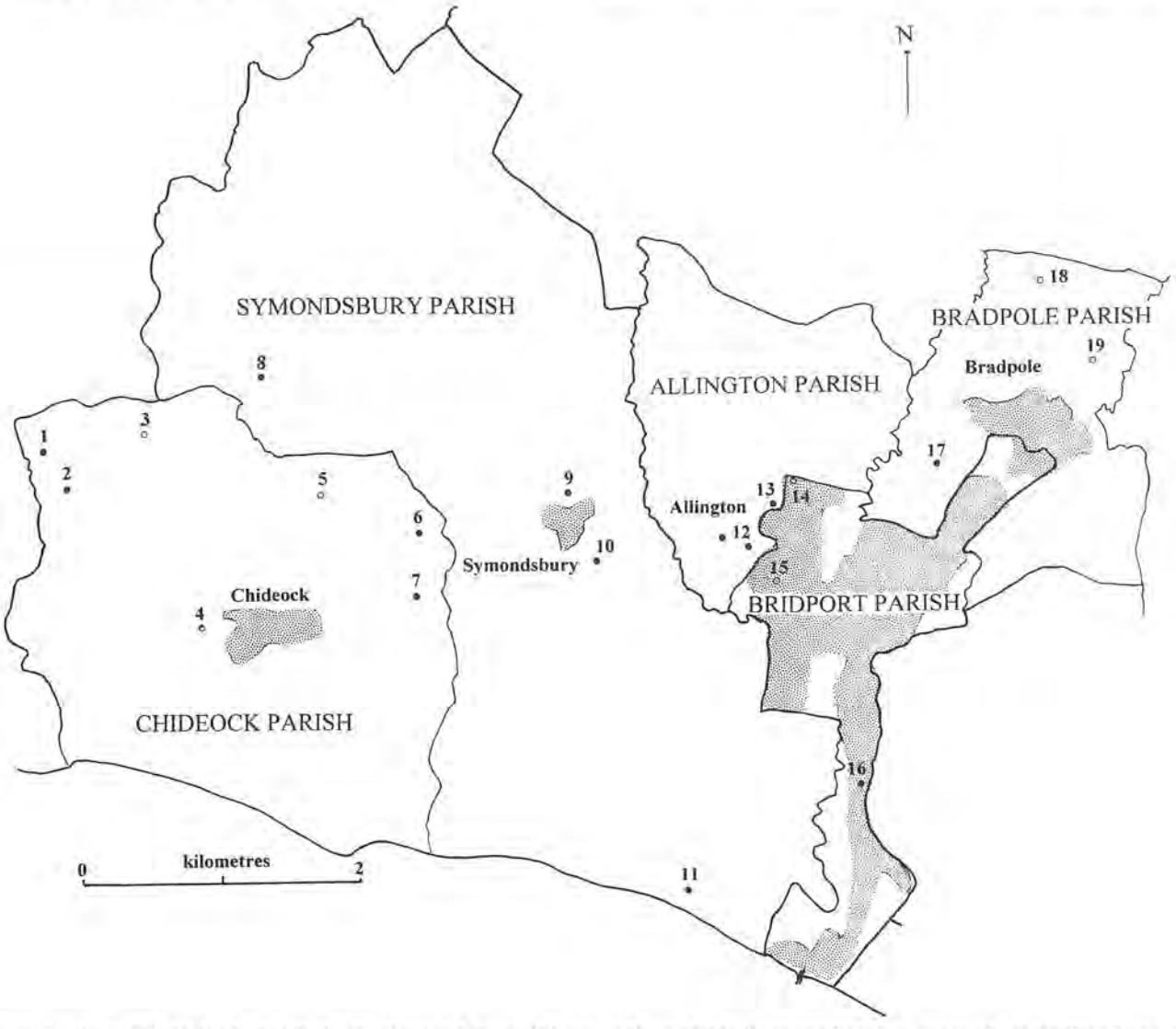

Figure 1. Allington, Chideock, Bradpole, Bridport and Symondsbury. Inferior Oolite limestone has been quarried for building stone in all except Bridport parish. Quarries are numbered. The location of those marked by an open circle is approximate as they refer to field names on tithe maps.

building and farm purposes in pits around Drimpton. Deeds referring to Sandpit Farm date from the 13th century (DRO/D626/5).

Fuller's Earth Clay has been used for brickmaking, being referred to in a deed concerning Horn Park in 1876 (DRO/D438A/T2-4,22). Brick and tile makers at Blackdown, Broadwindsor and Drimpton are referred to in the Post Office Directory *of 1855, and* Kelly's Directory *of 1880 and 1885*.

The Upper Greensand chert, chert drift and sand have been dug for roadmaking if not for building on most of the hills.

Buildings.

The dates of the buildings in all the settlements of the parish show that the Inferior Oolite was quarried on a small scale in the 13th, 14th and 15th centuries, but use increased in the 17th and again in the 19th century.

The parish church of St. John was built at various times in the 12th to 15th century of Inferior Oolite which probably came from Grange quarries in Burstock, as these were the closest. In 1867 most of the building was demolished. The church was rebuilt using Inferior Oolite from Whetley Cross quarry, which is reputed to be of very high quality.

The beautiful manor of Childhay was commenced in the 13th century by monks from Forde Abbey and has 15th, 16th and 17th century buildings in Inferior Oolite, almost certainly from Grange quarry. In common with many important buildings in West Dorset, Ham Hill stone was used for the facade of the manor. The stables were built in the 18th century of bricks made on site from Middle Lias clay.

Quarries.

The Upper Greensand chert quarries in the western part of the parish have been recorded in part 1 of this series.

1. Childhay. Middle Lias. Brickworks during 18th century, noted on OS 1890.
2. Whetham Farm. Middle Lias. Tithe 1840, field 1038. Pit in 18 acres in use at that date.
3. Drimpton. Inferior Oolite. Tithe map 1840, fields 150, 154, 155. The quarries were in use at this time. OS 1890. Drimpton quarries were used for Netherhay (1638) and Drimpton Farms in the 17th century, and Lower Drimpton Farm, rebuilt in the 18th century. Drimpton stone may have been used for Sandpit Old Farm, where the surviving building dates from about 1500.
4. Lower Sandpit Farm. Bridport Sands. Tithe 1840, field 585.
5. Drimpton. 'Marlpit' mapped as Head. DRO/D1/10,492. 1775, map and survey of Little Windsor.
6. Norton Hill. Bridport Sands. OS 1890.
7. Drimpton. Fuller's Earth over Inferior Oolite. 'Marlpit' on DRO/D1/10,492. (see 5)
8. Seaborough, West Swilletts Farm. Inferior Oolite. OS 1890.
9. 'Marlpit'. Head/Fuller's Earth/Inferior Oolite. DRO/D1/10,492. (see 5)
10. Nine acre pit. Inferior Oolite. OS 1984.
11. Braggs Pit. Inferior Oolite. DRO/D1/10,492, Quarry Close, field 77. (see 5)
12. Blagdon Farm. Gault/Fuller's Earth/Inferior Oolite. Tithe 1840, Marl Pit Moor, field 531.
13. Blagdon Hill. Upper Greensand. OS 1890.
14. Old quarry & limekiln. Inferior Oolite. OS 1890.
15. Colepay Cottage. Inferior Oolite. OS 1890.
16. Inferior Oolite. OS 1890 & 1930.
17. Quarry Down. Inferior Oolite. Tithe 1840, field 1030.
18. Marlpit. Fuller's Earth/Inferior Oolite. 1775 DRO/D1/10,492.

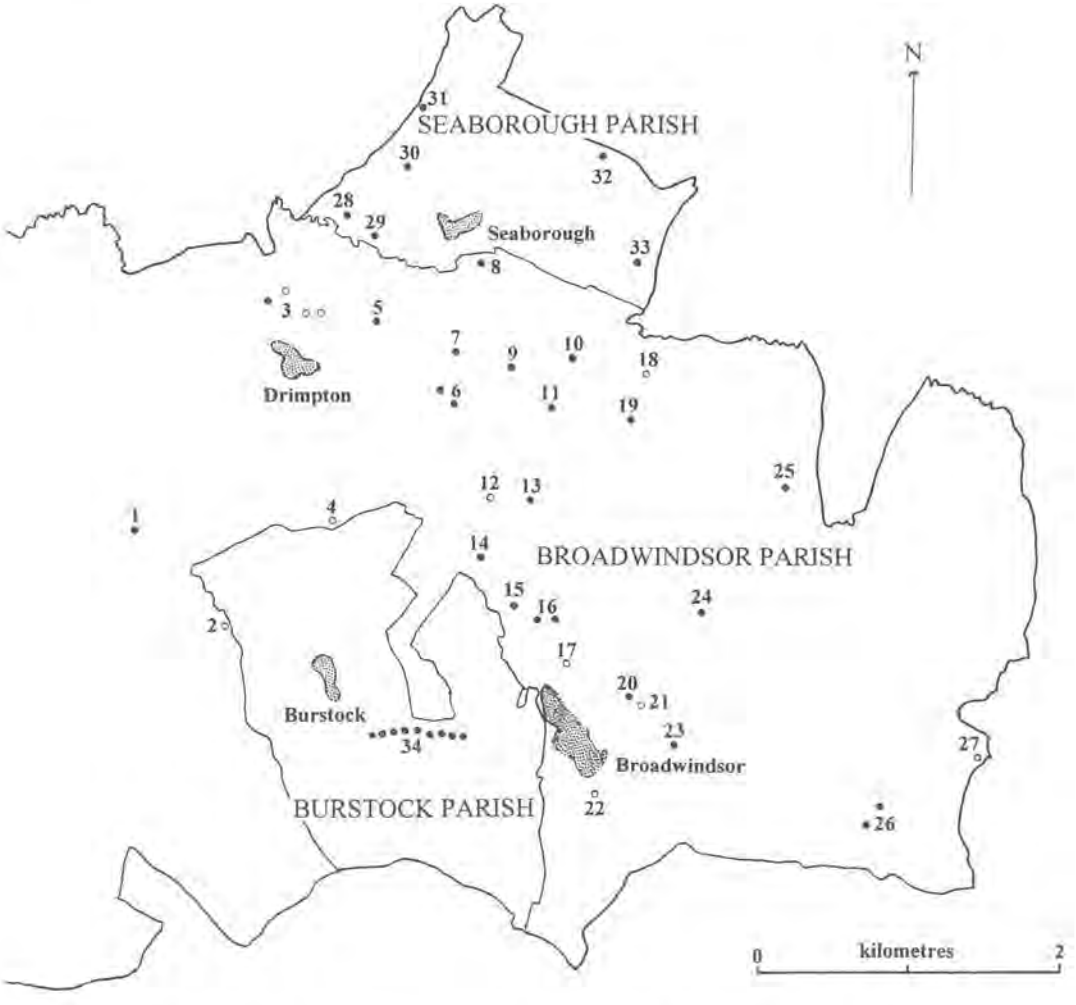

Figure 2. Broadwindsor, Burstock and Seaborough parishes. Grange, Horn Park and Whetley Cross quarries are the most important in this area.

19. Littlewindsor. Inferior Oolite. OS 1968.
20. Hollis Hill quarry. Inferior Oolite. OS 1890.
21. Common Water Lane. Inferior Oolite. Tithe 1840, field 1131 Limekiln Plot.
22. Folly Farm marl pit. Inferior Oolite. Tithe 1840, field 1464.
23. Honeycombe Farm. Inferior Oolite. OS 1890. Richardson 1927, p 44, site 62.
24. Fullers Earth/Inferior Oolite. OS 1930.
25. Whetley Cross. DRO/D1/10,492. Quarry Close, field 179. (see 5) An important source of stone for building until the 1930's, being used for Broadwindsor and Mosterton. Whetley Cross Farm, which was built in the late 17th century has an earlier core.
26. Horn Park quarry. Inferior Oolite. Tithe 1840, field 1367, Quarry Close. OS 1890. Richardson 1928, p 182-3, site 59. DRO/D438A/T2-4, 22. Deeds from 1626 refer to the estate, but the earliest document mentioning quarrying is an indenture of 1876. This refers to a brick kiln and Quarry Close. The earliest part of the quarry is next to the road. The overburden of Fuller's Earth clay becomes too deep for hand quarrying northwards, but an east-west fault repeats the exposure of Inferior Oolite in the field to the north. The second quarry was in use in the 19th century, and was active until recently. This second quarry is an SSSI.
27. Clay Coppice. Fuller's Earth. Tithe 1840, field 1155, Brickkiln.

BURSTOCK PARISH. Figure 2.

This small parish, almost entirely surrounded by Broadwindsor, is underlain by Bridport Sands, except for the Inferior Oolite capping Grange Hill. Here there was a large expanse of quarrying, of which the first written record in the Dorset County Records Office is a deed referring to Grange Quarr Close, dated 1691. The churches at Burstock village and Broadwindsor used stone from here in the 12th to 15th centuries. The quarry continued in use until the 1920's, mainly for roadstone. Fullers Earth clay was used at Hursey, on the edge of Broadwindsor village, for brickmaking.

Buildings.

Buildings using local stone within the parish date from the 12th to the 18th century, but the stone from Grange was also used for Broadwindsor, and most probably for Childhay manor.

Quarries.

34. Grange Quarry. Inferior Oolite. DRO/D1/8474, 5th March 1691, Grange Quarr Close mentioned in lease. DRO/D15A/T5, T6, 1859 refers to quarrying. 1st edn. 1" OS map, surveyed 1795, quarry shown, with track leading from Burstock Grange. The only other quarry appearing on this map is Chideock Quarry Hill. Tithe 1839, fields 128, 144, 145, 146 & 147. Richardson 1929, p 256, sites 63 & 64.

CHIDEOCK PARISH. Figure 1.

The village of Chideock is dominated on the west by Hardown and Langdon Hills, both capped by Upper Greensand chert beds, and on the east by Chideock Quarry Hill, an outcrop of Inferior Oolite. Most of the parish is on the silts and clays of the Middle Lias which form low-lying ground. The slopes of the two hills are through the Middle to Upper Lias, including the Junction Bed. There are pits in several parts of these Formations, but the building stone came from the Inferior Oolite on Quarry Hill.

Buildings.

The buildings in Chideock are all of Inferior Oolite, and commence with the 13th century church. A castle built in 1387 was in ruins by 1733, and no part of the building remains today. Cottages from the 16th to the 19th centuries are of Inferior Oolite, though agricultural buildings also include chert and Lias stones from the beach. Chideock Manor has 15th, 16th and 17th century remnants, but was rebuilt in 1810. The chapel and mausoleum was built in 1870, at which time the quarry was still working, though stone from other quarries in neighbouring parishes was also available.

Quarries.

1. Hardown Hill. Upper Greensand chert beds.
2. Melcombe Pitt. Bridport Sands. Tempest House Terrier (1769).
3. Middle Lias. OS 1931.
4. Pit Mead. Middle Lias. Tithe 1841, field 297.
5. Marl Pits. Middle Lias. Tithe 1841, fields 427 & 428.
6. North Quarry Hill. Inferior Oolite. Tithe 1841, fields 411 & 412. Champs quarry. DRO/D16/P2 1852 map shows limekiln and quarry. Richardson 1927, p 52, site 4.
7. South Quarry Hill. Inferior Oolite. Tithe 1841, fields 515, 516 & 517. DRO/D16/P2 1852 map. OS 1st ed. 1" map surveyed 1794-5. Richardson 1927, p 52-5, sites 2 & 3. Quarry in work 1914.

NETHERBURY PARISH. Figure 3.

The parish has a complex of hills and valleys, with the rivers Brit and Simene and their tributaries running through from north to south. The low ground in Netherbury parish is underlain by Middle Lias silts and clays, which have been used for brickmaking at Wooth and near Melplash. The hills at Netherbury village and North Bowood are capped by the Junction Bed limestone, and there are several scattered outcrops across the parish which have been quarried, mainly for limeburning. Inferior Oolite caps the hills at Mangerton and Warren Hill, and has been extensively quarried.

Buildings.

There is documentary evidence that the Junction Bed was used in the 19th century for building in Netherbury village, (DRO/D188A/E15) and this stone can be seen in buildings close to the quarry at North Bowood. The majority of the buildings use Inferior Oolite. The church has a 14th century nave and aisles and a late 15th century chancel and tower, but the domestic buildings date from the 16th and later centuries.

A Court of Survey dated 1566, quoted by Hutchins (1863, II, p 106), states that 'It is lawful for the tenants at all times of need...to come into the two closes which John Stone holdeth at Northdon, by the east side of the way that leadeth to Beaminster, called the Quar Closes, to come and draw stones at their pleasure, towards the repairing of their tenements.'

Quarries.

8. Quarry Ground & Pit Close. Junction Bed. Tithe 1835, fields 1550 & 1548.
9. Quarry Close, & Little Quarry Close, North Bowood. Junction Bed. Tithe 1835, fields 1483, 1483a & 1485.
10. Little Quarry Close, North Bowood. Bridport Sand. Tithe 1835, field 1530.
11. Great Quarry Close, North Bowood. Junction Bed. Tithe 1835, field 1527.
12. Pit Close, Netherbury. Junction Bed. Tithe 1835, field 1396.
13. Junction Bed. Possible site of quarry mentioned by Hutchins 1863, II, p 106.
14. Brick Hills, Millplash Farm. Down Cliff Clay. Tithe 1835, field 102.
15. North Warren Hill. Inferior Oolite. Tithe 1835, field 99. OS 1890. Richardson 1928, p 177, site 54.
16. South Warren Hill. Inferior Oolite. OS 1968.
17. Quarry Plot, Millplash Farm. Junction Bed. Tithe 1835, field 574.
18. Melplash Court. Junction Bed. Wilson et al. *1958, p 51.*
19. Limekiln Hill, Loscombe Farm. Inferior Oolite. Tithe 1835, field 169. OS 1890. Richardson 1928, p 175-6, site 53, Jacks Hill & Mythe Hill.
20. Marlpits. Bridport Sands. Tithe 1835, field 182.
21. Limekiln Close. Junction Bed. Tithe 1835, field 485.
22. Quarry Close, Mangerton. Tithe 1835, field 348.
23. Mangerton Hill. Inferior Oolite. Tithe 1835, fields 307 & 315. OS 1890.
24. Browns Hill. Inferior Oolite. OS 1888.
25. Brickfield. Middle Lias. Isaac Taylor 1770. Tithe 1835, field 996.
26. Brickpit Moors. Middle Lias. Isaac Taylor, 1770. Tithe 1835, fields 1014 & 1027.
27. Brick Hills, Binghams Farm. Middle Lias. Tithe 1835, field 397.

SEABOROUGH PARISH. Figure 2.

The parish lies north of the river Axe and was previously in Somerset. Seaborough Hill is an isolated hill of Chalk, Upper Greensand and Gault overlying the Inferior Oolite. There are many chalk pits on the top of the hill in addition to the quarries noted below.

Buildings.

All the buildings in the village are of Inferior Oolite, and date from the 16th to 19th centuries, but chert is used in the boundary walls. The Inferior Oolite may have been quarried in Drimpton.

Quarries.

28. Inferior Oolite. OS 1968.
29. Old quarry. Inferior Oolite. OS 1890.

30. Upper Greensand. Chert Beds. OS 1930. Wilson et al. *1958, p 154.*
31. Upper Greensand. OS 1962.
32. Inferior Oolite. OS 1930.
33. Upper Greensand. Chert Beds. Wilson et al. *1958, p 155.*

STOKE ABBOTT PARISH. Figure 3.

The northern part of the parish of Stoke Abbott is within the Beaminster Fault Belt, resulting in outliers of Inferior Oolite capping hills above the Bridport Sands. Waddon Hill has been quarried at least since Roman times. In the southern part of the parish N-S faults repeat outcrops of Middle Lias, Junction Bed and Bridport Sands. The Junction Bed has been quarried near Horsehill Farm, in the same outcrop as the quarries of North Bowood.

Buildings.

All the buildings in the village are constructed of Inferior Oolite, the more prosperous dwellings being ashlar, the lesser ones rubble. Barns and boundary walls use the more fossiliferous stone, which at Horsehill Farm is extraordinarily rich in belemnites. Buildings date from the 12th to the 19th century.

Quarries.

1. Stoke Knap. Bridport Sand. OS 1903 (gravel pit).
2. Waddon Hill. Inferior Oolite. Tithe 1841, field 252. OS 1890 (working). Richardson 1929, p 258-60, site 60. Wilson et al. *1958, p 86.*
   Waddon Hill has a Roman fort, which must have used the stone. Later quarrying has destroyed part of the fort. The stone has been used for roadstone in living memory, and the limekiln was in use until about 1930. This quarry supplied stone for building in Broadwindsor in the early 20th century.
   DRO/D466/E5-7 Ledgers of Henry Smith recording sales of stone and lime from Waddon Hill, 1888-99.
   E5. Lime ledger 1888-97. Records customers in Beaminster, Whitchurch, Stoke Abbott, Monkhood, Broadwindsor, Cotleigh, Honeycombe, Lembury Farm, Netherway, Netherbury, Thorncombe, Yondover, Marshwood, City of London, Burstock, Crewkerne, Strode Manor, Bettiscombe, Pilsdon, Fishpond, Burton Bradstock, Broadoak, Bridport, Dottery, Pymore, Salway Ash, Blakeney, Purcombe, Frimpton, Blackdown, Melplash, Meerhay, Bowood. More customers in the Stoke Abbott/Broadwindsor area. Lime and stone recorded separately under customers names and dates, but names do not always have places. More lime than stone supplied, but both worked at same time. Both building and road stone were quarried.
3. Chartknolle. Inferior Oolite. Tithe 1841, field 253. OS 1890. Richardson 1927, p 36, site 58. Still used for limeburning and boundary walls into 20th c.
   DRO/D466/E6 Lime ledger of Henry Smith 1895-7, for Chartknolle and Lower Farm.
   Customers recorded in Netherbury, Stoke Abbott, Racedown, Beaminster, Monkwood, Strode, Revelshay, Burstock, Horn Park, Ford Abbey, Broadwindsor, Hinton St. George, Whitchurch, Bettiscombe, Marshalsea, Bowood, Pilsdon, Blakeney, Vearse, Childhay, Dibberford.
   DRO/D466/E7 Sales of stone and lime, Chartknolle and Lower

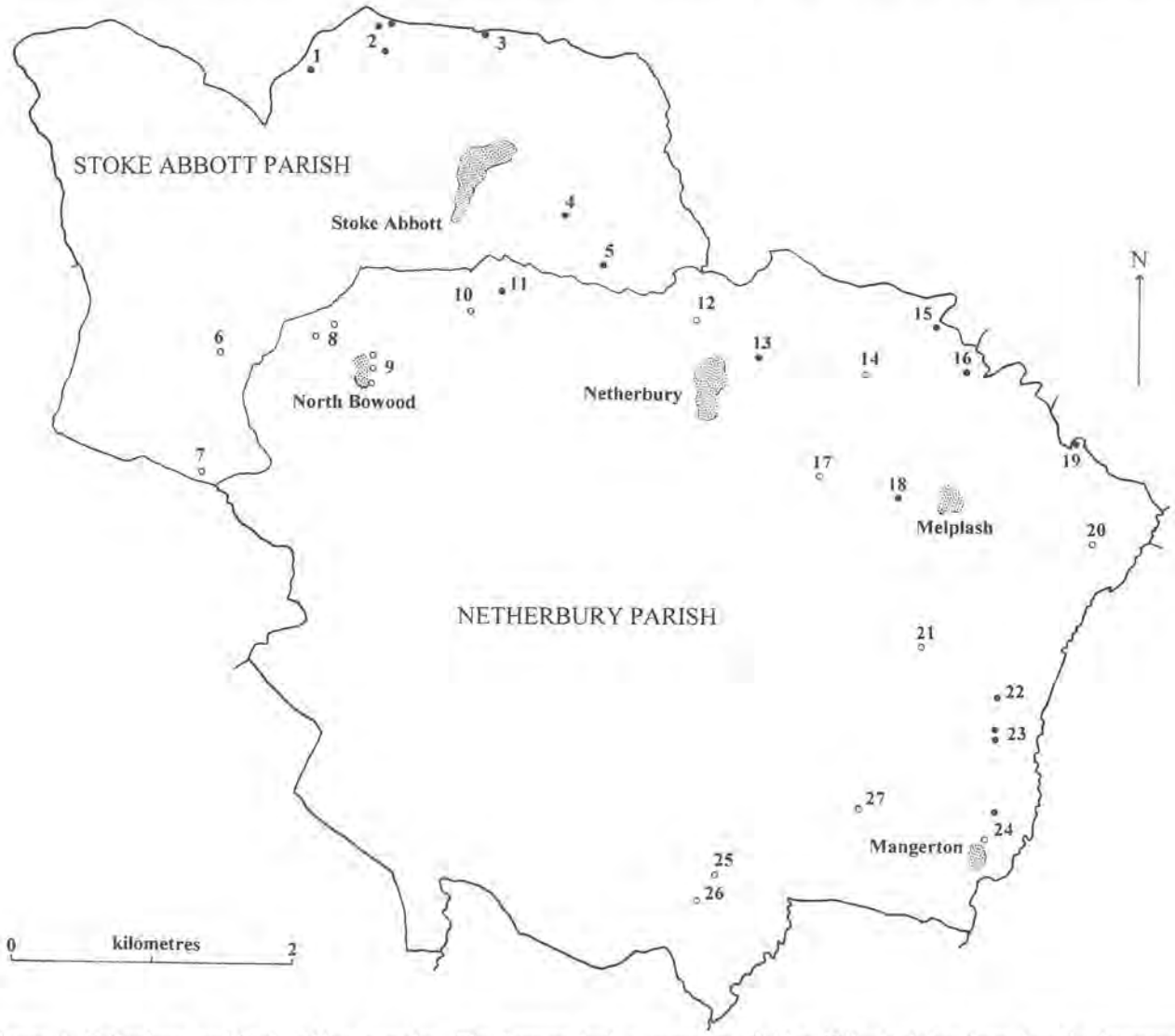

Figure 3. Netherbury and Stoke Abbott parishes. The Romans built a camp on Waddon Hill which has been largely destroyed by quarrying. Late 19th century account books for the quarry still survive in the Dorset County Record Office.

Farm, Stoke Abbott, 1898-9. Customers in Cotley, Monkwood, Racedown, Shipton, Burstock, Marshwood, Pilsdon, Bridport, Blackney, Broadwindsor.
4. Horsehill Quarry. Junction Bed. Wilson et al. *1958, p 52.*
5. Netherbury Lane. Junction Bed. Wilson et al. *1958, p 52.*
6. Pit Close, Lower Blackney Farm. Middle Lias above Starfish Bed. Tithe 1841, field 89.
7. Marlpit Close, Monkwood Farm. Green Ammonite Beds. Tithe 1841, field 73. OS 1917 (499).

SYMONDSBURY PARISH. Figure 1.

The parish of Symondsbury, between Chideock and Allington, is underlain by the Middle and Upper Lias formations. Stretching northward from the coast at West Cliff, it includes the fault which exposes the Junction Bed at Fault Corner. The village of Symondsbury, on a downfaulted block consisting of Middle Lias, Junction Bed, Bridport Sands and Inferior Oolite, is built on an outcrop of the Junction Bed, which is said to form an excellent foundation. The Junction Bed quarry at Manor Farm was used for farm walls into the 20th century.

Buildings.

The Inferior Oolite has been used for most of the buildings, though some include Forest Marble, and even some Lias limestone from the beach. Forest Marble has been used for the lower courses of several buildings. The Inferior Oolite may have come from Sloes Hill in the parish, or from Chideock and Allington quarries. The Forest Marble could have come from the West Cliff quarries, or more probably from Bothenhampton. The barn fronting the road at Manor Farm includes all the above mentioned stones, and some siltstone from the Thorncombe Sands which can be seen in the lane leading to the cemetery.

Quarries.

8. Eype Clay. OS 1890.
9. Manor Farm. Junction Bed. OS 1889.
10. Sloes Hill. Inferior Oolite. OS 1889. Richardson 1927, p 57-8, site 8.
11. West Cliff. Forest Marble. OS 1889.

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A lower molar of *Stereognathus* sp. (Reptilia, Therapsida) from the Bathonian of southern England.

P. C. ENSOM
Yorkshire Museum, York. YO1 2DR

Abstract.
In 1979 an almost complete lower right molar of the Middle Jusassic tritylodontid Stereognathus sp. was discovered in the collections of the Dorset County Museum. In the absence of associated documentation, the collection of G. M. Mansel is proposed as the likely source of the tooth. The specimen is described and it is concluded that two species of Stereognathus co-existed in the late Bathonian of southern England.

INTRODUCTION

Assessment of the geological collections in the Dorset County Museum during 1979 led to the discovery of a well-preserved lower right molar of a therapsid. The specimen has been identified a tritylodontid, *Stereognathus* sp. Charlesworth 1855. (DORCM G 10828), probably collected from the Forest Marble (Bathonian) of Dorset.

HISTORY OF THE SPECIMEN

The tooth was found amongst a collection of vertebrate remains (DORCM G 11048), with no locality or donor data, contained in a small wooden ammunition box. The vertebrate assemblage represented in this collection can be assigned with reasonable certainty to the Forest Marble of Dorset for the following reasons. Four teeth of a hybobontid shark and a bone fragment are embedded in a clacirudite containing ooliths. Woodward (1894, p. 342) recorded a similar lithology in the area south of Bothenhampton and the 'Massive shelly limestone ..... 7ft 0in' of Wilson *et al.* (1958, p. 103) is the coastal equivalent exposed on the cliff at Fault Corner, near West Bay, Dorset. The lithology is one which the writer has become familiar with in the course of work on the Forest Marble. Significantly, the pulp-cavity of the tooth itself contains traces of sediment which bear a striking similarity to the colour of the unlithified shell-sands which are associated with the limestone sediment described above. The formation and distribution of these shell-detrital calcirudites has been studied by Holloway (pers. comm. and 1983). He has shown that this lithology occurs around the middle of the Forest Marble succession in most sections between Bath and the Dorset coast.

The species represented in this collection and their preservation compares closely with the fauna collected from the calcirudites at West Cliff by the writer. A tooth fragment from this locality has previously been described and identified as *Stereognathus* (Ensom 1977).

Documentary evidence in the Dorset County Museum suggests that the collection was made by Mr G. M. Mansel during the last part of the ninetheenth century. J. C. Mansel-Pleydell (1896) recorded in the President's Anniversary Address to the Dorset Natural History and Antiquarian Field Club that 'Mr G. M. Mansel has several of these [*Strophodus magnus*] palatal teeth from the Forest Marble of the neighbouring [to Swyre] parish of Puncknowle,' (Mansel-Pleydell 1896). The Accession Register (1905-1936) has the following entry for June 9th 1913: 'Three trays of fossils, teeth, spines, &c collected by Mr George Mansel from the quarries and cliffs near Puncknoll [*sic*], Abbotsbury. Presented by Mrs Mansel Puncknoll [*sic*], Abbotsbury.' Mrs Mansel was his sister-in-law; G. M. Mansel was unmarried, and after retiring from the navy, in which he was a lieutenant, he lived in Puncknowle, perhaps with his brother at the manor. (Major J. C. Mansel, pers. comm.).

A further clue may be afforded by a small box lid in the unmarked collection bearing the label 'RAMSEY Goldsmith & Jeweller TO HER MAJESTY 51 FORE STREET DEVONPORT'. The jeweller is first recorded in Fore Street in 1830. The last record in the street directory is in 1862. (Misses O. M. Riding and E. A. Bickford, pers. comms). G. M. Mansel was stationed at Devonport during 1872 (P. T. van der Merwe, pers. comm.). While the dates do not overlap, there remains a strong temptation to suggest a connection at present unproven.

There is no record of the collection of G. M. Mansel being transferred during the 1950s when parts of the palaeontological collection were passed to the British Museum (Natural History). I conclude that all or a part of the collection of G. M. Mansel, referred to above, is the one discovered amongst the geological collections of the Dorset County Museum.

DESCRIPTION

Order THERAPSIDA
Suborder CYNODONTIA
Infraorder EUCYNODONTIA
Superfamily TRITYLODONTOIDEA
Family TRITYLODONTIDAE
Genus STEREOGNATHUS Charlesworth 1855

Plate 1, 1 - 9

The tooth is longer than wide. The lateral margins of the tooth are almost parallel. (Mesial - distal = 5.3 mm; Lingual - buccal = 3.2 mm).

There are two longitudinal rows of cusps. The lingual cusps are narrower and higher than the buccal cusps; they are offset distally by 0.5 - 0.75 mm. The mesial faces of the cusps are strongly convex. Three of the distal surfaces are concave and their faces are angled towards the lateral margins of the tooth. The fourth is heavily worn. The median surfaces of the lingual and buccal cusps are all slightly concave, whereas their lateral faces are slightly convex. The mesial and distal faces of the cusps are divided by crests which diverge from the worn apices of the cusps and slope in a distal direction. The lateral crests merge with the lateral margins of the distal cusps and the median edges pass down into the longitudinal groove which runs from the mesial to the distal margin, dividing the two rows of cusps. The crests of the mesial cusps partially enclose the bases of the mesial faces of the distal cusps, producing distinctive crescentic valleys which are not as deep as the median groove. Where the crests of the mesial cusps merge with the distal cusps, there is a narrowing of that part of the enclosed distal cusp. The apices of the mesio-lingual and buccal cusps are all heavily worn, forming horizontal surfaces.

Mesio-lingual cusp.

Dentine is exposed confluently along the worn crests forming an elongated assymmetric crescent which encompasses the now higher concave distal face except where the distal extremity of the lingual crest, which is not as worn, remains slightly higher.

Disto-lingual cusp.

The distal face is almost absent as is much of the enamel on the lateral and median surfaces of the mesial face due to excessive wear along the now absent crests. The apex of the cusp is less worn than the others, though dentine is exposed at the tip. A wear-facet slopes towards the lingual margin.

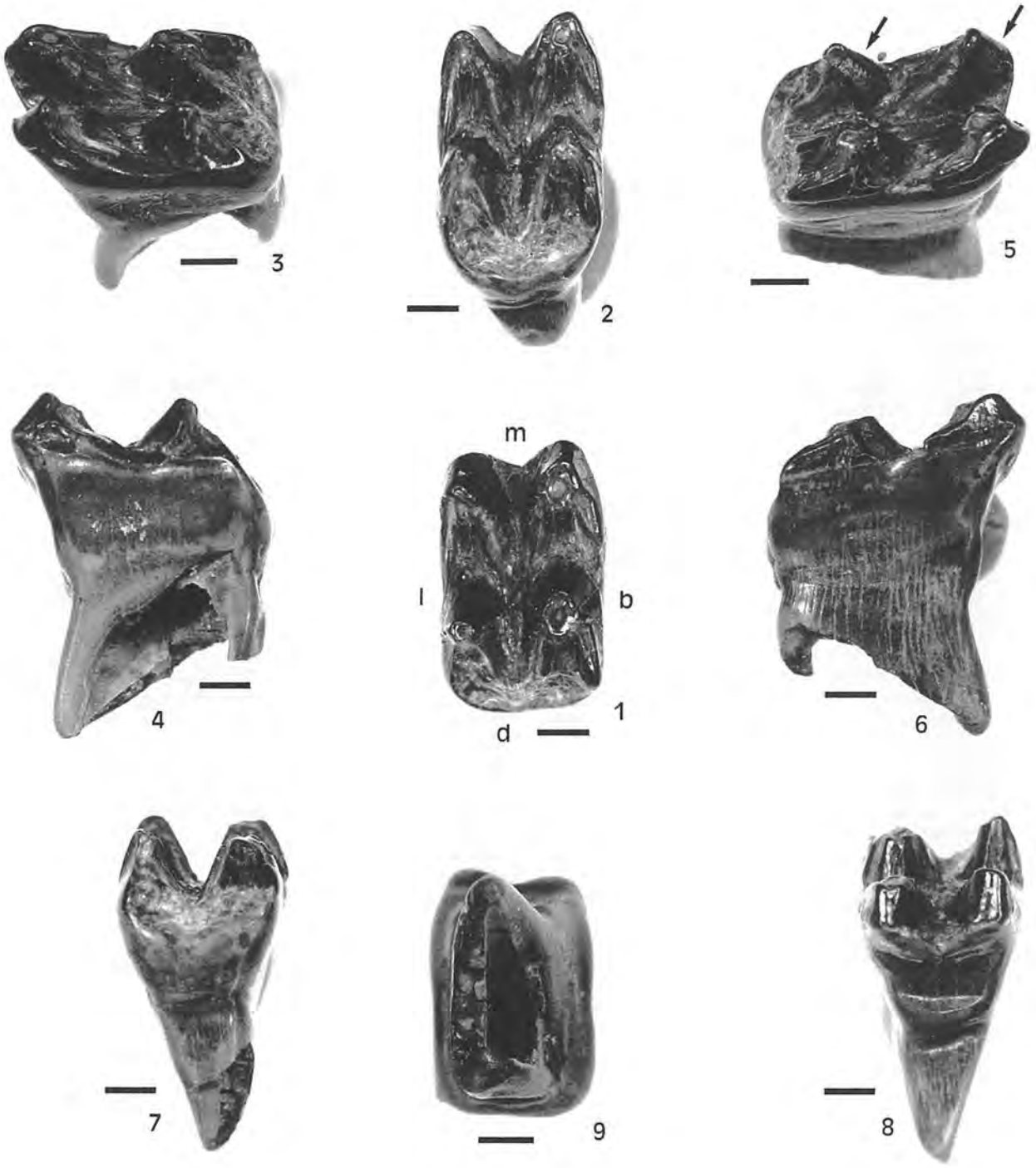

Plate 1: A lower right molar of Stereognathus ?hebridicus *from the Forest Marble (Bathonian) of Dorset DORCM-G10828. 1. Occlusal aspect where m = mesial, d = distal, b = buccal, 1 = lingual; 2. Oblique disto-occlusal aspect; 3. Oblique lingual aspect; 4. Lingual aspect; 5. Oblique buccal aspect. Arrows point to cusps where the illumination has highlighted the ridges on the median faces of the lingual cusps; 6. Buccal aspect; 7. Distal aspect; 8. Mesial aspect; 9. Root. Scale bar = 1 mm.*

Mesio-buccal cusp.
The crests are sufficiently worn to expose dentine along much of their length. The buccal crest is present for a short distance at its distal extremity, remaining higher than the adjacent distal face of the cusp. The crest is then abruptly terminated. This is the result of wear which has also removed the enamel from part of the adjacent distal face of the cusp. These edges form an elongate asymmetric crescent. The disto-median surface of this and the disto-lingual cusp are both evenly worn with the enamel removed from the floor and sides of the adjacent longitudinal groove.

Disto-buccal cusp.
Where the crests of the mesio-buccal cusp merge at the base of the cusp, the convex mesial face is pinched in. On the buccal margin the subsequent distal expansion forms a small, apically orientated, ridge which merges with the enamel on the side of the cusp. This may have been confluent with the mesial buccal crest. The median margin has a slight concavity which is present for the full height of the preserved cusp. Within this is a *c.* 0.25 mm apically oriented ridge. The disto-lingual cusp appears to have had similar features which now mark the limit of the enamelled mesial face. The crests form a nearly confluent elongated symmetric crescent. The symmetry of this crest may be due to the abrupt truncation of the distal surface of this cusp by a broad depression on the distal occlusal surface. The disto-lingual cusp has a similar but narrower depression. They are interpreted as the facets produced by the adjoining tooth's imbrication. The depressions echo the shape of the mesial margin of this tooth which also exhibits wear commensurate with such an overlap.

The enamel of the median faces of the four cusps have subdued ridges more or less parallel to the median groove (arrowed on Pl. 1.5). They disappear on the mesial extremities of the cusps. The enamel of the concave distal faces of the mesial cusps exhibit similar ridges.

Root.
The tooth has an incomplete, apparently single root which is mesio-apically elongated. The transverse section close to the cervix is sub-quadrate.

The mesial surface extends 5.7 mm below the edge of the enamelled surface of the cusp. The proximal surface is worn where it imbricated with the adjoining tooth. Initially it slopes steeply distally. After 2.2 mm there is a bulge after which the root reflexes mesially. This portion of the root terminates in a rounded surface, presumably caused by abrasion prior to deposition. The distal surface extends only 2.4 mm from the worn equatorial margin and is terminated by a fresh fracture. The missing fragment has not been found amongst the collection of bone fragments and teeth in which the specimen was found. The profile of this surface echoes that of the mesial one. The lingual suface of the root has been damaged prior to deposition; the fracture is now well rounded and the structure of the dentine is visible. The distal buccal corner is worn. The buccal surface is well preserved. There is a shallow but pronounced constriction immediately below the enamel of the buccal cusps. Initially the surface is gently convex, then concave before gradually tapering apically. The root canal/pulp cavity measures 0.9 mm distally, narrowing to 0.2 mm mesially. The dentine wall surrounding the cavity attains a maximum thickness of 0.5 mm.

DISCUSSION

Rows of strongly concentric cusps separated by equally pronounced crescentic valleys and each row separated by a mesio-distal groove are characteristic of tritylodontids. The Jurassic multituberculates, while possessing cusps often arranged in rows, do not have the stong crescentic valleys seen in tritylodonts, though some advanced Tertiary multituberculates do (Kielan-Jaworowska pers. comm).

Two outer and two inner cusps, all crescentic, are characteristic of the lower molars of tritylodontids. The lingual cusps are narrower than the buccal cusps in this specimen, thereby permitting identification as a right lower molar.

Assuming that the source of the tooth has been correctly identified as the Forest Marble, the only recorded Middle Jurassic (Bathonian) tritylodontid is *Stereognathus*. *S. ooliticus* was described from the Middle Bathonian, Stonesfield Slate, by Edward Charlesworth (1855). More recently a tentative identification of *S. ooliticus* was made for a fragment of a tooth from the Upper Bathonian of Dorset (Ensom 1977) and for teeth from the Lower Bathonian Hornsleasow Quarry in the Cotswolds (Metcalf *et al.* 1992).

The size of DORCM G 10828, 5.3 mm long and 3.2 mm wide, is larger than the specimens assigned to *S. ooliticus* but is similar to lower molars of *Stereognathus hebridicus* (Waldman and Savage 1972) which measured 5.3 mm and 5.8 mm long and 3.1 mm and 3.7 mm wide.

The latter species is known only from the Bathonian Kilmaluag Formation (formerly the Ostracod Limestones), Great Estuarine Group, Skye. An exact correlation of the Scottish sequence with the Bathonian strata which have yielded *Stereognathus* teeth in the south of England (Oxfordshire, Gloucestershire and Dorset) is not possible.

If the identification of the very worn fragment recovered in 1974 (Ensom 1977) is correct, and the one described herein is confirmed as *S. hebridicus*, we have evidence of two species of *Stereognathus* co-existing in the late Bathonian in southern Britain and the geographical range of *S. hebridicus* will have been extended.

ACKNOWLEDGEMENTS

I thank the Dorset County Museum for the loan of this specimen. The photographs were taken using a Leica Aristophot in the Department of Geology at the National Museum of Wales, Cardiff; I am most grateful to them, and to Tom Sharpe for his instruction in the use of the equipment and other technical help. Major J. C. Mansel, Dr P. T. van der Merwe (National Maritime Museum), Dr H. S. Torrens and the Misses E. A Bickford and O. M. Riding (Devon Record Services) helped greatly in elucidating the history of G. M. Mansel. Finally I thank Professors J. D. Hudson, K. A. Kermack and Z. Kielan-Jaworowska and Drs S. Holloway, J. J. Hooker, A. C. Milner and D. Sigogneau-Russel who have variously discussed, commented on, or read and criticised earlier drafts of this paper.

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A supplement to the insect fauna from the Purbeck Group of Dorset

E. CLIFFORD, R. CORAM, E.A. JARZEMBOWSKI & A.J. ROSS
Contact address: Bishopstone Manor South, Bishopstone, E. Sussex, BN25 2UD

ABSTRACT

This the first update to the provisional checklist in the Proceedings in 1993 and includes the addition of three insect orders (Thysanoptera, Raphidioptera, Mecoptera), the family placing of many genera, and a critical revision of the order Blattodea.

NEW ORDINAL OCCURRENCES

Jarzembowski (1993) listed some 10 orders with named species as occurring in the Purbeck Group of Dorset. In addition, Raphidioptera (snakeflies) were cited as present, and a psocopteran (barklouse) from the Middle Purbeck Beds of Durlston Bay was figured by Jarzembowski (1984: fig. 29). The former order, as well as Mecoptera (scorpionflies) and Thysanoptera (thrips), is figured herein for the first time (Figures 1-4); detailed taxonomic descriptions will be published elsewhere. Thysanoptera were previously doubtfully known from the British Mesozoic. This article augments the provisional checklist and so uses the same abbreviations and bibliography, except that 018- numbers refer to registration at the Booth Museum of Natural History, and cpt, counterpart; pt, part.

Snakeflies are uncommon (rare) in the Purbeck Group but are now known from the Lower and Middle Purbeck Beds. The well-preserved forewing in Figure 1 is from Clements' Bed 175, and may be referred to the extinct genus *Mesoraphidia* in the Mesozoic family Mesoraphidiidae following Jarzembowski (1987), because: (a) the costal area is slightly expanded anteriorly; (b) the subcostal vein is straight and reaches the anterior margin near the middle of the wing; (c) the radial sector vein separates in the basal half of the wing; (d) there are three radial cells present; (e) the anterior and posterior branches of the median vein diverge basally almost at the same point; (f) the anterior branch of the cubital vein joins the median vein basally, distally of the separation of the median from the stem of the radius; (g) the pterostigma is long, about one third of the wing length.

Extant snakeflies are carnivorous, the prey comprising small insects including aphids which have been found recently in the Dorset Purbecks.

Scorpionflies are also uncommon (infrequent) in the Purbeck Group, but are now known from the Middle and Lower Purbeck Beds of Dorset. The two wings figured here from Clements' Bed 175 belong to the Mesozoic family Orthophlebiidae because: (a) the wings are some three times as long as broad; (b) the first branch of the radius is simple (forewing) or forked (hindwing); (c) the radial sector has at least five branches of which the first two are shortest; (d) the first upper fork of the radial sector branches basally of the distal end of the subcosta; (e) the median has a fifth branch in the forewing.

The wings may be referred to the family's principal genera, *Protorthophlebia* and *Mesopanorpa*, following Jarzembowski

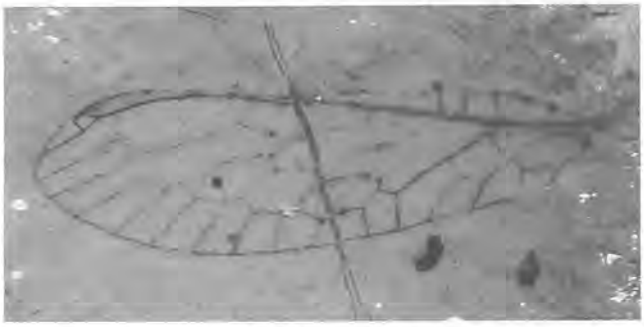

Figure 1. Forewing of ***Mesoraphidia*** *sp. (Raphidioptera: Mesoraphidiidae), Middle Purbeck, Durlston Bay, cpt of 018371, collector Mr R. Coram. 10.6 mm long.*

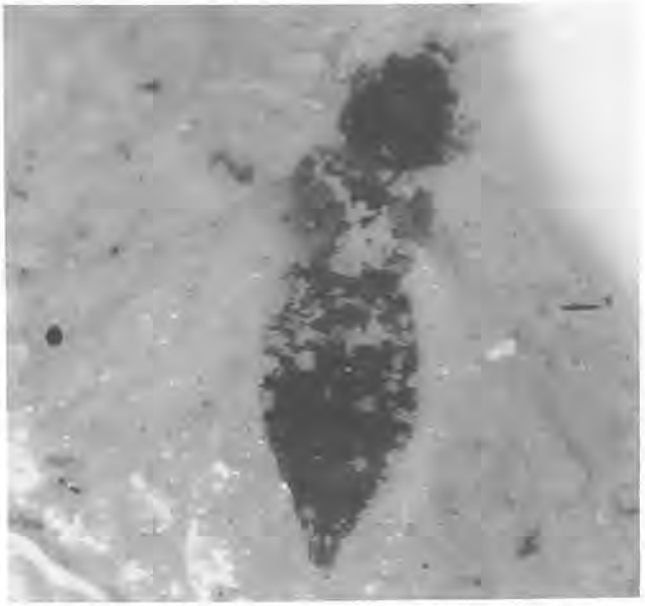

Figure 2. A fossil thrip (terebrant female), Lower Purbeck, Durlston Bay, cpt of 018374, collector Mr R. Coram. 1.9 mm long. Determined as cf. Heterothripidae by Dr L.A. Mound, c/o Natural History Museum.

Figure 3. Forewing of ***Mesopanorpa*** *sp. (Mecoptera: Orthophlebiidae), Middle Purbeck, Durlston Bay, In. 64643, collector Dr E.A. Jarzembowski. 7.6 mm long.*

Figure 4. Hindwing of ***Protorthophlebia*** *sp. (Mecoptera: Orthophlebiidae), Middle Purbeck, Durlston Bay, 018373, collector Dr E.A. Jarzembowski. 6.5 mm long.*

(1987). In the former, the first lower and upper forks of the radial sector are at the same level, whereas in the latter, the forks are well separated. Orthophlebiidae were probably scavengers of dead insects by analogy with some Recent Mecoptera.

[E.A.J. & R.C.]

FAMILY CLASSIFICATION OF INSECT GENERA

This supplement is based on Carpenter (1992), which was unavailable during preparation of the provisional checklist. Family considerations were therefore excluded from the latter. Not all genera from the Purbeck Group were considered in the *Treatise*. These are marked with an asterisk (*) below, and are given with author, date and provisional family placing based on Dorset species. The general cut-off date of the literature survey in the *Treatise* is 1983. Some updating consistent with Ross & Jarzembowski (1993) is given below.

Additional reference: Rohdendorf & Davis (1991); abbreviations: det. WRD, determined by Mr W.R. Dolling, c/o Natural History Museum.

Order Odonata (Dragonflies)
- Family Aeschnidiidae
  - *Aeschnidium*
- Family Petaluridae
  - *Cymatophlebiopsis*
  - *Libellulium (=Cymatophlebia)*
- Family Tarsophlebiidae
  - *Tarsophlebia*
- Family Uncertain
  - *Necrogomphus (=Mesogomphus)*
- Order and Family Uncertain
  - **Agrionidium* Westwood, 1854

N.B. *'Libellulium' kaupii* is not a dragonfly.

Order Orthoptera (Grasshoppers and crickets)

N.B. According to A.V. Gorokhov, *Protogryllus* now occupies its own family (Protogryllidae). Also Prophalangopsidae is distinguished from Haglidae; *Termitidium* belongs in the former, and the placing of the haglid genera below is doubtful.
- Family Elcanidae
  - *Panorpidium (=Elcana)*
- Family Gryllidae (True crickets)
  - *Protogryllus*
- Family Haglidae
  - *Mesogryllus*
  - *Procyrtophyllites*
  - *Zalmona*
- Family Uncertain
  - **Ensiferorum* Zeuner, 1939
  - *Termitidium*

'Order Phasmatodea (Stick insects)'
- *Blattidium* Westwood, 1854 (=**Chresmodula* Handlirsch, 1939)
- **Gryllidium* Westwood, 1854
- **Raphidium* Westwood, 1854

Order Hemiptera (True bugs)
- Family Cicadellidae (Leafhoppers)
  - *Homopterulum*
- Family Lygaeidae (det. WRD)
  - **Cimicidium* Westwood, 1854
  - **Lygaeites* Heer, 1853
- ?Family Naucoridae (det. WRD)
  - **Anacoloptera* Handlirsch, 1906
- Family Notonectidae (Backswimmers)
  - *Nepidium*
- Family Palaeontinidae
  - **Cyllonium* Westwood, 1854
- cf. Family Progonocimicidae
  - **Homopteron* Handlirsch, 1906
- Family Uncertain
  - *Aphidulum*
  - *Cercopidium*
  - *Cicadellium*
  - **Dimeropterum* Handlirsch, 1906
  - **Mesopsyllidium* Bekker-Migdisova, ms name
  - **Scylacocoris* Handlirsch, 1906

Order Neuroptera (Lacewings)
- Family Nyphitidae
  - *Sialium*
- Family Uncertain
  - *Osmylopsis*
  - *Pterinoblattina*

N.B. *Pterinoblattina* belongs in the Brongniartiellidae (Ross & Jarzembowski, 1993).

Order Coleoptera (Beetles)
- Family Uncertain
  - *Agrilium*
  - *Bothroptera*
  - *Buprestium*
  - *Carabidium*
  - **Coleopteron* Handlirsch, 1906
  - *Ctenicerium*
  - *Curculium*
  - **Diaperidium* Westwood, 1854
  - *Diatarastus*
  - *Elaterium*
  - *Epomenus*
  - *Halticophana*
  - *Harpalidium*
  - *Harpalomimes*
  - *Helopidium*
  - *Helopium*
  - *Hydroporopsis*
  - *Ironicus*
  - *Kelidus*
  - *Lamiophanes*
  - *Metagrilium*
  - *Micrelaterium*
  - *Pachycoleon*
  - *Pantodapus*
  - *Parabuprestium*
  - *Paragrilium*
  - *Prionophana*
  - *Prophasis*
  - *Prosthenostictus*
  - *Pseudocymindis*
  - *Pseudus*
  - *Semiglobus*
  - *Telephorium*
  - *Tentyridium*
  - *Zygadenia*

Order Diptera (True flies)
- Family Anisopidae (Window midges)
  - *Thiras*
- Family Tipulidae (= Architipulidae)
  - **Corethrium* Westwood, 1854
- Family Bibionidae
  - **Pleciomyia* Handlirsch, 1939
- Family 'Fungivoritidae'
  - **Cecidomium* Westwood, 1854
- Family Protopleciidae
  - **Simulidium* Westwood, 1854

Order Trichoptera (Caddisflies)
- Family Necrotauliidae
  - *Pararchitaulius*
- Family Uncertain
  - *Paratrichopteridium*

Order Hymenoptera (Wasps)
- Family Myrmiciidae (= Pseudosiricidae)
  - *Myrmicium*

[E.C. & E.A.J.]

A REVISED CHECKLIST OF BLATTODEA (COCKROACHES)

This list is based on examination of the Rev. P.B. Brodie's collection in the Natural History Museum. New information is in **bold**, including specimen registration numbers of type and figured material. The objective synonymy is due to Scudder (1886) redescribing specimens previously figured by Westwood (1854) and named by Giebel (1856) (Figures 5-8), or due to parts and counterparts being described as different species. Both Westwood's and Scudder's figures are inaccurate.

Family Diechoblattinidae

Diechoblattina wallacei Scudder. **I. 12811, [DB]**, Sc'86: pl. 48, fig. 1.

***Diploroblattina bailyi* Scudder. I. 12796 (pt), In. 20784 (cpt), [DB], Sc'86: pl. 48, fig. 5.**

Family Mesoblattinidae

Artitocoblatta gossii (Scudder). **I. 12790, [DB]**, Sc'86: pl. 46, fig. 15.

'Blattidium' molossus Westwood. **I. 11958**, MP DB, W'54: pl. 15, fig. 26.

Durdlestoneia antiqua (Giebel). LP DB, W'54: pl. 17, fig. 10.

?*Elisama scudderi* Handlirsch. I. 12796 (pt), In. 20784 (cpt), [DB], Sc'86: pl. 46, fig. 3.

***Malmoblattina brodiei* (Scudder). I. 12802, [DB], Sc'86: pl. 47, fig. 7.**

***Malmoblattina bucktoni* (Scudder). I. 12806, [DB], Sc'86: pl. 47, fig. 8.**

***Malmoblattina bucktoniana* Handlirsch. I. 12807, [DB], Sc'86: pl. 47, fig. 12.**

***Malmoblattina hopei* (Scudder). I. 12803, [DB], Sc'86: pl. 47, fig. 11.**

***Malmoblattina mantelli* (Scudder). I. 12804, [DB], Sc'86: pl. 47, fig. 9.**

***Malmoblattina murrayi* (Scudder)(=?*Mesoblattina kirkbyi* (Scudder)). I. 12801 (pt), I. 12808 (cpt), [DB], Sc'86: pl. 47, figs 3, 4.**

?*Mesoblattina anceps* (Giebel). MP DB, W'54: pl. 15, fig. 22.

?*Mesoblattina elongata* (Giebel). **(=*Rhipidoblattina bucklandi* Scudder)). I. 12800**, MP DB, W'54: pl.15, fig. 23; **Sc'86: pl. 47, fig. 2.**

?*Mesoblattina exigua* (Scudder). **I. 12818**, LP DB, W'54: pl. 18, fig. 38.

?*Mesoblattina mclachlani* (Scudder). **I. 12813**, LP DB, W'54: pl. 18, fig. 35; **Sc'86: pl. 48, fig. 18.**

?*Mesoblattina minima* (Scudder). **I. 3698**, MP **DB**, W'54: pl. 15, fig 14; **Sc'86: pl. 48, figs 2, 8a, 8g, 11.**

?*Mesoblattina murchisoni* (Giebel). **(=?*Mesoblattina higginsii* Scudder)**. I.12798, LP DB, W'54: pl.18, fig. 43; **Sc'86: pl. 47, fig. 14.**

?*Mesoblattina 'murchisoni'* (Giebel). I. 12799, LP DB, Sc'86: pl. 47, fig. 5.

?*Mesoblattina ramificata* (Giebel). **I. 12227**, MP DB, W'54: pl. 15, fig. 20.

?*Mesoblattina* sp. Handlirsch. **I. 11991**, MP DB, W'54: pl. 15, fig. 19.

?*Mesoblattina* sp. Handlirsch. I. 12794, [DB], Sc'86: pl. 46, fig. 6.

Figure 6. Forewing of ?Mesoblattina murchisoni (Giebel) (Blattodea: Mesoblattinidae), Lower Purbeck, Durlston Bay, holotype, I. 12798, collector Rev. P.B. Brodie. 13 mm long.

*Figure 7. Forewing of **Rithma morrisi** Giebel (Blattodea: Mesoblattinidae), Lower Purbeck, Durlston Bay, holotype, I. 12305, collector Rev. P.B. Brodie. 10.5 mm long.*

Figure 5. Forewing of ?Mesoblattina elongata (Giebel) (Blattodea: Mesoblattinidae), Middle Purbeck, Durlston Bay, holotype, I. 12800, collector Rev. P.B. Brodie. 10 mm long.

Figure 8. Forewing of Rithma westwoodi Giebel (Blattodea: Mesoblattinidae, Lower Purbeck, Durlston Bay, holotype, I. 12793 (cpt), collector Rev. P.B. Brodie. 10.5 mm long.

?*Mesoblattina swintoni* Scudder. I. 12797, [DB], Sc'86: pl. 46, fig. 10.
?*Mesoblattina westwoodi* (Scudder). **I. 12225**, LP DB, W'54: pl. 18, fig. 28.
***Rithma morrisi* Giebel (=*Malmoblattina peachii* (Scudder)).** I. 12305, LP DB. W'54: pl. 18, fig. 34; **Sc'86: pl. 47, fig. 10.**
Rithma westwoodi Giebel **(=*Rithma purbeccensis* Giebel; =*Rithma daltoni* Scudder). I. 12795 (pt), I. 12793 (cpt)**, LP DB, W'54: pl. 18, figs 22, 32; **Sc'86: pl. 46, figs 11, 16.**

Family Uncertain
Incomplete wing. I. 12226 (pt), I. 12240 (cpt), MP DB, W'54: pl. 15, fig. 24.
Thoracic plates. I. 12483, I. 12482, LP DB, W '54: pl. 18, figs 7, 13.

Insecta Incertae Sedis
'Diechoblattina' ungeri (Giebel). LP DB, W'54: pl. 17, fig. 13.
[A.J.R.]

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This is P.R.I.S contribution number 341 for one of us. [E.A.J.]

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Dorset Archaeology in 1993

The contributions for 1993 are arranged by project type in the following order: assessments and evaluations (interim notes), watching briefs, standing building and earthwork surveys, and finds reports. Within those headings the notes are organised by location in alphabetical order.

ASSESSMENTS AND EVALUATIONS

BRIDPORT COMMUNITY HOSPITAL, ALLINGTON

The assessment by means of machine-excavated trenches of the Bridport Community Hospital site, Allington Bridport (SY 457939), revealed a scatter of worked stone of prehistoric date in the southern part of the investigated area. These artefacts were associated with at least two shallow ditches of uncertain function. No evidence for past activity was recovered from the northern part of the site within which considerable disturbance had already been caused by the building of the previous hospital.

Alan Graham and Julian Richards
AC *archaeology*

BLANDFORD CAMP

An evaluation of the line of a ploughed-out linear earthwork at the entrance to Blandford Camp (ST 91350755) demonstrated that the only element which survived was the ditch, the upper levels of which contained much modern debris. Subsequent observation of topsoil stripping for the construction of a turning area exposed a length of the ditch together with a parallel line of regularly-spaced postholes. Although sample excavation failed to produce dating evidence for either the ditch or the postholes their shared alignment may demonstrate a degree of contemporaneity.

Andrew Weale and Julian Richards
AC *archaeology*

STOUR PARK, BLANDFORD ST MARY

A two-stage archaeological evaluation was carried out to determine the presence and nature of any archaeological deposits in open fields at Stour Park, Blandford St. Mary (centred on ST 888057). Initially trenches revealed that much of the south-eastern area of the site had been damaged by earlier quarrying, some of which may have been associated with the construction of the Blandford bypass, which formed the eastern boundary of the site. A single ditch of probable medieval date survived between and below the deeper areas of disturbance. The northern and south-eastern areas of the site were, however, undisturbed and trenches revealed a number of features of medieval date. These included a hollow way, with probable rectilinear enclosures adjacent to it; a number of postholes suggesting structures; and a cobbled trackway with adjacent ditches and pits. The pottery from the excavated features had a date range of 12th-15th century. Worked flint was recovered from a number of layers but no features earlier than the medieval period were found.

A second stage of evaluation on the western part of the proposed development site revealed further the extent of a medieval settlement. This demonstrated a high level of survival of the archaeological deposits, with evidence of structures along roads or trackways. Pottery suggested a potentially late Saxon date for the origins of the settlement. In the lower, northern part of the site, on the edge of the river flood plain, evidence of late Bronze Age activity was revealed, being a probable ring ditch and at least one cremation burial.

Alan Graham and Peter W. Cox
AC *archaeology*

WEST VIEW FILLING STATION, CHARMINSTER ROAD, BOURNEMOUTH

The archaeological evaluation of the area for a proposed development at SZ 0965 9314, comprised the excavation of two $1m^2$ trial pits. Two former barrows are recorded in the area, one of which probably lay partly within the boundary of the present filling station. No trace of an earthwork associated with the barrow was found, but evidence for a buried soil indicates that there is still potential for subsoil deposits from the barrow ditch.

Peter W. Cox
AC *archaeology*

WHITFIELD, BRADFORD PEVERELL

A field evaluation was carried out of the site of a bungalow known as 'Whitfield' at Bradford Peverell (SY 673915) in order to determine the impact of proposed redevelopment on the projected line of the Dorchester Roman aqueduct. A single machine-excavated trench revealed no trace of the aqueduct or of any other archaeological features or artefacts.

Jaqueline Dodd and Julian Richards
AC *archaeology*

ARCHAEOLOGICAL ASSESSMENT ON THE LINE OF THE PROPOSED CHIDEOCK AND MORCOMBELAKE BYPASS (SY 377937 - SY 449928).

An Interim Statement

The Liverpool University Field Archaeology Unit was commissioned by the Environmental Advisory Unit Ltd of Liverpool to carry out a series of assessments for the proposed A35 Chideock and Morcombelake bypass. The work was funded by the Department of Transport through the consulting Engineers, MRM of Taunton. Nearly 300 features and sites were noted along the route, ranging from field boundaries and lynchets to withy beds and standing buildings. Evidence for earlier turnpike roads of 1769 and 1825 along this general line survived in the form of earthworks and milestones. Field walking was carried out in 17 locations and produced a considerable quantity of artefacts, primarily of post-medieval date. The more significant sites and scatters are described in this journal. The full archive and finds will be deposited in the Dorset County Museum in due course.

Site A - The 1769 Turnpike Road (SY 37809390 to SY 3965388)

The 1769 turnpike road which was replaced by the present A35 in 1825, only survives as a landscape feature in a few short section, despite its comparatively recent date.

Site B - Ship Farm, Stanton St Gabriel (SY 4001 9402)

A building survey and trial excavations were carried out at Ship Farm. This had formerly been the Ship Inn, an important coaching inn before it was by-passed by the new turnpike road in 1825. The present house is of brick and was probably built to serve the turnpike road constructed in 1769. The principal outbuilding, now clad in brick and stone, was found formerly to have been a substantial building of cob construction which may well have been the inn prior to 1769. Trial excavations failed to locate any substantive remains of earlier buildings or structures on the site although there was evidence for brick making, perhaps for the 1769 inn, to the south of the site. Finds included 18th century pipes, glass and pottery which are likely to derive from the inn.

Site C - Medieval Pottery Scatter, Chideock (SY 422932)

Structured field walking, geophysical survey and trial excavations were carried out in a field to the north-west of Chideock Castle. The field walking produced a large quantity of medieval and post-medieval pottery. The medieval pottery consisted of a range of gritty wares dating from the mid-13th to mid-14th centuries, suggesting active use of this area during that period. Trial trenches located gulleys and post holes surviving below the plough soil and a substantial hollow-way leading towards the Castle. Fine, sandy wares of late 15th to late 16th century date gave way to Donyatt and Verwood wares in the 17th and 18th century; Verwood wares were particularly common.

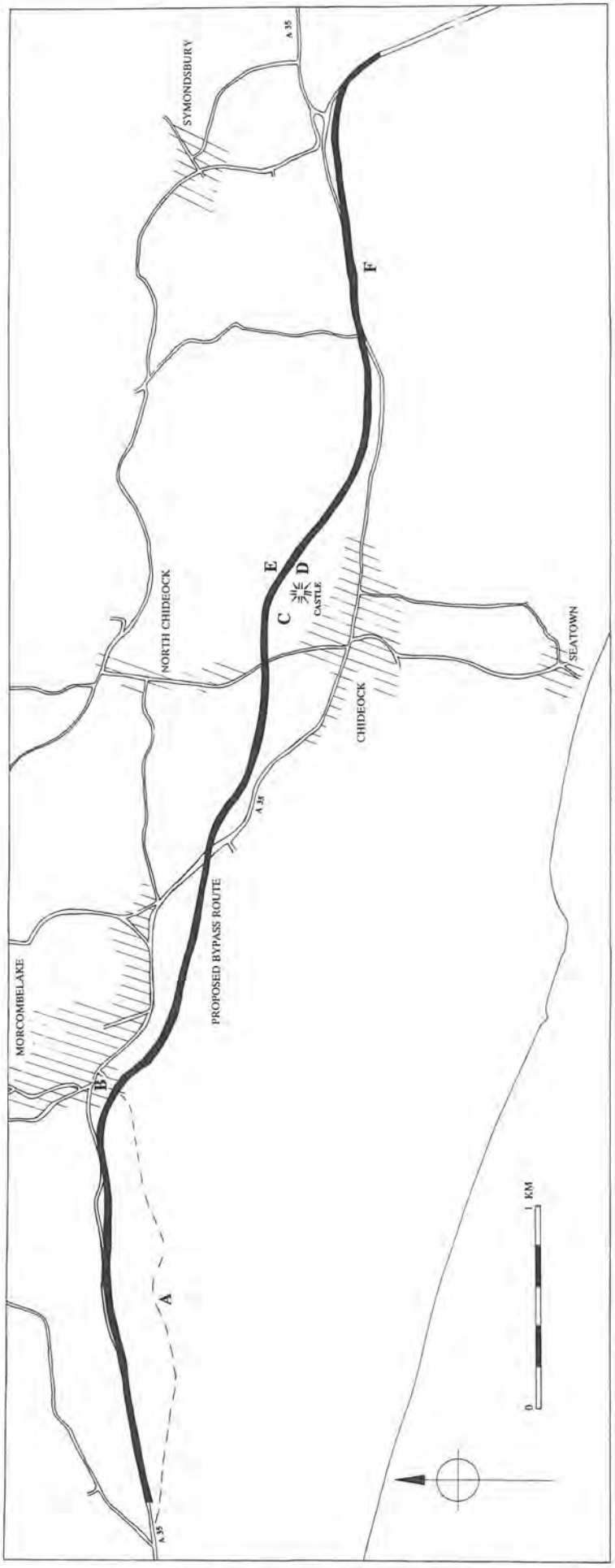

Figure 1. Proposed Chideock and Morcomblake Bypass showing location of sites.

Site D - Crop Marks, Chideock (SY 42539314 and SY 92569321)
The desk top survey identified two sets of crop mark features overlooking and to the east of Chideock Castle. Machine cut trenches were excavated across the line of these features which proved to have been caused by modern field drains.

Site E - Chideock Castle Deer Park (centred on SY 426932)
The proposed road line passes through the former deer park which lay to the north and east of Chideock Castle. The park was mentioned in the Castle accounts of 1491/2 but by 1583 had been turned over to tillage. Many of the internal divisions can still be traced and the perimeter of the park is represented by a large double ditched bank to the north-east of the Castle. Two measured profiles of the bank and ditches were drawn and an environmental sample taken from waterlogged deposits in one of the ditches.

Site F - Earthworks on Eype Down (centred on SY 441928)
This area of permanent pasture adjacent to the earthworks on Eype Down, which would be partly destroyed by the road, was surveyed by fluxgate gradiometer. No further traces of prehistoric or later activity were detected.

David Alan Higgins and Peter John Davey
University of Liverpool

DOREY'S FARM, EAST HOLME

The archaeological evaluation of the proposed clay pit at Dorey's Farm, East Holme, comprised the excavation and recording of a 1.5% sample of the application area (around SY 913848). A high number of subsoil features was noted, particularly towards the east of the survey area. A selection of these features were excavated, and found to be largely natural in origin. Several were land drains. Of the remaining, which may be considered of archaeological origin, none contained any artefacts.

Peter W. Cox
AC *archaeology*

DUDSBURY ROAD, FERNDOWN

An assessment of a small housing development (SZ 079986) was carried out in May, 1993. The site is within 50m of Parley Barrow. Three test holes were excavated without encountering archaeological material.

The work was commissioned by the landowner, Mrs M. Guilmant, and the archive is lodged with Poole Museum Service under the reference PMO82/DR7.

D.R. Watkins
Borough of Poole Museum Service

RINGSTEAD FARM, NEAR RINGSTEAD, OSMINGTON

The excavation of two evaluation trenches at the proposed site of a bunker silo (around SY 746822) revealed a sequence of colluvial deposits up to 4m deep. While there was no artefactual evidence to date these deposits, several episodes of activity are likely to be represented, possibly dating from the prehistoric period. The site lies close to the recorded discovery of a Romano-British burial, but no evidence for such activity was present in the evaluation trenches.

John Valentin
AC *archaeology*

PARLEY COURT FARM, HURN

Wessex Archaeology was commissioned by Drinkwater Sabey Ltd to carry out an archaeological evaluation on land to the east of Parley Court Farm (SZ 10109930), in advance of a proposed landraising project. The evaluation consisted of 21 machine cut trenches, revealing an undated ditch of two gullies, and four peat-filled former watercourses. All these features were recorded in the northern half of the site; the ditch appears to relate to a former drain noted on OS maps as recently as 1976. No finds were recovered during the evaluation, but a column of peat samples were taken from one of the former watercourses, indicating the peat to be a relatively modern formation.

A.P. Fitzpatrick
Wessex Archaeology

MANTON ROAD, HAMWORTHY, POOLE

An assessment of a housing development of approximately 0.25 hectares (centred on SY 99429125) was carried out in November 1993. Three trenches, representing 4% of the site, were excavated. All the features encountered appeared to be 19th/20th century in origin.

The work was commissioned by the developer, Burt and Vick Ltd, and the archive is lodged with Poole Museum Service under the reference PMO92/DR10.

D.R. Watkins
Borough of Poole Museum Service

TATNAM FARM MIDDLE SCHOOL, POOLE

An archaeological evaluation was carried out to determine the nature and survival of potential archaeological deposits at Tatnam Farm, Poole (centred on SZ 014921). The investigation demonstrated that much of the area had formerly been marsh and infilled in the last twenty years to create the present land surface. The former marsh is represented by deposits of peat which thicken towards the west of the development area. No archaeological artefacts or features were located.

Peter W. Cox
AC *Archaeology*

SHAFTESBURY ABBEY

An evaluation, by means of six hand-excavated test pits, of the site of the proposed new museum building (ST 86152287), revealed considerable post-dissolution disturbance. Traces of what may be interpreted as the robbed wall of the east and west ends of the cloisters were recorded together with a number of burials within the eastern end of the cloister garth.

Julian Richards
AC *archaeology*

ARCHAEOLOGICAL EVALUATION TRENCHES, SHAPWICK VILLAGE

This report describes the excavation of two trenches in advance of the construction of a flood protection wall at Shapwick. The work was funded by the developers the National Rivers Authority. The aim of the work was to gather information on the survival of archaeological deposits along the line of the proposed wall.

In April 1993 two evaluation trenches measuring 2.5m long and 1.2m wide were excavated in Shapwick village. Trench (A) was in the east corner of Bartholomew Church car park (ST 93750165) and Trench (B) was beside the church yard boundary fence within the old orchard enclosure (ST 93700170). Both trenches were excavated to 1.1m by hand and both produced archaeological deposits at the deepest levels. The finds and archive are stored at Kingston Lacy.

Trench A
A dark brown loamy topsoil had developed above the gravel surface laid for the car park, which sealed two further layers containing 20th century pottery, one cut by an electric cable trench which ran along the north-east edge of the trench. Below this, another gravel surface (5) had also been disturbed by the cable trench. Material within this gravel and the dark brown loamy clay, which it covered, dated to the 18th and 19th centuries and included numerous fragments of Verwood pottery and blue and white glazed pottery with occasional fragments of napped flint. Beneath this was a dark brown loam with numerous flecks of chalk, which produced predominantly earlier (17th century) Verwood pottery and two fragments of medieval cooking pot. An underlying layer (10) contained tobacco pipe stems which are not found in deposits earlier than the later 16th century.

Layer 11 (sealed by 10) was a distinctive deposit: a very dark brown gritty loamy clay containing very numerous chalk flecks and pea-grit gravel. Fragments of early green glazed pottery of Verwood type were mixed with fragments of coarse medieval cooking pot and pieces of Purbeck Limestone tile and heathstone. Fragments of brick in this layer with the pottery indicate a 16th century date. Below 11, layer 12 was a very dark grey loamy clay with numerous nodules of flint and heathstone lumps with occasional Purbeck Limestone fragments. There were several fragments of knapped flint and the pottery was of late medieval date mainly sandy wares with a reduced black core and a red oxidised outer surface. Only one rim fragment was found and this was of a 12th century type of bowl identified at Corfe Castle (RCHM 1960, 44). A similar layer below 12 (layer 13) contained mainly small body sherds, of a coarser type than layer 12. One small piece of cooking pot rim had been decorated around the rim

top with finger impressions. Layer 12 was probably deposited in the 14th-15th century while layer 13 probably dates to the 13th-14 century.

A water table level and sealed by 13, layer 14 was only seen in plan. It was a very dark grey loamy clay and was distinctive in having numerous large pieces of animal bone (probably ox) mixed with lumps of heathstone, Purbeck Limestone and flint nodules. No datable finds were recovered.

Trench B

The topsoil (15) was a dark brown, humic loam with numerous roots, which sealed a pit (18) containing a dark brown loam with gravel and pottery and metal objects of the 20th century. The pit cut a light orange brown loam (16) with very numerous chalk flecks and lumps, and fragments of 19th century pottery. This lay above a light orange brown loamy clay (19) the filling of pit 20, which contained occasional slate fragments and brick fragments with numerous chalk lumps and the articulated skeleton of a small dog. The pottery from this layer was blue and white ware of 18th century type.

The pits 20 and 18 had cut deeply into the underlying stratigraphy. A fragmentary layer of dark brown loamy clay (21) with fragments of brick and clay tile and Purbeck Limestone produced three fragments of pottery, including two medieval cooking pot fragments. The third fragment was part of a base with a mottled green glaze on the underside. It was sandy grey ware with an oxidised exterior. The deposit is possibly 16th-17th century date.

Below 21 was a deposit of dark brown loamy clay with numerous large pieces of charcoal within it but no other finds (22). This lay above a thin (20mm) layer of dark red brown fine loamy clay (23), again without inclusions, which in turn overlay a dense compacted surface (24) of gravel stones, which was only seen in plan.

The trenches demonstrate the depth of stratigraphy surviving within this village which is mentioned in Domesday Book. AC *archaeology* carried out further archaeological work during the construction phase of the flood prevention scheme.

RCHM, 1960, 'Excavations in the West Bailey of Corfe Castle', *Medieval Archaeology* IV.

Martin Papworth
National Trust

FOSTER'S SCHOOL, SHERBORNE

An archaeological evaluation was carried out to determine the nature and survival of potential archaeological deposits at Foster's School, Hound Street, Sherborne (ST 64011675). A number of features of medieval date were recorded: this included evidence for structures on the street frontage and at the rear of the site, also several pits and a possible quarry. Medieval pottery recovered from these contexts is not sufficiently diagnostic to define the activities on the site more closely within the range of late 12th century to the 14th century.

Peter W. Cox
AC *archaeology*

CHURCHILL CLOSE, STURMINSTER MARSHALL

An archaeological evaluation of land adjacent to the village hall, Churchill Close, Sturminster Marshall (SY 948996) was carried out in June 1993. A natural sequence of deposits was noted above gravel and no features or finds of archaeological interest were discovered.

Peter W. Cox
AC *archeology*

SUTTON POYNTZ WATER TREATMENT WORKS

An archaeological evaluation was carried out in July 1993 of an area just north of the existing Water Treatment Works at Sutton Poynz (SY 70558399) on behalf of Wessex Water plc. Trenches representing approximately a 3% sample exposed a series of gullies, ditches, and post-holes. This trenching exposed evidence of a potentially well preserved mid to late Iron Age settlement with some evidence of occupation during the Neolithic, Late Bronze Age and early Roman periods. It was considered, therefore, that the site contained areas of high archaeological sensitivity. Major excavation of the site is currently underway was undertaken October 1993-February 1994 (see Excavations Section).

Kit Watson
Wessex Archaeology

HIGH STREET, TOLLER PORCORUM

An evaluation in earthworks in a field on the eastern side of Toller Porcorum High Street was undertaken by students of Bournemouth University in June 1993 as part of the Woolcombe Project undertaken by Alan Hunt and more specifically, by John Gale in Toller Porcorum. Three test trenches were excavated by hand, positioned on three of the platforms recognised from an earthwork survey by Bournemouth University students. Two of the trenches produced coarse wares that were dated to the 18th and 19th centuries by associated finewares. Some residual sherds of late medieval sandy wares were also recovered. These trenches also produced building materials. One of the trenches appeared to reveal a wall amongst demolition material. The third trench was devoid of building material or the type of pottery seen in the other trenches. Three pits and a small gully were excavated. The pits contained sherds with a gritty fabric dating to 13th/14th centuries. It is hoped that further work may be carried out on this site in future seasons by students from Bournemouth University.

The archive is held at Bournemouth University.

R.Edwards
Bournemouth University

WEST STAFFORD BOREHOLE

A two-stage field evaluation was carried out at the site of a proposed borehole close to the River Frome at West Stafford (SY 719891). Six trenches were excavated in total, of which five were aligned in order to sample the gently-sloping topography of the river valley side. The initial evaluation (two trenches) revealed isolated Bronze Age linear features, interpreted as field boundaries. The second stage of evaluation provided evidence of an area of Neolithic activity. A number of shallow pits were located which, on the basis of the range of essentially domestic artefacts recovered from the limited excavation of features, can be taken to represent settlement.

Artefacts recovered include pottery, quern fragments and worked stone, both flint and chert and including a number of well made scrapers. It can be suggested, on the basis of the location of the features and of observed changes in localised topography and soils, that the area of settlement was deliberately located on the margin of the river flood plain.

John Valentin and Julian Richards
AC *archaeology*

CHICKERELL, WEYMOUTH

An archaeological evaluation was carried out on the site of a proposed primary school, Chickerell, Weymouth (SY 645805). It comprised the excavation of five trenches covering an area of 333m^2. The site lies close to a known Romano-British settlement and burials, with the Medieval settlement of Putton also nearby. No evidence for related, or other archaeological activity was present in the evaluation trenches.

Jacqueline Dodd
AC *archaeology*

WIMBORNE POST OFFICE, EAST STREET, WIMBORNE MINSTER

Spetisbury Construction commissioned an archaeological watching-brief from the Wessex Archaeology during the groundwork phase of construction of a new sorting office and associated facilities for the Post Office, East Street, Wimborne Minster (SZ01159981). The construction work involved the machine excavation of foundation and service trenches in a subrectangular plot of 0.05ha. The depth of modern foundations and associated debris uncovered by these trenches suggested that little, if any, archaeological deposits would have survived the construction of existing buildings on and adjacent to the site area. The preservation of two small sections of dark soils above natural gravel may indicate that no structural levels prior to the 19th century have ever existed within the site area.

Roland J.C. Smith
Wessex Archaeology

GATEMORE ROAD, WINFRITH NEWBURGH

The archaeological evaluation of two areas for a proposed garage development (SY 804860) was conducted by means of recording five trenches excavated under archaeological supervision. One area had been previously landscaped to a depth sufficient to remove any potential deposits. The second area contained no evidence for archaeological features or finds.

John Valentin
AC *archaeology*

Other evaluations

Evaluation and watching briefs were carried out by Wessex Archaeology at Prospect Farm, Swanage (SZ 02057975), Eweleaze Dairy, Martinstown (SY 64758755), and Folly Barn Durweston (SY 845085). Little or no archaeological information was recovered.

Julie Gardiner
Wessex Archaeology

EXCAVATIONS

EXCAVATIONS AT CORFE CASTLE 1993

During 1993 the pathway leading from the South-West Gatehouse to the Outer Gatehouse was excavated to the 1640s level and a new pitched Purbeck Limestone path was laid.

To enable this work to take place on the bridge, which lies immediately south of the South-West gatehouse, a scaffold walkway was constructed on its south-west side to take visitors around the work site. The gap between the bridge and the south-west tower of the gatehouse measured 1.2m wide and was created in 1646 when the tower was undermined as part of the slighting of the castle. This tower has slipped over 2m downhill in relation to the north-east tower. A modern retaining wall which had been constructed between the tower and the bridge, was taken down and the rubble and soil behind it (to the north) was removed. The infilling included three carved blocks which once formed the upper part of the portcullis groove. The rubble was excavated to the stone threshold of the door into the south-west tower. Rebates for hinges and a lock were set into the jambs of this doorway. The doorway on excavation was 1.95m high.

The gateway passage, between the towers, was excavated to the Civil War level. A deposit of occupation debris survived within the area north of the gate jambs above the limestone gravel pathway. On the south side of the gate jambs was a flagstone floor with a pair of wheel ruts worn into the floor surface. The deposits above this were modern, indicating that the floor had been exposed after the demolition of the castle. The flagstones showed varying degrees of wear, indicating the long use and repair of the Purbeck Limestone surface. The flagstones abutted a weathered Purbeck Marble threshold which continued below the gate jamb and was therefore contemporary with the construction of the South-West Gatehouse *c.* 1250 (RCHM 1970, 67).

Below the 1970s tarmac path and the Ministry of Works repairs of the 1960s, the bridge surface was found to be a limestone gravel surface. Remains of a stone parapet survived on the north-east side of the bridge, and the two vaulted bridge arches were visible beneath the modern path make-up.

The south-west elevation of the bridge was cleaned and drawn. This work revealed several building phases. The bridge is thought to be post-medieval (RCHM 1970, 67). The north-west arch springs from an apron of medieval ashlar which is part of the gatehouse, and the fractured junction of the bridge with the gatehouse on this side had been refaced with stone after the demolition. At the south-east end of the bridge it had been robbed of its facing stone. This robbing had uncovered the core of the bridge abuttment which was a fine limestone gravel in clay. At the extreme south-east end, a different wall face build was offset and angled away from the rest of the bridge face. Stones surviving on the ditch slope beside the Fourth Tower indicate that this was part of a stone revetment wall linking this end of the bridge with the curtain wall in the post-medieval period.

Removal of the tarmac path between this bridge and the Outer Gatehouse revealed a similar packed limestone gravel path as has been found elsewhere at the 1640s level. In most instances finds of the 18th-20th centuries were found in the soil immediately above this gravel path. A 5m length of path was excavated parallel with the Third Tower and this revealed 17th century finds impressed into the gravel surface and late medieval material immediately below it including a silver inlaid iron tool shaft and a gold plated pendant.

A raised area of larger limestone lumps mixed with medieval pottery, seemed to be part of a building platform made in the 18th century from material quarried from underlying medieval deposits. It was found where the pathway was parallel with the Second Tower. This position corresponds with that of a small thatched circular building shown on a print dated 175=65 (RCHM 1970, jacket).

In November the guard chambers and gateway of the Outer Gatehouse which has been dated to 1280 (RCHM 1970, 64) were uncovered. Part of the west guard chamber had been uncovered in 1986 (Thackray 1987, 136). The west guard chamber had been undermined and demolished using gunpowder in 1646. It had fractured along the line of the west window and east door. The bottom splay and the threshold of these were the only parts of the chamber to remain in situ. The force of the explosion had thrown the north wall into its sappers' trench. The interior of this part of the guard chamber had white plaster surviving on areas of the wall and other patches survived on blocks of rubble infilling the chamber. The floor of the guard chamber was an olive green clay but some flagstones remained above this. Extensive robbing of the demolished parts of the guard chamber was evident and the robbing trenches against the east and south walls contained tobacco pipe bowls characteristic of the late 17th - early 18th centuries.

The east guard chamber foundations remained *in situ* apart from the drum tower and south wall which had fractured along the line of the west door and east fireplace and tilted south. The building was divided into two by a cross wall and each room was entered through a door in the west wall. The north room was unlike the south, the rubble core floor was at a higher level and the internal wall faces had been robbed out. Ralph Treswell's 1586 plan of the building shows this room with a rectangular feature in the south-west corner; its function is unknown. Unlike the west chamber, no collapsed upper portions of the structure survived, neither were there large quantities of stone debris and it must be assumed that most of this part of the gatehouse was broken up and taken out of the castle. This probably took place soon after 1646 as the east guard chamber was reused in the later 17th century. The northern of the two doorways was blocked and the fireplace fracture was infilled with reused ashlar. Remnants of a coal fire were found on the fireplace hearth. A line of rafter mortices had been cut into the surviving west wall of the guard chamber. These are post-demolition as they do not follow the tilt-line of the drum tower. The flagstone floor here is also level. There was probably a timber building erected on the guard chamber footings and a post-hole found in the south-east corner of the chamber may be associated with this.

The east guard chamber was infilled with soil and small lumps of limestone in the late 17th - early 18th century and a new flagstone floor was laid under the surviving barrel vaulted roof of the south section of the guard chamber. This floor measured approximately 2.6m square and above it was a layer of collapsed plaster with reed impressions. Pottery, tobacco pipe fragments and a silver spoon, in the deposit above this, indicated that the floor went out of use in the late 18th - early 19th century. Above this was a clay and gravel floor where a ticket office was sited from the late 19th century – 1970s.

In the passage between the guard chambers was a rubble deposit which included a 2.5m long block of masonry with an ashlar face on its north side. This may have fallen from above being part of the rear arch above the passage at the north end of the gatehouse. Other fragments of masonry included several pieces of roll moulding and a block of limestone with a fragment of plaster painted with a red stripe across on a white background. The rubble layer sealed an early 17th century deposit which among many other items included seven cannon balls. If their weights are compared with ammunition recorded in contemporary lists of ordinance, the following cannon are likely to have been present at the end of the second siege; a demi-cannon (32lb), a culverin (19lb), a saker (5lb) and a fawcon (2lb).

The Civil War occupation debris covered a limestone gravel path indented with a pair of wheel ruts. The east rut had been covered with a line of flagstones. They were of various sizes and some of them were face down indicating reuse. Along the west face of the east guard chamber was a pitched stone drainage gully.

The east guard chamber west wall face had a semicircular indented rust mark at its north end. The diameter of this (0.22m) matches that of the portcullis groove to the south. This may be all that remains of the second portcullis in the Outer Gatehouse. Nothing survives of this in the east wall of the west guard chamber as this wall face has been robbed out. It is not uncommon for castle gatehouses to have more than one portcullis, the South-West Gatehouse has two portcullis grooves and the Outer Gatehouse at Chepstow Castle is another 13th century example.

The excavations were carried out with the help of local archaeologists and the National Trust Acorn volunteers, supervised by Nancy Grace and with grant aid from English Heritage.

David Thackray & Martin Papworth
The National Trust

RCHM, 1970, *Dorset, Volume 2, South-east.*
Thackray, D. & Papworth M. 'Corfe Castle Outer Gatehouse Excavations 1986, Interim Report', *Dorset Proceedings 109*

DORCHESTER FIRST SCHOOL

Interim Report on Archaeological Excavations on the Site of the Maiden Castle Road First School, Dorchester, Dorset.

The site of the school lies at the eastern end of a spread of late Iron Age and Romano-British occupation known as the Maiden Castle Farm settlement (SY 679895). Aerial photographs show traces of two enclosures within the area of proposed development and the nature of these was assessed in 1992 using a grid of eight trenches across the area. This work (Graham and Richards 1992) demonstrated the existence of a well-preserved late Iron Age enclosure, containing the remains of round-houses, pits and other features, in the north-east part of the development area (Enclosure 1). A second, less well-preserved enclosure lay to the south-west (Enclosure 2). Because of the nature of the proposed development, further archaeological work was concentrated in the northern part of the development area, directed specifically at the excavation of those elements of Enclosure 1 which were to be destroyed by terracing for a playing field.

Topsoil stripping revealed the majority of Enclosure 1, with the exception of a narrow strip on the eastern side which lay beneath an extant hedge. The enclosure ditch, which sample excavation showed to be over 1.5m deep, encloses a subrectangular area of approximately 0.2 of an acre with a single entrance on the southern side. The former position of the interior bank was apparent in the absence of features in a clear zone parallel to the inner edge of the ditch and in a zone of slightly raised 'protected' chalk. Roughly parallel to the southern side of the enclosure were four additional but undated ditches, one of which terminated opposite the entrance to the enclosure.

The enclosure appeared to be overlain by the parallel ditches of a trackway, running in a south-west/north-easterly direction and reflecting, in a wider context, the alignment of a later settlement known and excavated to the south-west (Woodward and Smith 1987, fig. 5). Immediately beyond the south-west corner of the enclosure lay a series of pits and other features broadly contemporaneous with the investigated enclosure.

The interior of the enclosure showed a high degree of internal organisation and exceptional preservation of both downcutting features and horizontal deposits. The potential of the site as an educational resource was rapidly appreciated and the site developers (Dorset County Council) and the landowners (Duchy of Cornwall) agreed to a radical modification of the overall site layout to preserve the remains of the enclosure. The emphasis of the fieldwork was consequently shifted to detailed cleaning and recording and to the limited sampling of features in order to provide information related to chronology and economy.

Within the enclosure, dwellings in the form of three roundhouses, were confined to the wider, western side of the enclosure, and faced onto an open area, partly metalled with flint gravel and interpreted as a courtyard, that lay immediately inside the gateway in its southern side. The roundhouses are all exceptionally well-preserved, as is the surface of the courtyard, due to their being terraced into the slight hillslope. The north-eastern part of the enclosure appears to have been an area of open space, with evidence of storage pits ranged along the back of the enclosing bank.

The enclosure appeared originally to have had an entranceway from the west as well as the south. This suggests an original internal layout of two roundhouses located in the north-west and south-west corners of the compound. A further roundhouse, rebuilt at least once, post-dates the blocking of the western entrance and a final phase with this single roundhouse central to the west side of the enclosure may be suggested.

Following a period of temporary protection the entire enclosure has been re-covered with a thin layer of topsoil. It is intended that the site will be preserved intact within an amenity area which is currently being redesigned to reflect the buried archaeological remains.

Peter Bellamy, Alan Graham and Julian Richards
AC *archaeology*

Graham, A. and Richards, J., 1992, 'Archaeological Evaluation of the Maiden Castle Road First School Site,' Unpublished report, AC *archaeology*
Woodward, P.J. and Smith, R.J.C., 1987, 'Survey and Excavation Along the Route of the Southern Dorchester By-pass, 1986-1987 - An Interim Note', *Dorset Proceedings*, 109, 79-89.

FIELDWORK AND EXCAVATION ON THE DORCHESTER ROMAN AQUEDUCT, SUMMER 1993

Study of the Dorchester Roman Aqueduct continued in 1993. Work in 1992 had failed to find any trace of the aqueduct from its supposed source at Notton on the river Frome, to Penn Wood between Muckleford and Bradford Peverell. (Putnam 1992).

The aim of the fieldwork and excavation carried out by students of Bournemouth University in June and July 1993 was to confirm the existence of the aqueduct closer to Dorchester, and if possible find the true source. This aim was achieved, but there are still major problems

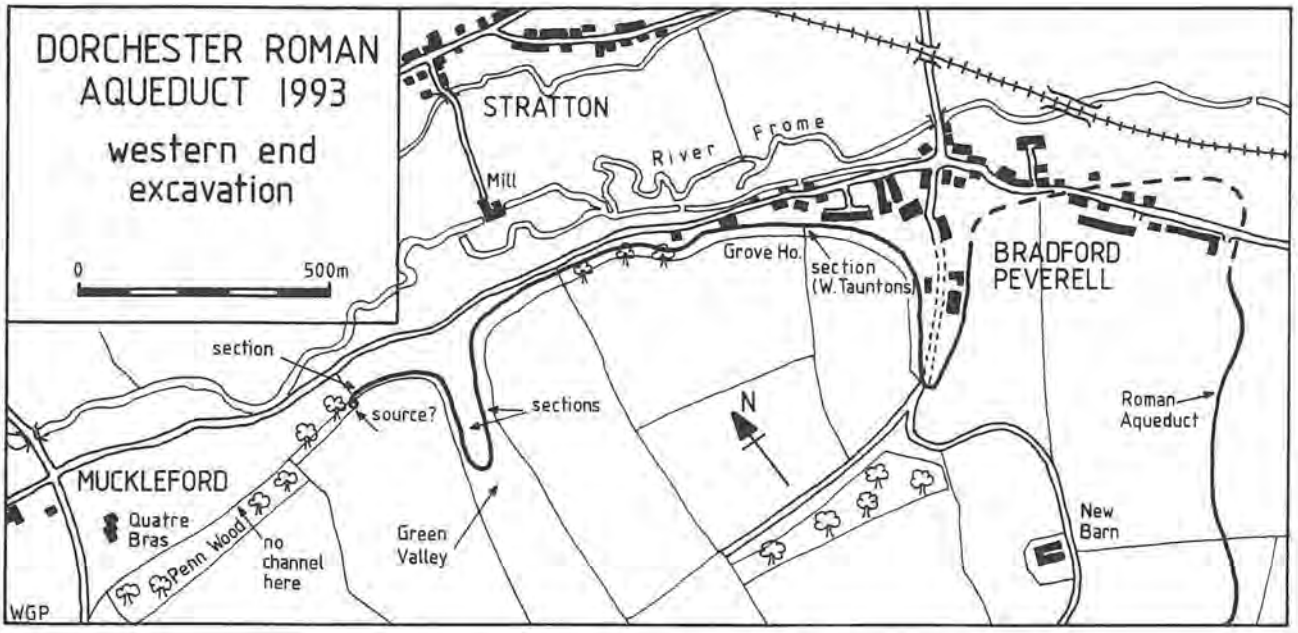

Figure 2. Dorchester Roman Aqueduct.

remaining.

The 1993 excavation began in Penn Wood (SY 6450 9329) where the trench of 1992 was extended 3m southwards up the slope, to make quite sure the aqueduct channel did not pass this point at a higher level than previously supposed. The result confirmed the conclusion of 1992 - that no channel passes through the wood.

Work was then moved closer to Bradford Peverell. A section was cut across the terrace which runs at the top of the gardens of the houses south of the road from Bradford Peverell to Muckleford. This has long been taken as the aqueduct, and was sectioned in the garden of West Tauntons (SY 6560 9312). It was with some surprise that the excavators found that here at least the tradition was true. The channel was well preserved, measuring nearly 3m across and over 1.5m deep. The lower layers were filled with a fine silt, and the upper layers with ploughed soil and flints which had fallen from the cultivated field immediately above.

This terrace containing the channel is continuously traceable (see fig. 2) through the beechwood opposite Stratton Mill, and looping round the re-entrant now called Green Valley, though formerly known to RCHM fieldworkers as Eweleaze (RHCM 1970).

Work then moved to Green Valley to establish whether the channel continues to be present in the terrace which, in its visible form, is essentially a cultivation terrace.

A trench was cut on both sides of the valley (SY 6495 9326 and 6486 9328), and this proved that the aqueduct continues as predicted. Here it was possible to carry the excavated section down to the bottom of the channel, revealing a 5cm thick layer of clay forming a 90cm wide band down the centre of the channel bottom. It is difficult to see any explanation for this other than water proofing, but why it is so restricted in coverage is difficult to understand. Its edge is sharply defined, and it does not spread up the sides of the channel. There was no detectable sign of re-cutting.

At this stage the situation was puzzling. The buried channel leaves Green Valley heading westwards, and this was confirmed by a section cut close to the point where the terrace enters Penn Wood (SY 647 9332). The implication of this section and the absence of the channel 240m further into the wood was that the source of the aqueduct must lie within that 240m of woodland.

An intensive survey of the wood was made, involving the clearance of very thick vegetation which had hindered the observations of earlier workers at this point.

A small quarry or hollow exists almost immediately into the wood (Sy 647 9332), surrounded by a ring of mature ash trees. It is not easily noticeable as large quantities of farm rubbish have been dumped into it in the earlier years of this century, almost filling it with material in the shape of an inverted cone.

Immediately in front of this hollow the terrace changes character, ceasing to be the 3-4m wide plough terrace, and becoming a small ditch and hedge bank.

The almost inescapable conclusion is that the aqueduct starts here. Certainly the channel goes no further. Either the water source is here, or construction stopped here for whatever reason.

There are a number of Roman aqueducts on the continent which have their source in a tunnel dug into the water table (Hodges 1992). The possibility of a tunnel here must not be ruled out, though Penn Wood seems an unexpected place for it. It seems likely that it could have been done nearer Dorchester. Perhaps the intention was to go further up the Frome valley but the digging of the channel here revealed that the water table was easily accessible.

If Penn Wood does not prove to be the water source, then the question must be asked whether the aqueduct was ever finished. Durnovaria had a large bath-house, there is at least one water main, and several substantial sewers. Large quantities of silt are found in the channel at the Dorchester end, and there are signs of extensive repairs in Fordington bottom. Nevertheless, the silting could be hillside run off, the water main might never have been used, and the changes in the dimensions of the banks in Fordington Bottom may be unfinished original construction.

It must remain possible pending further work that money or enthusiasm ran out at Penn Wood before the channel reached the obvious water source in the stream in the Steppes Farm re-entrant, further up the Frome valley.

It is hoped that work will continue in 1994 to try and establish whether Penn Wood was the true source, and whether the aqueduct was completed as a major working facility for the Roman town.

The University is grateful to the landowners who kindly gave permission for excavation and survey on their land, particularly Mr and Mrs Greenland at West Tauntons, Mr and Mrs Tutte at Lower Skippet, and Mr R Eversden at Home Farm, Bradford Peverell.

Acknowledgement is also made to the Department of National Heritage who allowed excavation on the scheduled parts of the aqueduct in Green Valley.

W G Putnam
Bournemouth University

Putnam, W G 1992 "Fieldwork and Excavation on the Dorchester Roman Aqueduct, Summer 1992" in *Dorset Proceedings*114, p 239-240

RCHM 1970 *Historical Monuments in the County of Dorset* 11, part 3, p 585

Hodges, A T 1992 *Roman Aqueducts and Water Supply*, p. 75.

CHELWOOD, HOOKE

A small archaeological excavation was undertaken in the garden of Chelwood, Higher Street Lane, Hooke prior to landscaping as part of research into the development of the village. Three test pits were dug by hand, two in the area of a house shown on the Tithe Map of 1840 which had been demolished by 1902 and the third outside the boundary of the demolished property. Large quantities of eighteenth and nineteenth century coarse wares with a smaller quantity of fine wares of a similar date were recovered. No walls were uncovered but demolition rubble was encountered in the test pits on the house site. No finds or features of a medieval date were found. The archive is deposited with Bournemouth University.

R. Edwards
Bournemouth University

SUTTON POYNTZ

The presence of a settlement of the late Iron Age and Romano-British date located immediately to the north of the waterworks at Sutton Poyntz (SY 703840) was first recorded during construction of a water main in 1991 (Lancley 1993, site B). An archaeological evaluation and subsequent excavation of an area comprising 1000m2 were commissioned by Wessex Water plc as part of the planning procedure prior to the construction of a new water treatment works. Excavation work commenced in October 1993 for a total of 15 weeks, eventually confirming the late Iron Age/Romano-British date of the settlement and also uncovering portions of several medieval buildings, including one considered to be a chapel.

The earliest material recovered from the site is an assemblage of finely-manufactured flint blades and associated debitage. Much of this material was collected from the surface of the natural Kimmeridge Clay which underlies the later settlement sites. However, one group of flints was found exclusively in a steep-sided gully which predated all other features and a single microburin within this group indicates a Mesolithic date. Some of the other worked flint from the site may be earlier Neolithic in date and two sherds of pottery recovered during the evaluation stage were of that from a collared urn and another from a shouldered jar.

In the south-west corner of the site the excavation revealed up to 0.5m of stratified occupation deposits underlying topsoil. The earliest parts of this sequence consisted of soil layers which contained considerable quantities of pottery of Early and Middle Iron Age date, including fragments of haematite-coated bowls. Overlying and cutting into these soil layers were features of Late Iron Age date including a possible post-built roundhouse with an internal cobbled floor surface. A crouched inhumation of a young child was cut into the fills of the ditch which delineated this potential roundhouse.

Across the central part of the site the soil deposits were shallower, and when removed this revealed a number of features cutting into the underlying clay. These included pits, postholes and a group of four parallel ditches aligned east-west. The material recovered from these features indicates a date range from Late Iron Age to early Roman, ending by the 2nd century AD. A second child inhumation, this time in an extended position, is also likely to be of Roman date. The northern extent of this settlement was indicated by a series of banks aligned along the base of the slope. These were construction of stone and turf, and in places indicated several phases of rebuilding/reinstatement.

The banks were probably necessary in order to protect the settlement from floodwater. To the north of the banks was a build-up of feature-less colluvium containing pottery of Late Iron Age and Roman date, whilst to the south the occupation of this date overlies the southern edge of the banks and contains no colluvial layers at all. Sealed below one of the banks and on a similar alignment was a trackway made up of flint pebbles. This may have been the earliest form of boundary at the north end of the settlement area.

Plate 1. Sutton Poyntz, view from the south across the excavations.

Plate 2. Sutton Poyntz, the probable medieval chapel viewed from the south.

At the south end of the excavation area was a series of substantial stone buildings. This part of the site had not been evaluated due to the number of live services here and the presence of these buildings was totally unexpected. One of the buildings lay wholly within the excavated area and was fully investigated. Measuring 10m x 5m internally, it was divided by a central partition and had a plaster floor. Although the walls had been extensively robbed out, in places they survived to a height of almost 0.5m. Excavation revealed two separate stages of sub-floor drainage, the earliest culverts draining into a central soakaway and then a subsequent series of interconnecting culverts which drained out to the south and away from the building.

Several characteristics suggest that this building may have been a chapel. These include the presence within the building of a considerable quantity of painted wall plaster, the non-domestic nature of the architectural stonework, the east-west alignment of the building, the absence of a fireplace or hearth, the existence of a raised platform positioned centrally at the east end of the building, and the recovery of a potential altar stone made from a slab of Purbeck Marble. A large assemblage of high-class glazed pottery, including many fragments of vessels of Saintonge Ware imported from the Continent as well as Poole pottery, indicate a late 13th - early 14th century day for the construction and use of this building.

To the south-west of this was another building of similar date. Although only the corner of the building lay within the excavation area, at least three phases of construction were identified. No discernible floor surfaces had survived, but the presence of a well-constructed fireplace within the north wall indicates a domestic building. Fragments of other buildings were also investigated but had not survived to the same extent as those described above. It seems likely that the buildings represent a manorial complex, and preliminary documentary research has provided references to the construction of a manorial chapel and mill *c.* 1329. It is known that a water mill existed here until the 1850s when it was demolished to make way for the first water pumping station.

Mick Rawlings and Kit Watson
Wessex Archaeology

Lancley, J., 'Late Iron Age and Romano-British sites located on the Chalbury to Osmington water main', *Dorset Proceedings* 114, 254-258

EXCAVATIONS NEAR TOLPUDDLE BALL, DORSET

An Interim Report

Between September and December 1993 an Iron Age and Roman settlement lying some 500m to the east of Tolpuddle Ball at SY 813947 was excavated. The site lies on the proposed route of the Tolpuddle and Puddletown bypass and had initially been identified from a scatter of Roman pottery collected during fieldwork in 1990. Trial trenching in 1991 revealed that archaeological features survived below the plough-soil and as a result of this, a full excavation was carried out. In total, an area of approximately 147m x 60m was examined by machine cut trenches (Plate 3).

The site lies at an elevation of about 75m and is situated on a chalk ridge extending east from Tolpuddle Ball, between Tolpuddle and Bere Regis. The summit of Tolpuddle Ball is covered with sands and gravels from the Reading Beds, pockets of which occur in solution hollows on the site. Although there is immediately no local water supply, the site overlooks the Bere Stream some 400m to the north-east and the Piddle Valley, just over 1km to the south. The Iron Age hillforts of Weatherby Castle and Woodbury Hill lie 1.5km north-west and 4km east respectively. The Roman Road between Dorchester and Badbury Rings passes about 700m north-west of the site.

Documentary and oral sources suggested that the site had been under pasture from at least the late eighteenth century until 1990, but the presence of many small abraded potsherds in the plough-soil suggested that it had been intensively cultivated at an earlier period. The modern plough-soil was only 0.25cm deep and plough marks scored the underlying chalk over most of the site, clearly truncating features such as burials. As a result of this, although evidence for occupation in the form of pits and ditches survived in quantity, there was little evidence for above ground structures.

The main focus of activity lay towards the western side of the excavated area. A break of slope in the modern field was found to mark the line of a buried lynchet against which the settlement had been set. (fig. 3A). Initial assessment suggests at least four main phases of activity on this part of the site, three dating from the Iron Age and one from the Roman period. The earliest appears to have

Plage 3. Tolpuddle Ball, air photograph of the site under excavation taken from south-east (David A. Higgins).

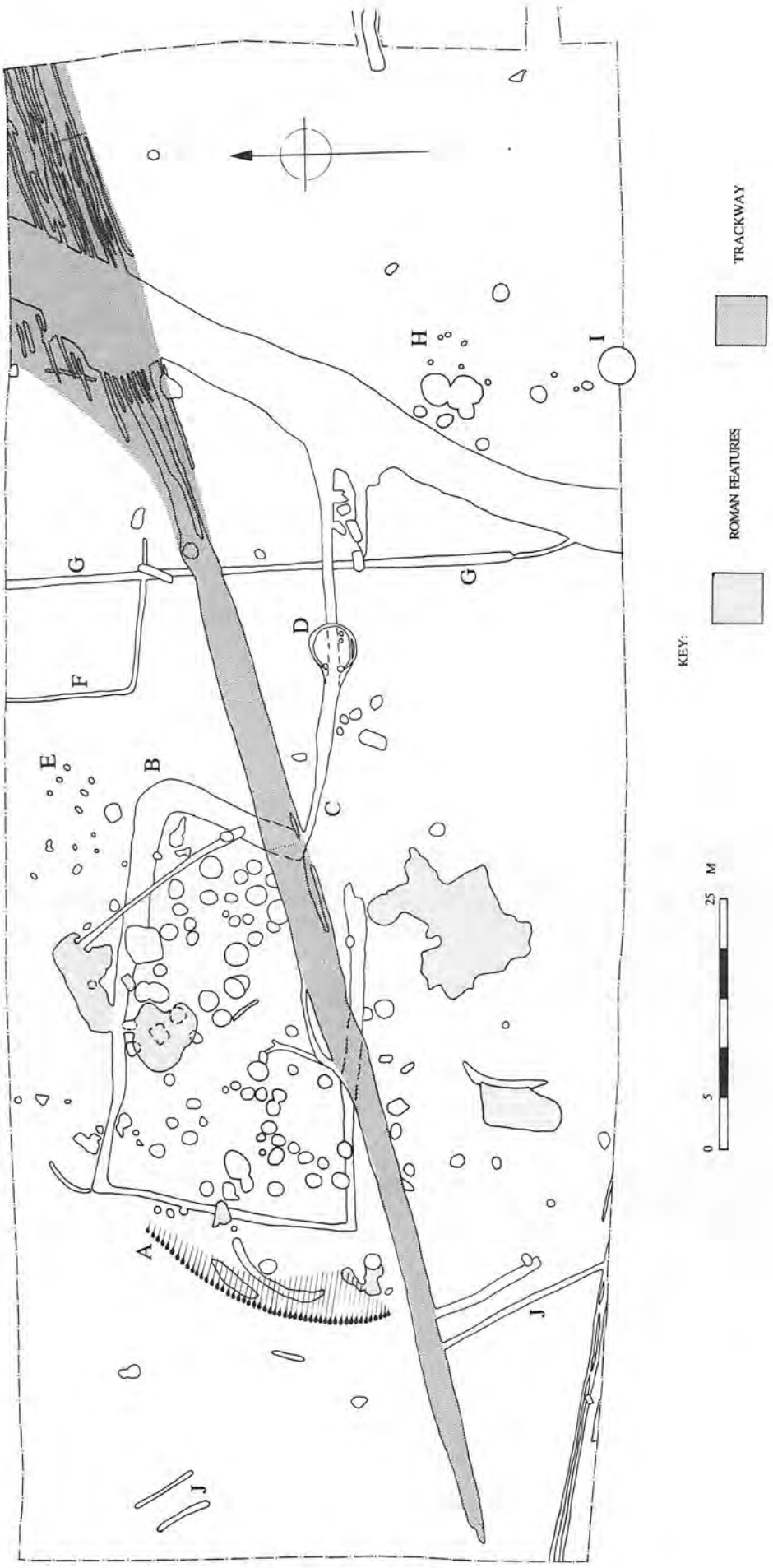

Figure 3. Excavations near Tolpuddle Ball: Plan of principal features.

Plate 4. Tolpuddle Ball, round-house constructed over backfilled enclosure ditch (Jon Gower).

consisted of an unenclosed settlement and is represented by storage pits cut into the chalk. It is not yet known how many of the pits might belong to this first phase; all that is clear is that at least one of them was cut by the later enclosure ditch.

The second phase is marked by the construction of a sub-rectangular ditched enclosure around the settlement (Fig. 3B). This measured about 40m east to west by 25m north to south and had an entrance at its south-eastern corner. The ditch appears to have been re-cut on at least one occasion. A subsidiary ditch extended 40m eastward from the northern side of the entrance where it turned to form one of the flanking ditches for a trackway running north-north-east to south-south-west across the site (C).

In the third phase, both the enclosure ditch and the ditch running east from it were backfilled. Part of the backfill to the east of the enclosure was later replaced with a more chalky fill when a roundhouse was constructed across it (Fig. 3D; Plate 4). This structure was relatively small, with a diameter of about 4m and there was an entrance on the western side, marked by two postholes. Occupation in the area of the former enclosure appears to have continued during this period, the evidence being that at least one storage pit was cut through the backfill of the enclosure ditch.

The final phase of occupation took place in the Roman period and is represented by four separate and quite extensive spreads of domestic debris which survived below the plough-soil (shaded). These areas of debris covered some of the Iron Age pits and filled rectilinear hollows, possibly indicating the positions of buildings. The finds from these deposits included a number of coins which show that the site was occupied until at least the fourth century AD. In addition to these spreads of domestic debris there was also a corn drying kiln and a clay lined water tank with a stone-slab base (Plate 5).

Although the majority of the settlement evidence was concentrated below the lynchet a range of other features were present across the rest of the site. Almost all of these features are likely to date from the Iron Age.

There were a number of postholes just to the north-east of the ditched enclosure, including a six post structure (E). A number of the postholes produced burnt daub and there was a small pit with evidence of repeated burning within it. To the east of the six-post structure was a small rectilinear ditch (F) and then a long straight ditch (G). This extended south almost all the way across the site and

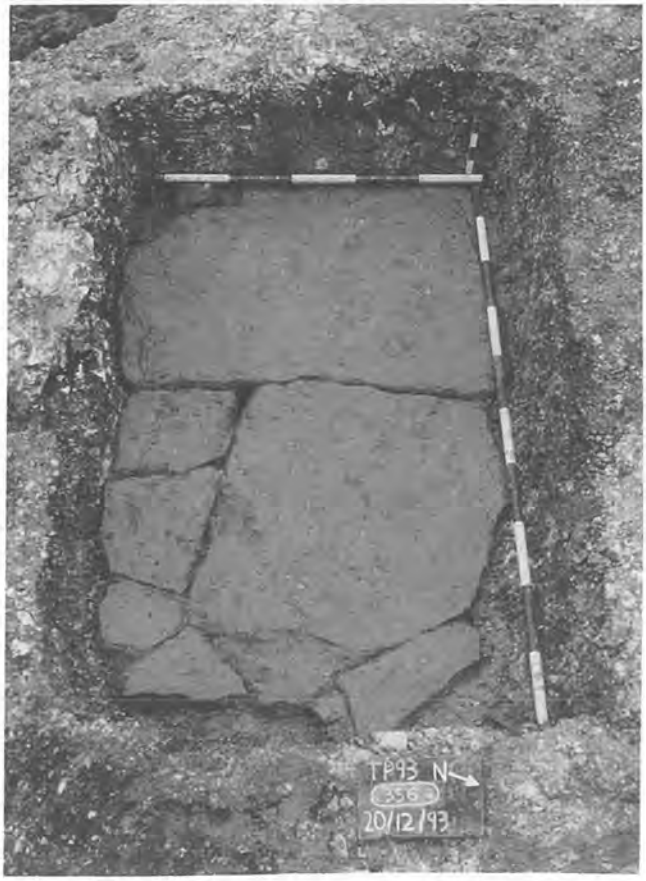

Plate 5. Tolpuddle Ball, stone slab base of Roman clay lined water tank (David A. Higgins).

stopped suddenly. At this point the ditch was butted by a shallower and more curving ditch which continued to the south. The long ditch had been cut by the ditch associated with the enclosure and so must belong to the first phase of settlement or earlier.

Towards the south-east corner of the excavated area was a further cluster of Iron Age pits and postholes which may well represent a second focus on occupation (H). The pits here included one huge one with a diameter of nearly 4m and of a similar depth. Although it was filled almost exclusively with clean chalk, it contained a dog burial lying on a bed of stones in the lower part of its fill (I).

The eastern side of the trench was relatively barren. It included a small pit containing a mass of prehistoric flint working debris and the terminal of another Iron Age ditch. This ditch ran eastward out of the trench and was followed by machine for a distance of 70m before it ran under the site huts.

There were only two possible post-Roman features on the site. At the western end, a very shallow pair of gulleys running from the north-west to the south-east probably represent the remains of a ditched trackway of uncertain date (J). Running diagonally across the whole site was another trackway which is almost certainly post-Roman (shaded). This trackway consisted of a shallow hollow running from the west-south-west to the east-north-east across the hill-side. At its east-north-eastern end it splayed out into a series of parallel wheel ruts occupying a width of at least 12m or 13m. This pattern suggests that it was an unenclosed track running across open fields or downland.

In addition to the settlement remains, the site also produced a number of human burials, five or six of which were within the Iron Age enclosure. These consisted of both adults and infants, generally placed within storage pits. One of the infants was recovered from the base of the enclosure ditch itself. Apart from one of the adults who wore a bronze toe ring, the burials were otherwise unaccompanied. Outside and to the east of the enclosure, there was a cluster of five burials. These were very variable in nature and orientation ranging from shallow scoops which hardly cut the chalk, to deep rectangular pits with evidence of coffins or chambers within them. None of the burials was accompanied. The presence of coffin nails suggests that they belong to the Roman phase of occupation.

The excavation was directed by Dr D A Higgins from the Department of Archaeology, University of Liverpool, acting for the Environmental Advisory Unit Ltd of Liverpool. The work was funded by the Department of Transport through Frank Graham and Partners, the consulting engineers. The site plan was drawn by Judith C Winters. It is intended that the excavation archive and finds will be deposited at the Dorset County Museum.

D A Higgins
University of Liverpool

TOLLER PORCORUM EXCAVATIONS 1993

A final season of excavation was carried out at the site of Church Mead, Toller Porcorum (SY 56159794) during June and July of 1993. The excavation undertaken by the Department of Conservation Sciences at Bournemouth University concludes three years of seasonal investigation into a site which has revealed both settlement and agricultural activity dating from the 12th century.

Excavation in 1992 had exposed the surviving remains of a small single celled structure which appears to have gone out of use by the 16th century. The floor area of the building covered approximately 110 square metres with the longest elevation not exceeding 11m. At its western end the building contained a range or hearth whose base had survived post depositional disturbance reasonably well.

Upon completion of the 1992 excavation the building was still largely covered in its own collapsed rubble of flint, chalk and other miscellaneous stones from gravel deposits. A noticeable feature of the 1992 excavation was the skewed plan-form of the structure which had resulted in the west wall being approximately 20 degrees out of true, which appeared to be in part due to poor foundation on the shifting sub-soils of clay and gravel. The increased weight of the west wall caused by the hearth, coupled with insubstantial footings and the presence of earlier activity (pre 13th century ditch) must have accelerated soil movement causing the now evident twisting of the building.

The 1993 Season

The primary objective of the final season in 1993 was to excavate totally the structure with a view to determine the approximate date of its construction and to attempt to define its function.

After removal of the rubble covering the building which appears to have been largely from the collapsed range/hearth of the western end, the floor plan of the single celled structure was revealed. The flooring would seem to have been of trampled earth, which was almost totally destroyed by post occupational disturbance. With the exception of the hearth no internal features were revealed and there was little cultural material recovered from the interior with the exception of pottery fragments from disturbed layers.

The hearth area had survived better and its structure could be fairly easily interpreted. It had been constructed of alternating bands of clay and small flint nodules and pebbles, in a sandwich of at least four layers. This construction technique was probably continued to a much greater height as the collapsed rubble demonstrates, although the clay has since dispersed into the surrounding soils. The exposed faces of the hearth on the interior of the building had been faced with cut chalk blocks approximately 20cms in height which had survived to a height of two course.

The building appears to have two distinct phases which are marked by slightly different construction methods for each phase and probably different functions. In its earliest phase the building appears to be of light construction whose walls were constructed either on a token foundation of pebble and small stone or perhaps as is more likely on no foundation at all. If the later is correct then the observed wall remains are merely the base of a wall of the same matrix. The structure at this phase does not seem to have had a hearth or fire and is therefore presumably non domestic in function and probably was used as a small store or shed. This was followed by a more substantial structure which utilised in part the earlier building. The new building made use of the south and east walls of the original structure but had new walls constructed on the same lines of the north and west walls. These new walls had footings of undressed chalk and limestone facing blocks to front and rear with an earth and rubble fill. It was during this rebuild that the west range/hearth was inserted. The presence of the range in this second phase suggests that this structure was probably domestic perhaps a small peasants cott.

The only activity directly associated with either building was the disturbed remains of a shallow pit (earlier phase) which contained a large lump of wedged clay. The implication is that the structure may be associated with the production of ceramic materials (Ian Hewitt pers comm).

Post excavation analysis is now underway and it is expected that the final results will be published in 1995. Early results from the ceramic analysis which is currently being undertaken by Ian Hewitt shows a marked predominance of 13 - 14th century sandywares. The range of identifiable vessels includes cookpots, dishes, jugs and containers with bung holes.

John Gale
Bournemouth University

Gale, J. 1991, 'Toller Porcorum,' *Dorset Proceedings* Vol 113
Gale, J. 1992, 'Toller Porcorum,' *Dorset Proceedings* Vol 114, 244

BRONZE AGE FINDS AT WARMWELL QUARRY, WEST KNIGHTON

The latest phase in a three year programme of archaeological assessment and monitoring in advance of gravel extraction at E.C.C's Warmwell Quarry, West Knighton was carried out in June 1993. The current extraction area is located within a field of almost eight hectares west of Knighton Heath Wood centred upon NGR SY 472888 (Figure 4). During previous work in the area, large scraper-dominated flint assemblages, mainly Bronze Age in date, had been collected from ploughsoil but the only archaeological features recorded were the bases of three ploughed-out hearths.

In 1993, a strip of land measuring 250m by 70m was monitored during the mechanical removal of ploughsoil to a depth of 0.30m. Again, a large flint assemblage was collected from the ploughsoil, in which a high incidence of scrapers and scraper pre-forms were identified, and in addition, a number of archaeological features was revealed (Figure 5). The features can be divided into two groups within which the function is often unclear; pits/postholes and hearth/pyres. The first group was mainly concentrated towards the west of the site forming a partial post-circle with associated pits, some of which contained quantities of Middle to Late Bronze Age pottery. Notable in the assemblage were the remains of a cordon-decorated cinerary urn found associated with a deposit of cremated bone in Feature 2, suggestive of a ritual rather than domestic function for the structure.

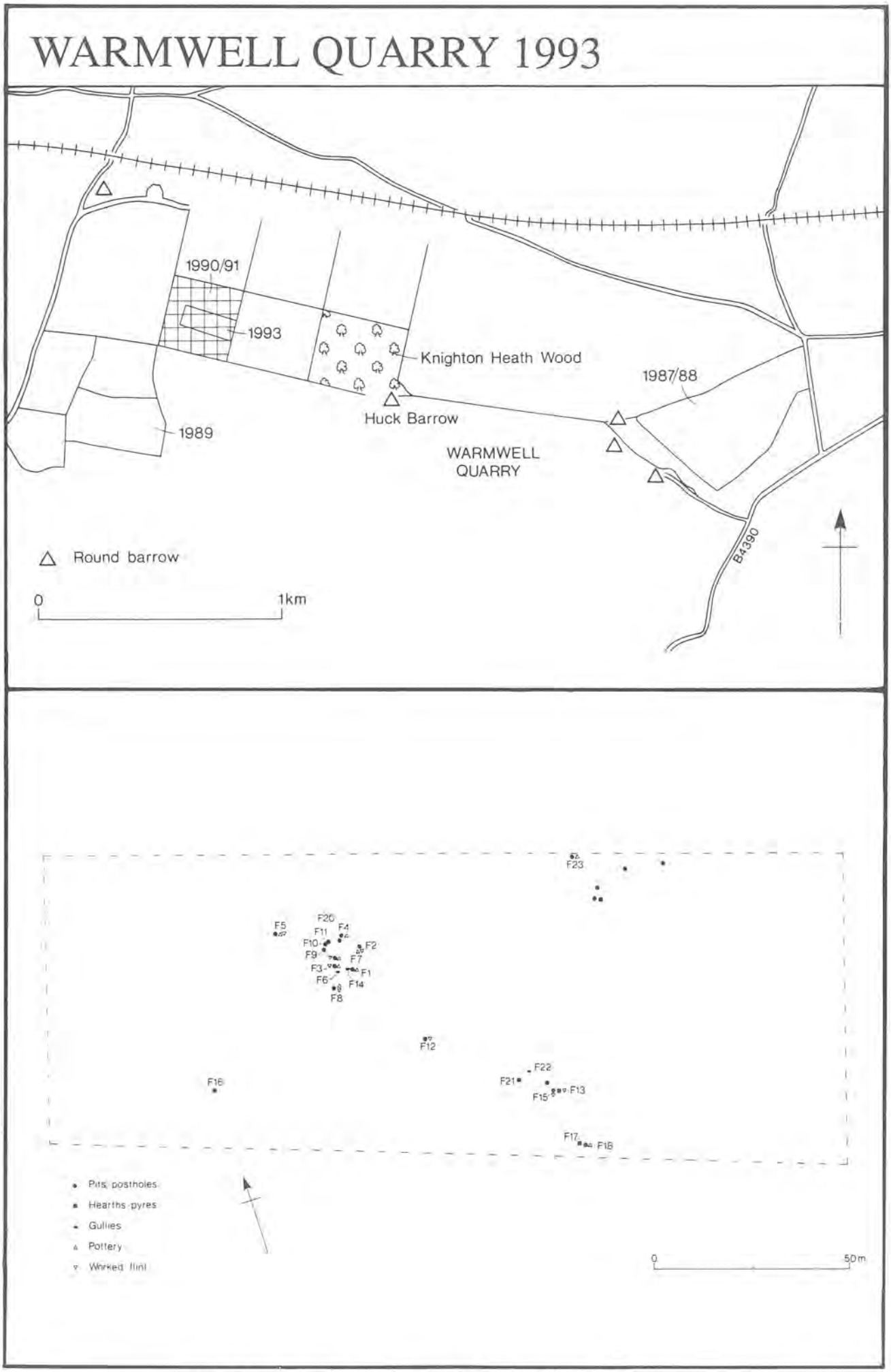

Figure 4. (top) Warmwell Quarry. Figure 5 (bottom). Both by Mark Breedon.

The second feature group - heavily truncated areas of burning - was more widely distributed. Some features were partially composed of fired clay, suggesting a hearth function, and others were more suggestive of open bonfires or cremation pyres.

Bronze Age finds, including base sherds from a large vessel and a small group of flint artefacts, were found associated with some of the hearth/pyres (Features 17 and 15 respectively). The flint finds - four scrapers, a core and several waste flakes, were recovered from a shallow bowl-like feature cut into F17 in which they had been arranged, partly covered by a stone pounder or hammer made of ironstone. This ovoid feature may be the remains of a wooden bowl or other organic container, perhaps representing domestic equipment left at a hearth or, more interestingly, the deliberate deposition of a personal toolkit as part of a funerary ritual.

The function of the post structure, as well as the nature of the areas of burning and the associated lithic and ceramic assemblages will not be known until detailed study of the finds is undertaken. A funerary interpretation seems likely for the *in situ* deposits at Warmwell in view of the high incidence of barrows and cremation cemeteries in the region and notably on the Dorset heathlands. It may be significant that at the contemporary cemetery at Cowleaze on the South Dorset Ridgeway, a similarly high incidence of scrapers has been identified in the lithic assemblage in contrast to that from the domestic site at nearby Rowden (Bellamy 1991).

In view of recent results outlined above, the survival of further archaeological finds and deposits is likely in the remaining portion of the field where, it is hoped, further excavation will be possible prior to its destruction by quarrying. After a full analysis of the site and its finds, it is intended that the results from the programme of excavation will be brought together as a published report.

The programme of work was commissioned by English China Clays Ltd and was carried out by Birmingham University Field Archaeology Unit. A preliminary report of the 1993 fieldwork has been deposited at the Dorset Sites and Monuments Record.

Lynne Bevan
Birmingham University Field Archaeology Unit

Bellamy, P., 1991, 'Excavated flint assemblages from Rowden and Cowleaze' in P.J. Woodward, The South Dorset Ridgway, DNHAS Monograph Series, Number 8, 87-95.

Original artwork by Mark Breedon.

WORTH MATRAVERS 1993

A third season of excavation was undertaken at *Compact Farm* (SY 975778); see Hinton and Peacock 1991 and 1992 for previous work), by the Department of Archaeology, University of Southampton, again with the kind permission of Mr David Strange and with funding from English Heritage. Supervisory services were again provided by Wessex Archaeology; we are grateful to Michael Rawlings, Alan Graham, Dominic Barker and Christopher Ellis for their cheerfulness in sometimes dire weather. English Heritage funding also enabled another schools programme to be organized by Philippe Planel: nearly 2000 school-children visited the site in the two years of this part of the project.

What was thought in 1992 to be a polygonal structure (see plan, Hinton and Peacock 1992, 246) proved to be a round-house; its wall foundations had largely been removed, but its floor was remarkably intact, with a hearth and internal divisions. It is a little earlier in date than the circular building discovered in 1992. A crouched or flexed skeleton had been buried inside it, presumably after it had gone out of use but while its site was visible or remembered, and another had been inserted at the edge of its flagged entrance.

In the area west of the Roman barn, vestiges of other structures were found, with a complex stratigraphy extending back to at least the earlier part of the late Iron Age. Pit 666 proved to be a stone-lined storage pit, not a well as anticipated, and is provisionally dated to the late 1st century AD.

Elsewhere in Worth Matravers, survey of the lynchets on *East and West Man* (centre SY 975765) continued with the help of the Royal Commission on Historical Monuments (England), and survey of the 'marble' quarry at *Haycraft Farm* (5Y 985 796) also continued.

David A Hinton and D.P.S. Peacock
Department of Archaeology, University of Southampton

Hinton, D.A., and Peacock, D.P.S., 1991, 'Worth Matravers', *Dorset Proceedings* 113, 187-90.

Hinton, D.A., and Peacock, D.P.S., 1992, 'Worth Matravers 1992', *Dorset Proceedings* 114, 245-6.

WATCHING BRIEFS

SWANNERY CAR PARK, ABBOTSBURY

Observations were undertaken during improvement work to the Swannery car park, Abbotsbury. No features or finds of archaeological interest were noted.

Julian Cotton
AC *archaeology*

BESTWALL QUARRY GRAVELS PROJECT

Interim note

Approximately 18,700 square metres of topsoil was removed during the second phase of gravel extraction centred on SY 39280871. A further 20 charcoal-filled features were examined, one of which produced a neolithic blade flake. There were no other datable subsoil features. A collection of surface finds was made, these included prehistoric flints, one sherd of Bronze Age pottery, and small quantities of Iron Age, Roman and medieval ceramics. There were large quantities of post-medieval wares mostly dating to the 17th century. The assemblage comprised local East Dorset types, Donyatt, and continental stonewares. Large number of clay pipes were found including 106 bowls or part-bowls, the majority of these were dated 1640-1660.

Two metal detector searches were conducted before and after topsoil removal. A total of 588 metal finds were retrieved, these included large quantities of musket balls, buckles, buttons, coins, tokens and horse furniture. A small fragment of a copper alloy Roman brooch and a late Saxon 'sub-Ringerike' mount were found during the sub-soil search.

Fieldwork was undertaken by members of the Wareham and District Archaeology and Local History Society. Equipment was provided by English China Clay (Quarries Ltd).

Lilian Ladle
Wareham and District Archaeology and Local History Society

BRYANTSON SCHOOL, BLANDFORD

The groundworks for the construction of a new Boys House at Bryanston School, Blandford (ST 874074) were monitored during June and July 1993. Ground disturbance covered a total area of 3000m2. No features or deposits of archaeological interest were identified, but pottery of a medieval date and worked flint was recovered during topsoil stripping.

Julian Cotton
AC *archaeology*

SOUTH WALKS HOUSING PROJECT, SOUTH STREET, BRIDPORT

The observation of piling operations on this site SY 465924, behind the Chantry on South Street, was inconclusive. Alluvial clay was encountered across the whole site but no archaeological layers could be recognised. The work was funded by Fowler Plant Ltd.

Alan Graham

DURLEY CHINE, BOURNEMOUTH

A substantial worked timber was washed up at Durley Chine after stormy weather in December 1993. The curved timber was approximately 2.3m long and 0.13m square in section. It was pierced, both vertically and horizontally, for treenails, several of which remained *in situ*. It is probably a framing element from a sea-going

vessel of carvel construction and as such is 16th century or later (pers. comm. Gillian Hutchinson, National Maritime Museum).

The member of the public who reported the find also reported the past occurrence of smaller pieces of timber. This may indicate a wreck off Durley Chine. Further information on this timber is stored with Poole Museum Service under the reference PMO 93.

D.R. Watkins
Borough of Poole Museum Service

HALVES COTTAGES, CORFE CASTLE

During April 1993, a watching brief was undertaken at 6 Halves Cottage, Corfe Castle (around SY 964813). The purpose was to monitor the excavation of foundation trenches for the construction of a new single dwelling. Two phases of archaeological activity were recorded:

i) A north-south aligned, U-shaped ditch or gully, with a depth of 0.55m, and width of 0.70m. Black-burnished ware pottery was found, dating from the period mid 2nd century AD to the 4th century AD.

ii) A cultivated soil layer from the post-medieval period, which contained pottery from the Verwood kilns.

John Valentin
AC *archaeology*

RICARDO'S YARD, DORCHESTER

A watching brief was carried out during January 1993 at the former Ricard's Yard, Alfred Place, Fordington, Dorchester (SY 69829039). Site levelling and the excavation of foundation trenches for a new housing development were observed. The monitoring revealed a complex of ditches and several pits, none of which contained any diagnostic artefacts, but are considered likely to be prehistoric in date.

Jacqueline Dodd
AC *archaeology*

SQUIRREL COTTAGE, EAST HOLME

A watching brief was carried out during topsoil stripping prior to mineral extraction on land at Squirrel Cottage, East Holme (around SY 905852). No features or finds of archaeological interest were present.

Jacqueline Dodd
AC *archaeology*

A37 ROAD IMPROVEMENTS, EVERSHOT

Archaeological monitoring was carried out at four locations north of Evershot.

Area A (centred on ST 59250489), involved the monitoring of topsoil stripping in an area where a prehistoric pit had been discovered during the initial evaluation (Cox, 1993 *Dorset Proceedings*, 114, 234). No additional archaeological features were identified in an area covering approximately 0.5 hectares.

Area B (centred on ST 590056), contained no features or finds of archaeological interest in an area of approximately 0.3 hectares.

Area C (centred on ST 5901805306), involved the excavation by hand of a 2m wide section across a low bank and ditch, which forms the historic boundary between the parishes of Melburyh Sampford to the west and Melbury Bubb to the east. No dating evidence was recovered from sealed deposits, although fragments of 19th century pottery were recovered from the upper fill of the ditch.

Area D (Engineer's Tip centred on ST 59160570), and haul road ST 59100521 to ST 59120560). Topsoil removal of an area *c.* 2ha was monitored, with no archaeological features or finds observed.

Peter W. Cox
AC *archaeology*

FURZEY ISLAND

A watching brief was carried out during the installation of a new electric cable towards the boathouse on the north shore of the island (SZ 012871). This route ran within ten metres of where a Middle Age Iron Age midden had previously been identified in the saltmarsh, but on rising land at least one metre higher. No archaeological finds or deposits were observed.

Julian Cotton
AC *archaeology*

CENTRAL PARK RESTAURANT, POOLE

Observation and recording of deposits exposed in a contractor's foundation trench to the rear of the Central Park Restaurant, Sarum Street, Poole (SZ 0087090345) was undertaken during June 1993. A sequence of stone wall footings underlying a brick wall running at right angles to the street frontage was recorded, together with evidence for oyster middens, potentially of late Saxon date.

Julian Cotton and Julian Richards
AC *archaeology*

KING'S HEAD, HIGH STREET, POOLE

Observations and recording of a kitchen extension (SZ 0088990372) was carried out in June 1993. Archaeological material was limited to a stone wall foundation which, cartographical evidence suggests, is probably late 18th century.

The work was commissioned by the landowner, Hall and Woodhouse Ltd, and the archive is lodged with Poole Museum Service under the reference PMO85/DR8.

D.R. Watkins and K.W. Collins
Borough of poole Museum Services

POOLE POTTERY, THE QUAY, POOLE

The repair of a large diameter (600m) surface water sewer in September 1993 afforded an opportunity to examine the stratigraphic sequence in this area of the Quay. A trench was excavated at the junction of Old Orchard and the eastern Quay (SZ 01159027). Dark soils were noted to a depth of approximately 3m below the modern road surface. These deposits were heavily disturbed by the original pipe-laying. Below these soils, and to a depth of approximately 1m was a layer of oyster shells within a grey sand matrix. This depth was the limit of excavation at which there was no sign of the base of the oyster layer. The position of this layer appears to coincide with the 'Oyster Bank' shown on Sir Peter Thompson's map of 1751 (Borough of Poole archives). No artefacts were found to enable the dating of this layer; oyster industries are known in Poole for several periods, notably between the 9th and 12th centuries and in the 17th century (Winder 1992, 199)

D.R. Watkins
Borough of Poole Museum Service

Winder, J.M., 1992, 'The Oysters', 194-200 in Horsey I.P., *Excavations in Poole 1973-1983*, DNHAS Monograph Series Number 10.

WHEELERS LANE, BEARWOOD, POOLE

The groundwork for the construction of a new school (SZ 04559675) was accompanied by a programme of archaeological observation and recording. This was subsequent to an earlier evaluation (Hearne 1993). Four linear features were recorded one of which produced two sherds of pottery of a probably Romano-British date. The other three ditches or gulleys appeared to be part of an earlier, contemporary system.

The archive is lodged with Poole Museum Service under the reference PMO 88/DR9. The work was commissioned by Building Services Department, Dorset County Council.

D.R. Watkins and K.W. Collins
Bororough of Poole Museum Services

Hearne, C.M., 1993, 'Wheelers Lane, Bearwood, Poole', *Dorset Proceedings* 114, 237

NORTHERN LIGHTS, SHAFTESBURY

Observation of the foundation trenches for a new building north of Bimport (ST 86012301) revealed the upper levels of a substantial but undated ditch aligned in a north-west/south-easterly direction. It is possible that this feature is a continuation of a large feature partially exposed during the redevelopment of the Savoy cinema site (Wessex Archaeology unpublished report). This feature, which follows the line of Abbey walk to the south, could be the ditch of the Saxon *burh*, the line of which has not yet been convincingly established.

Julian Richards
AC *archaeology*

ST. JOHNS HILL, WAREHAM

A watching brief was carried out in May and June 1993, at St. John's Hill, Wareham (SY 92458727), during the excavation of trenches for foundation pads for a new housing development. The monitoring of the trenches revealed a general sequence comprising: upper levels of probable 18th or 19th century building footings, overlying a deep black soil-deposit of post-medieval date. This was above a deposit of

brown sand, through which several features of post-medieval and medieval date were cut.

Jacqueline Dodd
AC *archaeology*

WAREHAM LADY ST MARY - ST JOHN'S HILL

A fragment of human jaw bone was unearthed during garden work at 2/3 St John's Hill (SY 924873). The lower piece of mandible belonged to a male approximately 30 years old. The condition of the teeth which had a high level of bone support, indicated healthy gums and a reasonable life-style and diet. Although the teeth were heavily worn (due to diet), there was no dental caries. A notable feature was the large size of the mandible - modern jaws are considerably smaller.

Thanks are extended to Hugh Lane for dental identification.

Lilian Ladle
Wareham and District Archaeology and Local History Society.

WAREHAM LADY ST MARY, 6 ROPERS LAND

Trenches to a depth of 1.8 metres were hand-dug prior to the construction of an extension to the house on the east side of Ropers Lane (SY 922875). No features were recorded but a number of large fragments of pottery were retrieved. They included three sherds of Black Burnished ware and one piece of Roman grey ware. There were six sherds from hand-made cooking pots which dated to the 11th-12th centuries and are comparable to similar recorded material from Wareham and Corfe Castle.

Lilian Ladle
Wareham and District Archaeology and Local History Society

Renn, D.F. The Keep of Wareham Castle", *Med. Arch.* (1960), 56-68

RCHM "Excavations in the West Bailey at Corfe Castle", *Med. Arch.* (1960), 29-55.

BROOKSIDE FARM, WIMBORNE MINSTER

Monitoring of groundworks for the first phase of development at Brookside Farm, Wimborne Minster (SU 02809992) revealed no evidence for archaeological features. The site is situated on the Stour floodplain, with much of the area disturbed by recent agricultural buildings. Worked flint was collected from the gravel alluvium.

Andrew Weale
AC *archaeology*

EARTHWORK AND STANDING BUILDING SURVEYS

A CIRCULAR EARTHWORK AT NYLAND, KINGTON MAGNA, DORSET

An earthwork consisting of a circular feature with ditch was noted on air photographs (RAF VAP CPE/UK 2038:1308 1946 and RN Variable *c.* 2000 ft 4310C/6 1980), adjacent to the east side of Manor Farm, Nyland (ST 74852185), (Ross 1985, 29).

The central area of the site presents as a slightly raised feature some 70m in diameter, with low earthworks visible within, and a shallow, splayed ditch surviving on the north side. To the west, the ditch forms part of the garden boundary of the Manor Farm which has encroached slightly on the feature, while to the east and south, it has disappeared as a result of farming practices. An eccentric curve in the lane, avoiding a semi-circular plot below the entrance to the Manor Farm, and a curved field boundary just west of the farm, are distinctive and appear to mimic the feature and can be seen on the Ordnance Survey Map of 1811, but is illustrated more graphically on the County Map of 1902, 1:2500 (Fig. 6).

The hamlet of Nyland forms about one-third or rather more than 600 acres of the south-western part of the parish of Kington Magna. Its name 'The Island' [OE *ieg-land, le, la*] (Mills 1989, 42), neatly encapsulates the topography, for Nyland is virtually an island of Oxford Clay at *c.* 180 feet OD, surrounded by the Alluvium and marshland of the River Cale on the north and east, with the Bow Brook on the south.

The presence of a Roman site, possibly a small farm on higher ground at *c.* ST 745220, was established by the discovery of sherds of samian and Black Burnished ware by fieldwalking (Ross 1985, 34).

Prior to 1086, the two small settlements of Higher and Lower Nyland were already in existence (Taylor 1975, 68), but Domesday Book describes holdings of five hides for the manor of Nyland, of which one was waste (Thorn and Thorn 1980, 26.2), and the frequency with which this multiple of five hides occurs in Dorset is now interpreted as the liability of a manor to pay tax rather than its acreage (Keen 1991, 8), which would appear to heighten its importance. This is perhaps borne out by the presentation of the manor of Nyland to the Abbess of Shaftesbury in 1285 when Drew of Montacute's daughter became a nun there (VCH 1968, 43).

A small quantity of medieval pottery sherds was found in fields at Nyland and old boundaries show evidence of likely medieval strip fields although not in the immediate vicinity of the site (Ross 1985,

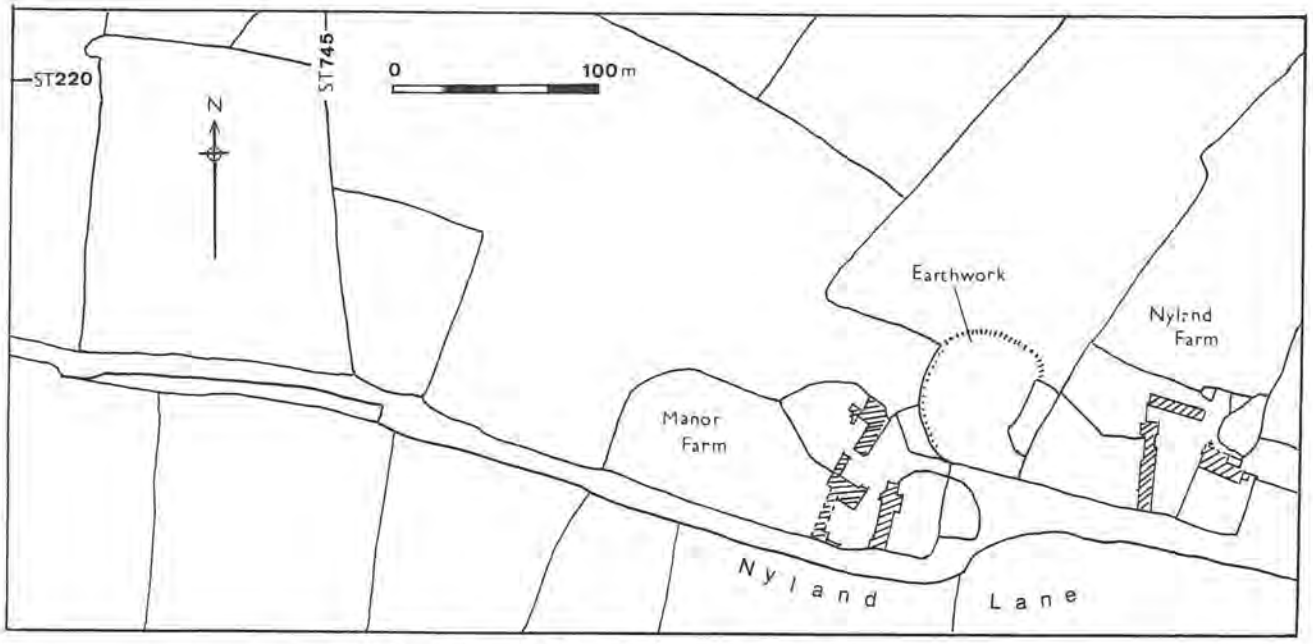

Figure 6. Nyland, Kington Magna: Location of Earthwork.

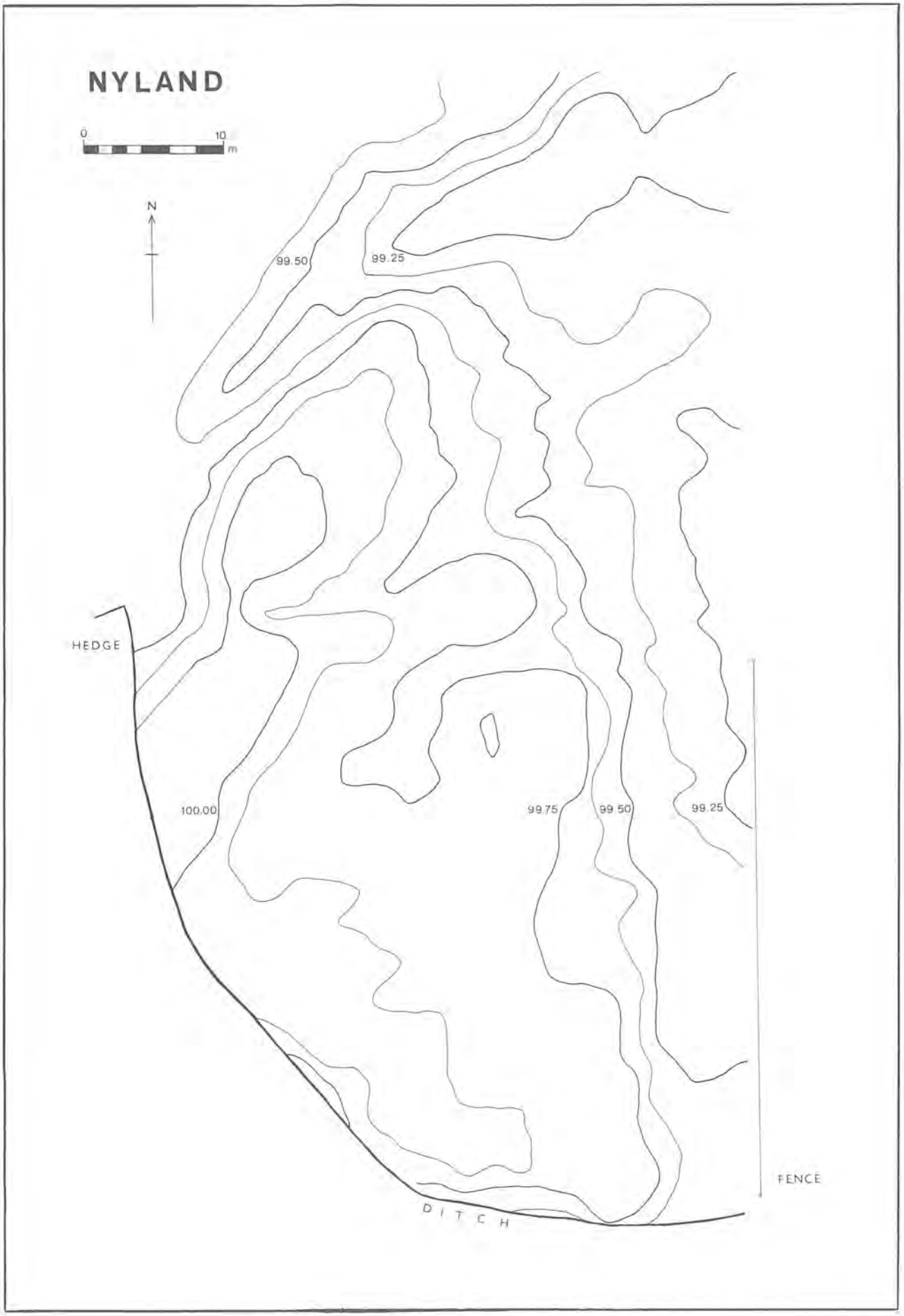

Figure 7. Nyland, Kington Magna: Contour Survey of Earthwork.

35, fig. 8). References to the North and South fields and land newly enclosed are found in Surveys of the Manor of Nyland in 1559 and 1608 (Public Record Office LRE/191 folios 74-79, 83-93, Dorset Record Office microfilm). The Manor Farm is said to date from *c* 1800 and the adjacent Nyland Farm from the early 18th century (RCHM 1972, 43).

A topographic survey was carried out in 1989 using a plane table (Fig. 7), and subsequently geophysical and hachure surveys were undertaken by students of the Bournemouth Polytechnic (now University) in 1990-1991, under the direction of John Gale. However, the geophysical survey did not enable details of the interior of the enclosure to be determined.

The purpose and date of this unusual monument on low-lying clay land can only be speculative. A prehistoric henge may be virtually ruled out and there does not seem to be any precedent for Roman settlement of this type. In view of the history of early medieval occupation in the area, a moated site, perhaps as part of a medieval manorial complex, is its most likely use.

It is intended to carry out further investigations in due course.

ACKNOWLEDGEMENTS

The permission of the landowner, Mr. John Dufosee, to carry out the surveys is gratefully acknowledged. The helpful surveys undertaken by Bournemouth Polytechnic together with assistance from members of the Shaftesbury and District Archaeological Group are much appreciated.

M. Ross
Shaftesbury and District Archaeological Group

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GUILDHALL, MARKET STREET, POOLE

A survey was carried out in November 1993 on the cupola of the 18th century Guildhall. Drawn elevations and a photographic record of the wooden facings were made in advance of a programme of repairs.

The archive has been submitted to English Heritage, via Poole Borough Council, and a copy is at Poole Museum Service under the reference PMO 94.

L.M. Anderson
Borough of Poole Museum Service

THORNGROVE, GILLINGHAM, DORSET

Spoil from a pipe-line trench was being used to fill in a ditch, previously unrecorded, in the grounds of Thorngrove (ST 79452590), a horticultural centre run by the Spastics Society. Staff there alerted the Ancient Monuments Liaison Officer for the area, W.F. Moore. As a result, a preliminary contour survey by the Shaftesbury and District Archaeological Group was carried out, which showed ditches and banks on three sides of a roughly rectangular feature some 100m across, which was thought to be a moated site. The corners of the north and east banks were cut by a rough pond in the north-east, which was obviously all that remained of the moat. There were various internal features including parchmarks of a rectangular building over an area of stony ground, however, these were not apparent when the survey was carried out by the RCHM, due to changing weather conditions.

Although not named, Thorngrove may have been one of the nine Domesday entries for the royal manor of Gillingham (RCHM 1972, 27) but lay outside the bounds of the forest. This royal estate was continually granted to the queen on the day of her jointure (*ie* after her husband's death) and reverted to the king on her death, and is so recorded from 1299 (Hutchins 1774, 229).

Thorngrove is also described as '*the Quenes ferme of Gyllyngham*' in *Forest Proceedings (tempore* Elizabeth, 1558-1603; Mills 1989, 18*)* and Hutchins states .... 'this farm is still called the Queen's Farm where was supposed to have been anciently a house for her reception' (1868, 229). It was part of the 'capital messuage or site of the manor' of over 300 acres in the *Survey of the Manor of Gillingham c.* 1612-13 (Dorset Record Office) MIC/R/1).

In view of the importance of the archaeology and the historical background, it was decided to ask the Royal Commission on Historical Monuments to visit the site and carry out a survey which was completed in 1991 and which they will publish in detail at a later date (Fig 8).

Initial information and subsequent permission to examine the site by staff of the Spastics Society, Chris Allen and Martin Lomas, is gratefully acknowledged. Advice and subsequent surveying by Carenza Lewis and David Field of the RCHM was much appreciated as well as work by members of the SDAG in very hot weather namely, Nancy Grace, Sheila Himmel, Bill Moore, John Pinnock, Lorrie Van Veen and Merry Ross. Correspondence about the place-name with Mr. A.D. Mills helped to clarify the historical position and is acknowledged with thanks.

M. Ross
Shaftesbury and District Archaeological Group

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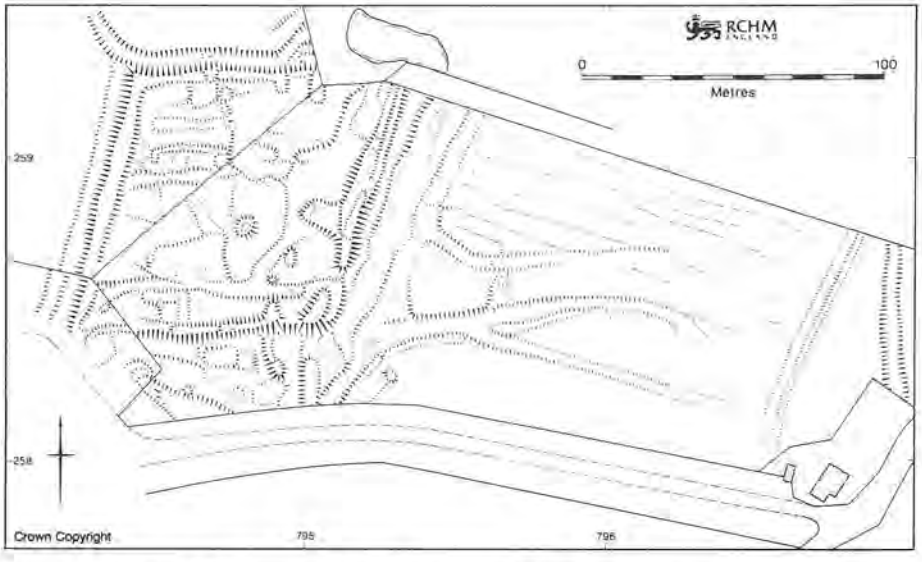

Figure 8. The earthworks at Thorngrove Gillingham surveyed by RCHM.

RCHM, 1972, Royal Commission on Historical Monuments, England: *An Inventory of Historical Monuments in the County of Dorset*, Vol. IV

WHITE MILL, SHAPWICK

White Mill, Shapwick lies beside the River Stour north-west of Wimborne (ST95810062). It consists of a brick mill house with adjoining mill and bakehouse. The building is of great value because it houses timber mill machinery, much of which dates to the rebuilding of the mill in 1776.

The buildings and machinery at White Mill are to be refurbished during 1994, with a view to opening the mill to the public in 1995. Alterations to the fabric will be the minimum possible to conserve the building and allow safe public access.

An extensive photographic record has been compiled. Detailed drawings of the machinery have been made by Martin Watts the millwright commissioned to carry out repairs. Plans and elevations of the mill and mill house have been drawn and are held at Kingston Lacy Estate Office.

Documentary work has been carried out and the Bankes Family Archive contains detailed accounts of the mill, leat and flood gates in the 18th and 19th centuries.

In May 1993 the north-east and south-west cog pits of the mill, either side of the water wheel pits were excavated to their brick floors. The pits had been used as a rubbish tip after 1866 when the mill was converted from water power to steam power. The material within the pits includes a wide variety of pottery, glass bottles, farming tools and mill equipment mostly of the late 19th - early 20th centuries. The south-western pit contained a pile of coal which was presumably abandoned after the steam engine was removed from the site.

The leat of the mill has also become filled with debris from the late 19th century and part of this debris was excavated to a flagstone floor at the entrance to the stone lined water wheel pits. It revealed that the centre of the leat is filled with debris up to 1.2m above the leat floor. The silt in the south-west wheel pit, was partially excavated to reveal the bottom of a timber water wheel which was recorded and left in situ.

Archaeological monitoring will take place during the repairs to the mill in 1994.

Martin Papworth
National Trust

KNIGHTON FARM, BOROUGH OF POOLE

An ongoing programme of evaluation and excavation is being undertaken in connection with the construction of a new golf course at Knighton Farm, about 3.5km east of Wimborne near Canford Magna. The total development area encompasses approximately 136 hectares of undulating agricultural land on the lower slopes and floodplain of the River Stour.

The known archaeological importance of the local area, particularly for Neolithic and Bronze Age activity, is largely due to the enhancement of the local archaeological record which the Poole Museums Service Stour Valley Gravels Project has provided (see *PDNHAS* 1984-91). Much of the work for that project has concentrated on areas immediately to the south of Knighton Farm golf course (eg Moortown Aerodrome, White's Pit, Bearwood Pit). The Knighton Farm project provides a welcome opportunity to assess the zone more closely associated with the floodplain itself.

First 9-hole loop (centred on SZ 04259820) - deposits and finds of Mesolithic to Bronze Age date were revealed over the greater part of the survey area. Fieldwalking revealed distinct concentrations of worked flint, particularly Mesolithic blade industries, along with fairly high amounts of general Neolithic and Bronze Age material across the field. A sub-cordate of Wymer's type G was also recovered by fieldwalking (SZ 4040209851), Very few finds of later date (Iron Age onwards) were recovered. Trial trenches revealed postholes, pits, ditches and hollows. With one exception low levels of finds were recovered from these features, including small amounts of Neolithic and Bronze Age worked and burnt flint and a single sherd of Late Bronze Age pottery. One of the trial trenches produced a hollow, probably naturally formed, containing a group of Mesolithic blade cores, blades and flakes in mint condition, in contrast to that recovered by fieldwalking.

Second 9-hole loop (centred on SZ04009900) - deposits and finds of Neolithic and Bronze Age date were recovered including a pit containing a Late Neolithic Grooved Ware vessel and a small Middle Bronze Age cremation cemetery. The Neolithic pit (SZ 0422599400) was discovered in an apparently isolated location some 400m from the present course of the River Stour. The pit contained approximately half of a Grooved Ware vessel of the Durrington Walls substyle and a small collection of worked flint comprising a chisel arrowhead, a broken scraper and two flake cores. The cremation cemetery was located approximately 700m to the south (SZ 04059870). It comprised four urned cremations and probably two ununed. Reporting on the deposits and finds from the 2nd 9-hole loop is ongoing at the time of writing.

Practice Areas (centred on SZ 04159790) - evaluation has revealed archaeological deposits and finds of Early and Later Prehistoric date, extending over the greater part of the survey area. A large number of subsoil features were recorded including two circular structures. Late Bronze Age and Middle to Late Iron Age pottery was recovered from some of these features and the structures are of Iron Age date. It would appear that the Practice Areas correlate with a zone of extensive later prehistoric settlement.

A full report on the overall project results will be published in due course. The archive and finds are currently held at the offices of Wessex Archaeology (Ref. W559). The works were commissioned and financed by Mr. R. Harding via Woodlands Manor Estates Ltd, Planning Consultants.

Carrie M Hearne
Wessex Archaeology

Shorter Contributions

ARCHAEOLOGICAL ASSESSMENT FOR THE PROPOSED TOLPUDDLE AND PUDDLETOWN BYPASS (SY 743939 - SY 829951)

An interim statement

Introduction

The Liverpool University Field Archaeology Unit was commissioned by the Environmental Advisory Unit Ltd of Liverpool to carry out a series of assessments for the proposed Tolpuddle and Puddletown bypass. This work carried out in 1990 and 1991 included desk top survey, field-walking, earthwork survey, geophysical survey and trial excavation. The work was funded by the Department of Transport through the consulting Engineers, Frank Graham and Partners. The archive and finds will be deposited at the Dorset County Museum.

During the project a wide range of post-medieval sites and landscape features were noted but these will not be described in detail here. A general description of the findings of the field-walking is given below followed by a summary of the more significant artifact scatters and sites which were noted.

The Field-walking

The majority of the field-walking was undertaken on the Red Route where about 50% of the proposed line was available for study. Transects totalling some 75 km in length were walked across 20 fields. These produced a total of 2,660 finds. A significant proportion of these, 555 pieces, consisted of flint work. Although 24 cores and 45 tools were collected, the majority of the finds were either waste flakes, 319 examples, or burnt pieces, 167 examples. These were fairly evenly distributed over all the areas walked, the only notable concentration being on the steeply sloping side of the valley to the north-west of Tolpuddle (see Site C below).

The fields contained very little Iron Age or Roman pottery, 170 of the 180 sherds collected coming from a single settlement site near Tolpuddle Ball (Site H). A total of 379 sherds of medieval pottery and a few pieces of medieval floor tile were recovered, the majority of which, 286 sherds, also came from a single site (Site I). The quantity of post-medieval material in the fields was surprisingly small, the total number of sherds recovered amounting to only 672. This is a significantly thinner scatter than would be expected in other parts of the country and raises questions about the night soil disposal from towns and the way in which fields were used and manured.

The More Significant Sites Noted

Concentrations of artefacts from the field-walking together with information derived from the desk-top and other surveys identified 10 sites which are of particular interest. A summary of these is given below.

Site A - Survey near Bardolfeston DMV (SY 768949

Field walking and geophysical survey was carried out in the field immediately to the north of the deserted medieval village of Bardolfeston. There was no evidence of medieval pottery, house platforms or magnetic anomalies to suggest that the settlement ever extended into this field.

Site B - Devil's Brook Water-meadows, Burleston (centred on SY 775957)

The Devil's Brook water-meadows at Burleston were probably laid out during the 17th century and are now of particular interest since they are some of the very last working water-meadows in the country. A block of about 1.75 km in length remains in active use within which are a number of different layouts and methods of watering. A survey of the complex arrangement of channels and sluices used to control the water flow over the meadows was made and a record was made of contemporary water meadow terminology and management practise.

A rapid survey of other water meadow sites in the Piddle Valley from Piddletrenthide to Wareham was carried out. This suggested the existence of four principle types of system. Type 1 occurs in narrow valleys between 100 and 150m across with a single leat on one side, parallel to the straightened river. The blocks of meadow tend to be long and narrow and the relative positions of leat and river alternate from block to block. A good example was observed at Piddlehinton, 800m north-east of Druce Farm, Puddletown (SY 741961 to SY 738967). Type 2 occurs in slightly less narrow valleys between 150 and 250m across with two leats on opposite sides of the river. The valley is usually divided into short, squat rectilinear blocks with sluices on both river and leats. Devil's Brook is a good example of this type. Type 3 water-meadows are found in broad, more mature valleys (250-500m across with two or more leats). The river is much less likely to have been straightened and the resulting meadow networks are more complex and often curvilinear. There are many sluices throughout the system. The earliest water-meadows appear to be of this type, such as those between Affpuddle and Briantspuddle (SY 807973 to SY 817934). Type 4 water-meadows occur lower down the valley where it is narrower, 200-400m across, and the river is cutting a much deeper channel through alluvium over the Reading and Bagshot Beds. The meadow systems are simpler than in Type 3 but require more sluices and leats. A good example is to be found south of Trigon Farm at Wareham St Martin (SY 883885) where attempts were made to rejuvenate the system in the 1960s.

Site C - Flint Scatter at Tolpuddle (SY 782948)

A scatter of flint work was found on the eastern side of a dry valley. The ground at this point was falling away quite steeply from a small wooded ridge which appeared to be quite sandy and well drained. The flintwork collected was principally of Late Neolithic and Early Bronze Age date and included a well preserved barbed and tanged arrowhead. Although this site produced one of the most dense concentrations of tools collected there were not a great number of cores present which, together with the steep slope, makes it unlikely that this was actually a settlement site.

Site D - The Roman Road north-east of Tolpuddle (SY 79999493)

The Roman Road between Badbury Rings and Dorchester was cut by the proposed road line just to the north-east of Tolpuddle. Nothing was known of the state of preservation of the road at this point, although at Ashley Barn, 1km to the north-east, there is a section which is sufficiently upstanding to have been scheduled as an ancient monument. The area around the Roman road which was field-walked produced a single sherd of Roman amphora. A section was excavated across the road to establish the extent of below ground preservation.

The Roman road line survives in use as a farm track at this point. It is unfenced on the northern side but has a small bank on the southern side, with a fence on top. The flanking fields consisted of a light sandy soil with flints to a depth of about 20cm. Below this point, the soil gradually merged with a Pliocene braided river terrace deposit containing numerous flints. The track surface itself consisted of a single layer of rounded flints about 5m wide. This track had some older rut lines within it, particularly under the grass verge below the bank on its southern side. The flint metalling was bedded directly onto natural chalk. There was no buried soil beneath the flints and no Roman pottery was recovered from the metalling to suggest that it was of that date. No flanking ditches were found. Given the lack of buried soil and the fact that the track is still in use it seems quite possible that the original surface has completely eroded away. The surviving metalling is probably of medieval or post-medieval date.

Site E - Possible burial mound (SY 802948)

A circular soil mark underlying the modern (post 1794) field boundary was noted from an aerial photograph taken in 1989. This feature is situated about 500m west of Tolpuddle Ball and on an extension of the same ridge. It is possible that this feature represents a further prehistoric burial mound forming part of the same group.

Site F - Tolpuddle Ball (SY 808947)

There are two surviving burial mounds on the summit of Tolpuddle Ball and lynchets around the spur of land to the north. A geophysical survey was carried out across the area affected by the proposed road scheme. This produced an anomaly along what appears to be a former post-medieval fence line. No other evidence of features in this area was detected.

Site G - Crop Marks to the south-east of Tolpuddle Ball (SY 810945)

Possible crop-marks in the field to the south-east of Tolpuddle Ball were noted from the aerial photograph survey. Trial excavations and

geophysical survey were carried out but failed to locate any evidence of buried features in this area.

Site H - Iron Age and Roman Pottery Scatter at Tolpuddle (SY 814947)

A discrete concentration of Iron Age and Roman pottery was recovered at this site during field-walking. Trial excavations produced a human burial as well as evidence of features cutting into the natural chalk. As a result full excavation of the site was carried out during 1993, details of which are given elsewhere in this volume.

Site I - Medieval Pottery Scatter at Bere Regis (SY 829952)

Field-walking and trial excavations were carried out on the site of a medieval pottery scatter in a field about 1.5km west of Bere Regis. Medieval pottery was found within what appeared to be earlier plough soils up to 60cm below the modern surface. A dark spread of buried humic soil containing medieval pottery was found in two of the trenches. This soil contained a thin scatter of charred cereal grains and other weeds of cultivation. There were also a number of hazel nut shell fragments. The deposit contained little charcoal. No evidence of any occupation surface or archaeological features were found.

Site J - Athelhampton Deer Park (centred on SY 770935)

An assessment of Athelhampton Deer Park was carried out. This showed that the whole of the external boundary of the park could be traced on the ground and survived as earthwork banks or lynchets. It appeared that Cantor and Wilson's eastern boundary (1966) was placed too far to the east and ignored a major lynchet running from Fir Mount to Park Farm. As well as its external boundary, many of the internal sub-divisions of the park can be identified. Within Cowpound Wood there is also a section of the Dorchester to Badbury Rings Roman road which survives as an impressive earthwork. Much of the southern part of the Park is now under woodland consisting mainly of oak with coppiced hazel; the size of the hazel stools suggests a considerable period of traditional woodland management.

Reference

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David Alan Higgins and Peter John Davey
University of Liverpool

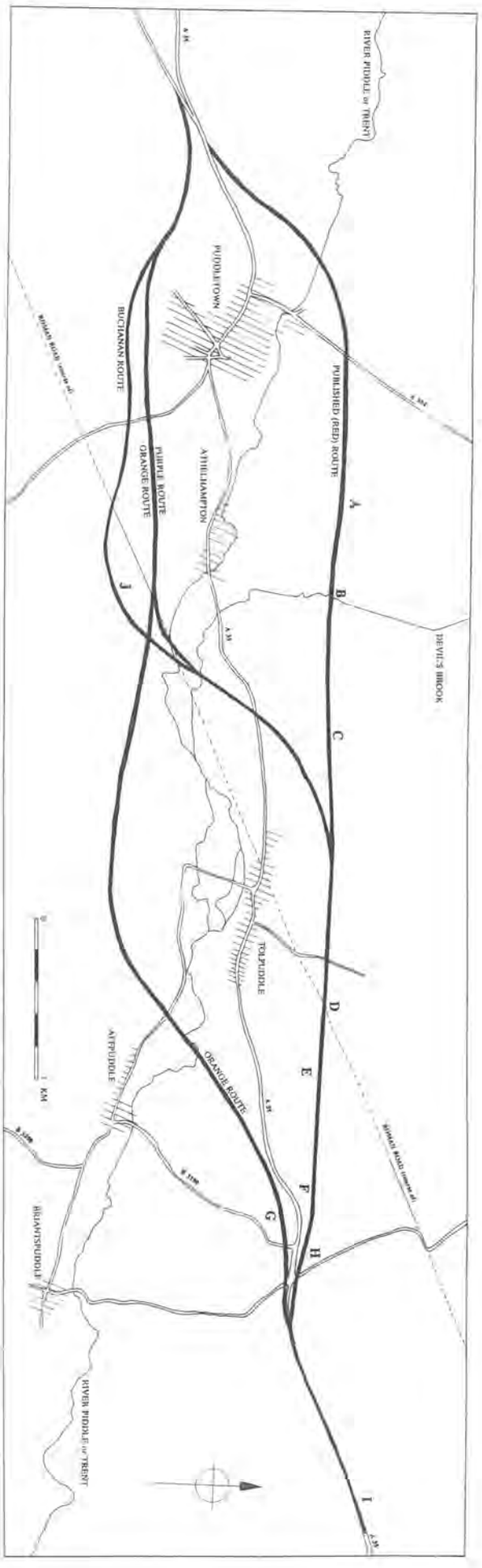


Figure 1 Proposed Tolpuddle and Puddletown Bypass showing location of sites.

MARY OZARD AND 'THE AFFAIR OF THE BASTARD'

Glanville J. Davies

In the parish of Corfe Castle on Monday, Jan 9, 1770, Mary Ozard, an unmarried servant girl aged 22, gave birth to a son. In itself, this was not remarkable, for as every J.P. and Overseer knew, such births occurred more frequently than parishes found convenient. The application of the law to illegitimacy was long established and quite clear: if the child was likely to become a charge on the parish, then the pregnant woman would be questioned by a J.P. and, if that parish was not her legal place of settlement, a Removal Order would be issued; if she was a resident, then a Warrant to apprehend the putative father would be made out. The father would then be summoned to appear before a J.P., and he was offered several choices: to marry the woman and so take responsibility for her and the child; to provide a Bond indemnifying the parish against any charge; or be subject to an order compelling him to pay a weekly maintenance of two shillings.

Generally, even before the birth, poverty forced unmarried mothers to apply for poor relief, but despite her straitened circumstances Mary Ozard did not do so. She and her younger sister, Elizabeth, lived with their parents. The realization that there was another mouth to feed could not have been welcome news to the Ozard family, for they only received John Ozard's labourer's wage of 7/- a week. But, until Mary named the father and applied to the parish for poor relief there would be no extra income, and the maintenance of the mother and her child would have to be found out of John Ozard's weekly wage.

The birth prompted one unusual incident: when Sir Thomas Bankes l'Anson, the Rector, was told by Price, the Church- warden, that Mary was pregnant, he went to Ozard's cottage in company with Price, and 'expostulated with her' and persuaded her to meet him that night in the Rectory, and there to swear on oath the name of the father. The examination of the mother of an illegitimate child was normally the responsibility of a J.P. That night Price called at the cottage, collected Mary and her mother, Sarah, and drove them the mile or so to the Rectory. There, with no J.P. present, the Rector, in his own handwriting, wrote an oath testifying to the father's identity. With all due solemnity he then produced a Bible and demanded that Mary swear on it. In an extraordinary scene, the mother stepped forward and 'snatched the Book out of there hand and declared her daughter should not swear to the father and immediately quit the house'.

Naturally there was a certain amount of speculation among friends and neighbours about the identity of the father. As Mary was employed as a servant in the house of George Pitt at Encombe, speculation naturally centred around men with whom she worked. Various names were mentioned: John Harris, John Toop, Robert Briggs, and William Burden, with all of whom she was supposed to have had sexual relations. But Mary made no response. Elizabeth Burfield, who had acted as Mary's midwife, was not told the father's name, despite her curiosity and persistent questioning. George and Betty Benfield wondered whether the father was a quarrier: '... let me see this same child of yours. They tell me it is a Brother Quarrier. I can soon tell by its fingers whether he is a young Quarrier or not.' But even under such demanding questioning, and all the pleadings of her friends and neighbours, Mary Ozard refused to give the name of the father. This silence she maintained for six months until, in August, she was forced to apply for parish relief because her family could not continue to support her without some assistance from the poor rates. No longer could she withold the father's name. Whatever the speculation, and however wild the imaginings, no-one was prepared for the name she uttered: Sir Thomas Bankes l'Anson, the rector of Corfe Castle, and the very cleric who had christened her son, Robert, when he was five days old.

This announcement burst like a bombshell in the close-knit community, and 'everybody was much amazed and frightened thereof'. Clearly, while it was not impossible that Sir Thomas was the father, an accusation of this kind against an eminent and respectable churchman, socially far removed from the lowly status of Mary Ozard, was wholly unexpected. Rumour abounded. Some claimed that Mary's father, John Ozard, was a violent man who had beaten Mary to within an inch of her life, and forced her to make such an accusation.; others claimed that Mary was a 'Girl of Lewd Fame' who had had sexual relations with several men and that one of those was probably the father, and in order to protect his name she was prepared to utter this wicked lie. Gossips seized on this idea and went even further by whispering that Mary and her sister would occasionally stay out all night with men. Opinion hardened; one man - an unnamed footman in the employ of Mr Pitt - was the father, and he lived in fear that someone would discover his guilty secret. Mary's false accusation was to protect her lover. On one thing all were agreed: Mary Ozard was treading a dangerous path, for only women who were stupid or reckless uttered such a blatantly false accusation in public. The law was clear and everyone knew it: 'for wrongfully charging a Man with getting a Bastard upon her Body' a woman could be punished by a public whipping and an unpleasant sojourn in the pillory, or even a life sentence in the House of Correction.

The man she accused, Rev. Sir Thomas Bankes l'Anson, had been born in Montpelier, France, trained in law and theology at Oxford, and at the age of twenty-four had accepted the living of Corfe Castle. He was one of those fortunate clerics who had not had to serve, as many did, a long and poverty stricken apprenticeship in the church, for he was related to the Bankes family in whose gift the Rectorship of Corfe Castle lay, and he had married into another landed family, the Hayters of Creech. As Rector of Corfe Castle and Prebendary of Wells church he enjoyed a comfortable life, and among the many servants he had employed in the Rectory was Mary Ozard. She had been a servant from 1762 to 1769, when she had left to become briefly a servant in the house of Mr Pitt. Certainly Sir Thomas knew Mary, but their relationship, so far as everyone knew, had been one of master and servant.

Once the accusation became public people's opinions divided. In their own interests, those who were employed on the estates and farms of the Bankes and Bond families adopted the attitude that the Pitt family had inspired this calumny in an attempt to blacken the name of the Rector, and so damage the reputation of the Bankes family in particular. Those who felt a loyalty towards the Pitt family suspected that this accusation of Bastardy was probably true, and one need look no further than the culprit, Sir Thomas Bankes l'Anson. All kinds of marginally relevant 'evidence' was eagerly considered: John Ozard, who was employed on Pitt's estate as a day labourer, had been compelled to implicate Sir Thomas Bankes l'Anson, otherwise he would have been turned out of his job and his house. Various servants of the Pitt family had 'had carnal knowledge' of Mary Ozard, so it was obvious that the Pitt family was trying to implicate the Rector falsely. Indeed the gossip widened and eventually seemed to involve an entire conspiracy, with the Pitt family at the centre of this web of lies and deceit. But these were fanciful attempts to establish a conspiracy against Sir Thomas. There was no evidence that the Pitt family was involved, and Mary Ozard seemed a humble instrument for such a large conspiracy among the wealthy and great.

While the idea of a conspiracy received little general support, there might, nevertheless, have been some support for the idea that Sir Thomas was an innocent man falsely accused, but, unfortunately, Sir Thomas himself commanded little personal sympathy and loyalty among his parishioners. He had a haughty, imperious manner, and he had already alienated a considerable number of people. Within a short time of taking office he had refused to hold a Visitation Court to appoint Churchwardens, and he had summarily dismissed one Churchwarden because he had not personally chosen him. When the parish officers were on the point of referring the matter to the bishop, he had curtly reminded them that Corfe Castle was a royal peculiar, and so he could claim exemption from episcopal and archdiaconal visitation and control. The fact that the previous incumbent had consulted his Churchwardens before any new appointment did not, in Sir Thomas's eyes, constitute a guide to his method of appointment, or a precedent. He had also utterly neglected the chapel at Kingston - perhaps a typically unsentimental gesture from a man of his nature., because he had married there in 1753 - and the fortnightly services which his predecessor had held there had lapsed. Indeed, the situation at Kingston chapel was so bad by 1770 that worshippers could not find the entrance because there was so much earth heaped against the walls, and the Chancel was so in need of repair that the rainwater poured into the building. The Rector of Corfe Castle was responsible for conducting services at Kingston, but only after George Pitt had agreed to pay £15 per annum to the Curate did Sir Thomas agree to allow services to be held there every alternate Sunday. It was also the Rector's responsibility to maintain the chapel and keep it in good repair, but with no appeal to the bishop, the Churchwardens were advised by legal counsel that it they undertook the repair themselves, they could find that the Rector might refuse to pay them, and without recourse to an expensive and protracted law suit they might never be repaid. Indeed, at the time of the birth of Mary Ozard's child the relationship between Sir Thomas and the Churchwardens had reached the point where legal counsel was being sought by both sides in preparation for a law suit.

When Mary Ozard was finally forced to ask for poor relief she, quite properly, applied to Benjamin Bowering, one of the Overseers of the Poor. The payment of relief from the poor rates was conditional upon her naming the father. Bowering knew his duty, and in accordance with the law he immediately took steps to refer her to a local J.P. so that she could be examined, and swear on oath the name of the father. But here one encounters a second strange turn of events. George Clavell, the J.P., who should have conducted the examination, refused to see her. While Bowering went into the house to speak to him, Mary Ozard remained outside in the cart, and when the Overseer emerged he gave her no reason why the J.P. had refused to see her, but, instead, gave her three shillings. Puzzled, she asked why she was being given the money, and Bowering simply said that it was for her trouble. Applicants for poor relief generally received a sum which varied from sixpence to one shilling and sixpence, but three shillings was exceptional. One can only conclude that this sum was not paid out of the poor rates, nor out of Bowering's pocket, but was a private gift from Clavell. He knew that unless he was prepared to examine her, take her oath naming the father, and then swear out a warrant to apprehend the named man, she could not receive any poor relief. Perhaps Clavell felt sorry for her, and realised that by his deliberate inaction he was denying her the assistance which she desperately needed. It was obvious, of course, that Clavell had been forewarned, and that he had heard the rumour already that Sir Thomas had been named as the father. He realized that this was an explosive issue, and he probably had no intention of jeopardising his position in society by administering an oath which would lead inexorably to a warrant ordering the parish constable to apprehend the Rector and bring him before a J.P., just like any common criminal. Clearly, he needed support, and he turned to a fellow J.P., George Pitt, an M.P. and the owner of the manor of Kingston which he, Clavell, leased. They decided to examine Mary Ozard together. Clavell must have been relieved that at this difficult time he was able to count on the support of the powerful Pitt family.

In August, at the time that Bowering and Mary Ozard had visited Clavell, the rector was not in the parish. He had not been seen since Sunday, February 4, exactly three weeks after he had christened Robert, 'the Base born child' of Mary Ozard. According to Lady l'Anson he had suffered 'a paraletick stroke', and on the advice of Dr Poulteney of Blandford he had left to go to Bath to take the waters. Not until September 27 did Sir Thomas return to Corfe. Without clear evidence it is impossible to be certain whether this incapacity of Sir Thomas was genuine, or a diplomatic illness which gave him excuse to be absent from the parish. Certainly, his illness did not prevent him angrily confronting Bowering, the Overseer, when he returned from Bath, and demanding to know why he had invented 'the most impudent Falsehood that ever was devised'. Bowering must have been at a loss to understand how Sir Thomas could interpret the accusation of Mary Ozard and the stream of rumour as the invention of an Overseer of the poor. But, Benjamin Bowering was John Pitt's bailiff, and perhaps Sir Thomas was already beginning to form the idea that his humiliation was partly due to the influence of the Pitt family. One thing is clear: Clavell and Pitt delayed the examination of Mary Ozard until well after the date that Sir Thomas returned from Bath. Perhaps this delay was deliberately planned so that Sir Thomas would have time to recover from his illness and make an appearance before the J.Ps. It is interesting to note that by the time Mary was examined and forced under oath to name the father, she had received twelve shilling from the poor rates. A payment of that kind - made before an examination - could only have been authorised by a J.P., and one must suppose that Clavell, who had already shown kindness towards Mary, had also ensured that some money would be provided for her out of the poor rates.

Sir Thomas was given notice that the examination of Mary Ozard would take place on Thursday, November 15, and this was his opportunity to deny the accusation and give notice of appeal. But Sir Thomas did not attend. The message was sent from the Rectory that 'he was not in a condition to attend, not being able to walk across a room'. Accordingly, Clavell and Pitt made out 'An order for the reputed Father of a Bastard Child to discharge the Parish', and Sir Thomas was ordered to pay twelve shillings to the Overseers, and two shillings and sixpence a week to the mother 'so long as the child shall be chargeable to the Parish'.

During the examination, Mary Ozard gave further details. She had become pregnant before leaving the employ of Sir Thomas, and this fact was known to the Churchwarden, Mr Price. (Unfortunately, Price had recently died.) When her pregnancy became obvious to everyone, Sir Thomas had given her £10 and begged her to say that the father was a footman employed in George Pitt's house at Encombe, where she was then working. When it became clear that Mary was not going to do that, in return for her silence Sir Thomas agreed with Mary's father to pay all expenses of her lying-in, and provide maintenance of half a guinea a month. We can infer that when Sir Thomas left for Bath the payments stopped, and this had forced Mary to apply for poor relief.

Not until the examination was concluded and the warrant issued did Sir Thomas begin to seek advice. Possibly because of her husband's incapacity, Lady l'Anson took the initiative and wrote to John Bond of Creech Grange, the M.P. for Corfe Castle. But matters had already proceeded too far for any intervention by a local M.P. Bond's advice was prompt: obey the maintenance order but make the point that compliance was not an acknowledgment of guilt by Sir Thomas, it was merely an obedience to the Bastardy Order. Without lodging an appeal, however, this was a mere legal nicety; Sir Thomas had been formally acknowledged as the father, and he was responsible for paying maintenance, just like any other wayward father in any parish in England. Lady l'Anson had the humiliating experience, therefore, of having to pay the Overseers of the poor the weekly maintenance money to be passed on to Mary Ozard.

But there were, perhaps, matters of greater significance happening in the parish. The Churchwardens were preparing an action in law against the Rector for his neglect of the church chancels of both Corfe Castle and Kingston, his sale of pews in the church, the money from which he appropriated, his refusal to conduct the Sacrament, and his 'incontinency' - a word used at this time to indicate adultery. Apart from these charges the Churchwardens were seriously concerned because Sir Thomas's behaviour had become so strange that they began to doubt his sanity. While both parties consulted their lawyers and prepared their evidence, Sir Thomas also sought assistance from the Doctors Commons, the London based society largely composed of advocates who specialised in ecclesiastical law. For a time he stayed at the house of Mr Gostling at Whitton, near Hounslow, and gathered the advice which various members of the Doctors Commons could provide. But despite the warmth and hospitality which was displayed towards towards Sir Thomas, and the opportunity which he took to present his case personally, opinion was mixed. Mr Gostling, who appears to have struck a very cordial relationship with Sir Thomas, was firmly of the opinion that 'the Affair of the Bastard appears evidently a gross Conspiracy ... I have seen in my Time much extraordinary Evidence. I have with Sorrow more than Anger seen Intentional false Evidence, but I have never before heard of so many gross wilful perjuries contained in any Deposition.' But, perhaps a cooler and less subjective opinion was voiced by the lawyer William Wynne. He was of the opinion that in all probability 'the whole story was a Fiction, maliciously contrived to injure the character of a Man perfectly innocent', but, there was some evidence, and this had not been denied, that Lady l'Anson had dismissed Mary Ozard because there had been too much familiarity between Sir Thomas and his servant girl. That, and the fact that Sir Thomas did not appeal against the Bastardy order, nor publicly deny the accusation, 'certainly creates a suspicion that he was conscious of the Truth of the fact upon which the order was founded.' In the opinion of William Wynne, the balance of evidence was weighed against Sir Thomas.

The case of Symonds and Edmunds *versus* l'Anson, in which the Church wardens formally accused the Rector of neglect and misappropriation of funds, was heard in 1776, but there were no references to Mary Ozard. No appeal was made against the order of maintenance, and Sir Thomas continued to pay his weekly allowance. Mary Ozard remained at Corfe Castle with her father and mother, and died unmarried when she was thirty-seven years old. The fate of Robert, her son, is not known. His name did not appear in the parish records after his christening, neither did it appear in any nearby parish. Sir Thomas did not die until 1799, and it is sad to reflect that on Thursday June 23, 1785, when Mary was buried, the service was probably conducted by the Rector, Sir Thomas l'Anson.

Dorset Record Office (DRO), PE/COC: IN 11 and IN 12, Corfe Castle correspondence.
DRO, D/BKL 8c 66 Memorandum Book & correspondence, 1765-1772, Bankes collection.
DRO, D/RWR/L 5, Questions and answers on rights and duties of the Rector of Corfe Castle, 1771.
DRO, D/RWR/E 39, Letter of complaint against the Rector of Corfe Castle, 1758.
DRO, PE/COC RE 4/1, Register of Burials, 1773-1812.

I am indebted to Mr George Clarke M.A., for drawing to my attention various references in the Bankes collection.

THOMAS HARDY AND THE ALARM

George Lanning

The Alarm is the title of one of Thomas Hardy's poems and the heading of one the chapters in *The Trumpet Major*. In both instances the phrase refers to the alarm which was raised in Weymouth on May 1, 1804, when news was received that a French fleet had been sighted off Portland, causing the inhabitants of the town to believe that Napoleon's long-threatened invasion was finally taking place. There are also references to the incident in *The Dynasts*. Hardy's accounts of the event are, of course, fictitious. Even so, it is interesting to compare his fiction with the facts.

The details of what actually happened are not certain because there are so few contemporary accounts. A report was published in the *Sherborne and Yeovil Mercury* on May 7, 1804, but nothing appeared in the national press. There is a more-or-less contemporary account in the papers of James Frampton who was temporarily in charge of the Dorset Yeomanry at that time.[1] There is the journal of Elizabeth Ham who was 21 years old and living in St. Thomas Street, Weymouth, in 1804, but she did not compile her journal until some forty-five years later by which time she had to admit that, 'The season of 1804 has left but a dull picture of my memory.'[2] Finally, but hardly contemporary, there is a reference to the event in a series of 'Old Table Tales of Dorset' which William Barnes, who was three years old in 1804, contributed to the *Southern Times* in July 1859 under the pen-name 'Briton'.

Then there is the work of Thomas Hardy. This is based on oral sources. Although most of the historical references in *The Trumpet Major* are based on notes which Hardy made whilst researching in the British Library during the years 1878 and 1879, there is no reference to the alarm of 1804 in *The Trumpet Major Notebook*. His descriptions of the event are based on eye-witness accounts which he had heard from elderly people who had lived through the events of 1804. As he states in the Preface to *The Trumpet Major*, 'Almost the whole narrative of the supposed landing of the French in the Bay is from oral relation.'[3]

That there was considerable fear of an invasion along the Dorset coast is evident from various private letters which were written at that time. On October 14, 1803, for instance, Lord Dorchester wrote to a number of his friends urging them to make arrangements for moving their families away from the coastal areas, because, as he explained to James Frampton,

> Spring tides are tomorrow, and the information Government has is so precise as to Buonoparte's intentions that it is not improbable that he make an attempt within a day or two.[4]

At about the same time, at a humbler level, 17-year old John Clements, who was apprenticed to a Weymouth surgeon named Bryer, was writing home to his parents:

> Mr Bryer is entirely disengaged from any corps, but he has offered his services to assist the wounded. I am likewise to attend with him; the scheme for the escape of the other part of the family is laid out, but we are to remain here...I assure you we very seriously expect an attack, and that very soon. May we be prepared to meet our fate whatever it may be.[5]

In the short story, *A Tradition of Eighteen Hundred and Four*, Hardy explains clearly what there was to fear. He describes how

> On the other side of the Channel, scarce out of sight and hail of a man standing on our English shore, the French army of a hundred and sixty thousand men and fifteen thousand horses had been brought together from all parts and were drilling every day.[6]

The effect the threat of invasion had on individuals is well illustrated in *The Trumpet Major*. When troops first arrive, unexpectedly, at Overcombe, Widow Garland exclaims in alarm, 'Can it be the French?...Can that arch-enemy of mankind have landed at last?'[7]

Later, at the miller's party, when Corporal Tullidge is asked when he thinks the invasion will take place, he answers

> I can't answer to a day...but it will certainly be in a down-channel tide; and instead of pulling hard against it, he'll let his boats drift, and that will bring 'em right into Budmouth Bay. 'Twill be a beautiful stroke of war, if so be 'tis quietly done.[8]

In such a tense atmosphere it is little wonder that when the news reached Weymouth in the early hours of May 1 that the French were off Portland it was readily believed. Hardy does not mention how the news reached Weymouth but what seems to have happened is that the skipper of a fishing boat which put into Portland Harbour at dawn reported that he had just seen a French fleet a few miles off Portland Bill.

This news should have been relayed immediately to the mainland from the signal station which had been specially erected on the Verne for such a purpose. During the night, however, a thick fog had settled over the Channel, making Portland and Weymouth invisible from one another and making the sending of a signal pointless. In such circumstances, a warning shot should have been fired from the signal station's gun. Whether a shot was fired is uncertain but Hardy had obviously heard that one had been fired because in *The Trumpet Major* he describes how Mrs Loveday was awakened by the boom of a distant gun.[9]

If a gun were fired, there was no way of knowing on Portland whether the people in Weymouth had reacted to it. So, a Mr Daniel, described in the *Sherborne and Yeovil Mercury* as 'a gentleman of the first respectability', volunteered to ride to Weymouth with the news. He galloped his horse along the Chesil Beach where, according to Elizabeth Ham's account, shots from the French ships made stones fly about him, swam across the narrows between Portland and the mainland and made his way onto the Nothe where, hatless, breathless and soaking wet, he reported the sighting of the French fleet to Captain Nick Ingram, the Officer Commanding the Sea Fencibles.

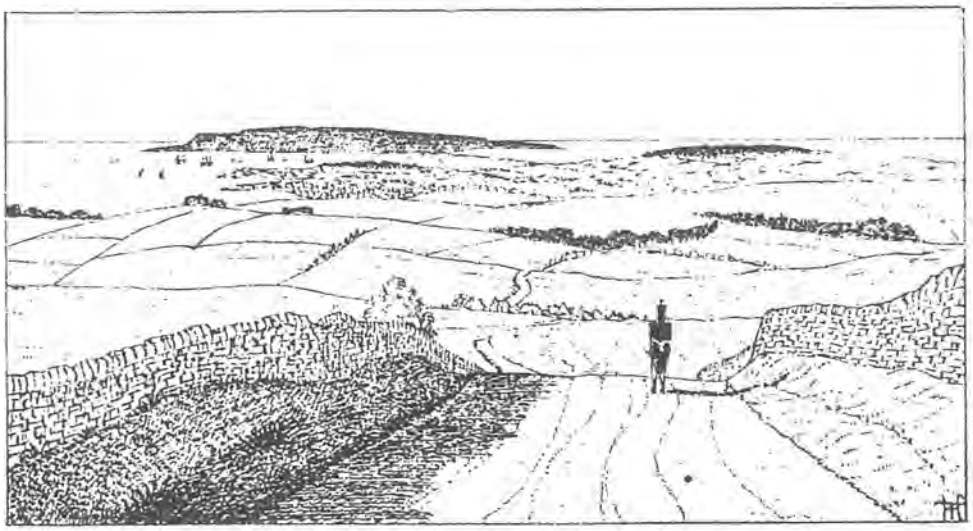
Captain Ingram's first action was to alert the garrison troops. These consisted of the Sea Fencibles, the Light Dragoon Regiment of the King's German Legion and the three duty Companies of the 3rd Battalion of the Volunteer Infantry. The Sea Fencibles were a volunteer force of seamen and fishermen, who had been excused impressment by the Royal Navy; they were responsible for coastal defence, patrolling the coastline in lightly armoured boats and manning the coastal batteries, including the six 18 pounders on the Nothe.

The 500 Light Dragoons had been stationed in Weymouth, at the recently constructed Radipole Barracks, since the beginning of the year; they were former members of the Hanoverian Army who had escaped to England following the capitulation of Hanover to the French during the summer of 1803.[10] Other mounted troops which were available for the defence of the county were the nearly 500 part-time volunteers of the Dorset Yeomanry; they were allowed to live at home but they were on stand-by to become full-time cavalrymen the moment the enemy appeared on the point of landing.

The 3rd Battalion of the Volunteer Infantry consisted of nine companies - three from Weymouth, two from Blandford and one from each of Dorchester, Puddletown, Sydling and Evershot. Since October 1803, they had been on a state of 'Permanent Pay and Duty'. This meant in practice that there were always three companies on full-time duty in Weymouth for three weeks at a time. During the last three weeks of April the three duty companies had consisted of the three companies from Weymouth itself. They were relieved on April 30 by the two companies from Blandford. The third relieving company, the Puddletown Volunteers, only reached Dorchester that evening. Early next morning, having been issued with twenty rounds of ball cartridges each, they gave three hearty cheers and set off, in quick time, for Weymouth.[11]

Thomas Hardy's grandfather was one of the Puddletown Volunteers and there is no doubt that he had heard of this march to Weymouth. Indeed, the soldier in *The Alarm* must have been based on one of these Volunteers - he may even have been Hardy's grandfather[12] - who had been given permission by his Company

1. D.C.R.O. D.FRA/X3. This document covers the period 1793-1814. An edited version is published in C.W. Thompson: *Records of the Dorset Yeomanry* (Dorchester, 1894).
2. E. Gillett: *Elizabeth Ham by herself 1783-1820* (Faber, 1945) p.64.
3. Wessex Edition (Macmillan, 1920) p.ix
4. C.W. Thompson, p.63. A similar letter was sent to George Bankes at Corfe Castle (*Trumpet Major Notebook*, p.3).
5. J. Hooper: *A Memoir of Mr John Clements, Surgeon (1813)* pp 107-109.
6. *Wessex Tales* (Wessex Edition, Macmillan, 1920) p.34.
7. p.6.
8. p.33.
9. p.220.
10. 'Thomas Hardy and the German Hussars', George Lanning, *Dorset Proceedings* 113, 1-4.
11. DCRO Photocopy 415 (Letter d. 6 July 1804, from George Boswell to George Culley).
12. In the manuscript of the poem, Hardy dates it '1804', which would tie in with the date of the invasion, but in the first edition of *Wessex Poems* he replaces that date with '1803' which ties in with the date of Hardy's father's birth. (he was baptised on August 21, 1803) Later versions of the poem bear the headnote, 'Traditional'.



Thomas Hardy's drawing of the Volunteer looking from the Ridgeway to Weymouth. From Wessex Poems and Other Verses *(1898).*

Commander - the Cunningham of the poem - to visit his pregnant wife on his way to Weymouth. As the poem explains,

> In haste he'd flown there
> To his comely wife alone there,
> While marching south hard by, to still her fears,
> For she soon would be a mother, and few messengers were known there
> In these campaigning years.[13]

Whilst the Puddletown Volunteers were making their way southwards, the Blandford Companies had come to arms. So had all the men - except one - of the three Weymouth Companies which had been stood down the previous evening. Within half-an-hour the whole garrison was on parade and a reconnaissance party of one officer and 12 privates had been sent towards Portland. This party is referred to in *The Return Of The Native* when Granfer Cantle claims to have been one of these Volunteers:

> In the year four 'twas said there wasn't a finer figure in the whole South Wessex than I, as I looked when dashing past the shop winders with the rest of the company on the day we ran out of Budmouth because it was thoughted that Boney had landed on the point.

All this military activity naturally awakened the civilian population and, not surprisingly, created a sense of near-panic. According to one eye-witness, Weymouth was soon 'entirely in a State of Confusion and Uproar.'[14] According to William Barnes, people were running around, crying, 'Bonnopart's a-comen' and 'The French be a-landed'.[15] Elizabeth Ham, dressing hurriedly and coming downstairs, found the servant girl about to flee, still grasping the broom she had been using.

There was an official plan to evacuate the coastal areas in the event of a French landing but many people decided not to wait for official instructions but to remove themselves inland as quickly as possible. Soon there was not a horse or vehicle available for hire. Elizabeth Ham recalled, for instance, how a neighbour 'came across to ask for a place for his wife, supposing we should harness old Jewel to the cart, well knowing no conveyance could be hired.'[16]

Nowhere does Hardy describe what happened within Weymouth itself. He does, however, create a vivid impression of what might have happened in the neighbouring villages. In *The Trumpet Major*, the inhabitants of Overcombe are awakened by an 'ominous sound'. The miller and his son, Bob, notice that the nearby beacon has been lit and, on going to to discover why, are assured that the French have landed (In reality, the beacons were not lit).[17] They hurriedly return home where they find the womenfolk have put on their hats and shawls, stuffed their pockets with money and small valuables and are ready to leave. The horse is put in the gig, the women are helped into the vehicle and the servant maid is given the reins and told to drive to the house of the miller's cousin in Bere Regis. As soon as the women are out of sight Bob runs to the church to collect a pike[18] whilst the miller puts on his Volunteer's uniform and awaits his company's bugle call to arms. (In reality, there was no Overcombe Company; volunteers from the local villages joined one of the Weymouth companies.)

During this scene Hardy also reveals the sense of urgency which had seized those citizens who were fleeing from the town. When Bob asks a passing butcher, whose wife has not even had time to put on her bonnet, what is happening, he is told,

> "The French have landed!"
> "Where?" shouted Bob
> "In West Bay; and all Budmouth is in uproar!" replied the voice, now faint in the distance.[19]

In *The Dynasts* Hardy describes the flight from Weymouth

> Moving figures and vehicles dot the surface of the road, all progressing in one direction , away from the coast. In the foreground the shapes appear as those of civilians, mostly on foot, but many in gigs and tradesmen's carts and on horseback. When they reach an intermediate hill some pause and look back; others enter on the next decline landwards without turning their heads.[20]

In *The Alarm*, by the time the soldier had reached the main road to Weymouth, the fleeing crowd was well past Maiden Castle:

> Leaving the byway
> And following swift the highway
> Car and Chariot met he, faring fast inland;
> "He's anchored, Soldier!" shouted some: "God save thee marching thy way,
> Th'lt front him on the strand."

Whilst all this was happening, fast-riding messengers, known as 'Expresses', were reaching various towns in the county, warning them of the impending danger. In Dorchester the news was received with suspicion. The Volunteer Infantry came to arms but refused to leave their home town. Similarly, the Dragoon Regiment of the King's German Legion which was quartered in Dorchester refused to march towards Weymouth until specifically ordered to do so by General Garth, the General Commanding the District. In Sherborne, however, according to the *Sherborne and Yeovil Mercury*, 'The three companies of Sherborne Volunteer Infantry were on their parade almost as soon as the report arrived, and the Yeomanry Cavalry registered here galloped off towards the supposed point of attack.'

Soon the alarm had become general throughout the county and

13. Wessex Edition (Macmillan, 1928) p.164.
14. C.W. Thompson, p.72.
15. *Southern Times*, July 2, 1859.
16. E. Gillett, p.64.
17. A circular from the Earl of Dorchester (26 Nov 1803) warned that beacons were not to be lit 'until you receive an Order from the Generals above or from me.' (D.C.R.O. D.52/6/137)
18. Able-bodied men who had not joined one of the Volunteer organisations were expected, on news of a French landing, to arm themselves and help in the defence of the country. For this purpose a supply of pikes was kept in every parish. Normally - but not always - they were kept in the church.
19. p. 223.
20. Wessex Edition (Macmillan, 1913) p.71.

reinforcements were making their way from every direction towards Weymouth. Hardy describes the scene in *The Dynasts*:

> Numerous companies of volunteers, in the local uniform of red with green facings, are moving coastwards in companies; as are also irregular bodies of pikemen without uniforms; while on the upper slopes of the downs towards the shore regiments of the line are visible, with cavalry and artillery, all passing over to the coast.[21]

One of the first Expresses despatched that morning was sent to Came House, near Dorchester, the home of Lieutenant Colonel Damer, the Officer Commanding the Dorset Yeomanry. Finding that the Colonel was away on business and exhausted by his gallop from Weymouth, the messenger hurriedly wrote a note which one of the Came servants conveyed to James Frampton, the Second-in-Command of the Yeomanry, at his home in Moreton. The message read,

> Came, May 1st 1804
> 1/2 past six o'clock
> Sir,
> I came here by the Recommendation of Captain Ingram who informed me that Captain Daniel had called on him and informed him that the French were landed in Portland and Captain Ingram said that our Corps ought to assist in repelling them immediately. Weymouth is entirely in a State of Confusion and Uproar. The Corps are out and every possible step taking. Excuse this scrole, written in Mr Daniel's Stable.
> I am, Sir
> Yours very obediently,
> Joseph Johns, Private, DYV.[22]

Although he was somewhat perplexed to discover that the beacon on Puddletown Heath[23], which was situated just behind his house and would normally have been the means of alerting him, had not been lit, Major Frampton immediately sent orders to the men of his troop to assemble at Poxwell, a village midway between his house and Weymouth. In *The Trumpet Major*, Poxwell House is where Yeoman Festus Derriman is staying when the alarm is sounded. Festus is portrayed as a braggart and a buffoon. This does not mean that Hardy considered all members of the Yeomanry as foolish as Festus but he certainly does not seem to have held them in high esteem. Indeed, his opinion of them appears to be summarised in the views of Anne Garland when she tells Festus that, 'The Yeomanry only seem farmers that have lost their senses.'[24]

21. p.72.
22. C.W. Thompson, p. 72.
23. The Barrow Beacons of the poem and the Rainbarrow Beacon of the novel.
24. p.57.

In the novel, Yeoman Derriman rides towards Weymouth on news of the alarm and, on his way, meets one of the King's German Legion who informs him that, 'It ist false report.' In reality, it was Major Frampton who, leaving his troop at Poxwell, rode into Weymouth to see what was happening. There he discovered that the alarm was false. The explanation he was given was that,

> The cause of the alarm sprang from the arrival of a large fishing fleet, weather bound, in Portland Roads, and the noise made by the Fleet was, in the fog, attributed by the frightened inhabitants to the arrival of the dreaded 'Bony' himself.[25]

In *The Dynasts*, Hardy explains the cause of the false alarm more poetically:

> Will not you hear
> That what was seen behind the midnight mist,
> Their oar-blades tossing twinkles to the moon,
> Was but a fleet of fishing-craft belated
> By reason of the vastness of their haul?[26]

Once it was established that the alarm was false, Expresses were sent to halt the reinforcing troops whilst the garrison troops, except for the Volunteer Infantry, were stood down. In *The Alarm*, Hardy's Volunteer returns home where he and his wife and friends sing 'Te Deum'. In reality, the events of the day were not quite over for the Volunteers. They were paraded, in open ranks, on Weymouth Esplanade. Then, in the words of the *Sherborne and Yeovil Mercury*,

> The volunteer who did not fall in to take the field was disgraced by having a rope tied round his neck, his coat turned, led by the sergeant major down and up the ranks, the band playing The Rogues March, the line hissing as he passed; after this ceremony, and turning him out of the company, the women and others buffeted and hooted him out of the town.

What a pity Thomas Hardy did not discover this report during his researches. Surely, if he had, he would have written a short story around this incident alone.[27]

25. C.W. Thompson, pp.71-71.
26. p.73.
27. Since writing this article I have come across the Hanoverian Hussars' account of the alarm, in *Journal des Leichtes Drag. (Husaren) Regts (1804-1808)*, in the Niedersüchisches Hampstaatarchiv in Hanover, ref. Hann. 38 D Nr 401. '1st May 1804, 0430, Mr Daniel came to the Barracks and assured us that the French had landed on Portland. Thereupon we got up with the greatest of speed. It was so foggy that we could not see 20 paces ahead. Approximately 5 minutes after Mr Daniel had gone, Col. Pleydell, Commanding Officer of the Dorset Volunteers in Weymouth, sent a message with a request to Lt. Col. Alten to send an officer to General Garth to inform him of the landing of the French. ...' (translated from the German)

THE WATER SUPPLY OF KINGTON MAGNA

Introduction

It is apparent that the need for a piped source of water was a perennial problem in Kington Magna before the arrival of a mains supply, because it figures largely in the Minutes of the Parish Council which date from 1894 (Dorset Record Office, PC/KIM/1 and volume held by the Parish Clerk). It is from these that the information described below has been obtained, unless otherwise stated. Following the construction of an Amenity Lake in the adjacent parish of West Stour in 1992, using the spring which had supplied part of Kington Magna and Nyland with water, it seemed appropriate to record as far as possible, the original water supply system which served the parish.

The presence of a number of springs is the result of the complicated geology, showing there to be a belt of landslip (c. 200m wide), extending along the lower part of the Corallian scarp, running north-south through the upper part of the village and obscuring the junction of the Hazelbury Bryan Formation/Oxford Clay. The former consists of an alternating sequence of sandy, patchily shelly clays and fine-grained, commonly clayey sands in two areas in Kington Magna, which account for the springs issuing from their base. There are also two small faults of about 5m displacement through the copse where one or more springs originate (Dr. C. R. Bristow, pers. comm.)

The Water System in Mitchard's Well

The actual site of the spring (Fig. 3) in the field known as Mitchard's Well is not exposed and appears to be at c. 110m OD in the north corner of a small copse which slopes from c. 115m OD to c. 100m OD, north-east/south-west, but the source may well be in the field above. (This is the correct site of the spring, not that referred to as Mitchell's Well at ST 767232 which is probably No. 4 (Fig. 3) and whose source is not in the churchyard wall as stated, Rattue 1992, 266). The spring water is piped south-west, to brick-built header tank originally fitted with a stop-cock. The water from this tank flowed south-west via successive fields to Chapel Shoot in the village (Fig. 3), (the word 'shoot' or 'shute' is used on three occasions with place names and is assumed to have the modern meaning describing 'rushing water'). It also flowed south-east to a reservoir c. 65m lower down in the copse. This large construction, set underground, roughly 3.5m across and 3m deep, was also fitted with a stop-cock to control the supply. The water was in turn piped in a south-westerly direction, feeding two cattle troughs and crossing under the River Cale, en route to the most distant farm at Higher Nyland over 3.7km away at c. 61 OD (200ft), a drop in height of at least 40m (Fig. 3). The pipe is said to lie some 0.30m below the river bed and with a depth of water today of about 0.40m, it was probably much the same a hundred years ago. The point at which the pipe went under the river on the west side can still be seen, and confirms the direction taken (Mr. Graham Hinks, pers. comm.) Sale of four fields between Kington and the River Cale describes how they were subject to the easement of water pipes across them and entitlement to the use of the drinking trough (T), but they were also liable for three-quarters of the cost of maintenance of the pipe line and trough (Catalogue of the Sale of the Sherborne Castle Estate, 1918).

The History

The dating of this system is problematical and details of events described come mostly from the Minutes of the Parish Council. Discussion as to how to improve the water supply to the village, including Nyland, began in 1895 and continued over the years until a mains supply was made available, some time after 1938.

It appears that the water pipe from Mitchard's Well to Chapel Shoot (Fig. 3) was replaced in 1896, which might suggest that the spring had been tapped some years earlier. However, in this instance the work was carried out by the local blacksmiths, Messrs. Ralph Bros., of Kington Magna at a cost of £26.14.1. (1 inch galvanised water pipe at 1/0d per yard, laid at a depth of 2 feet). Maps of the Ordnance Survey show a spring at Chapel Shoot which is confusing. It seems strange that water was being piped from above if there was already a spring available and the records describe a galvanised tank at this point. Today there is certainly water coming off the fields in wet weather, but it is not clear whether it is from a spring, from land

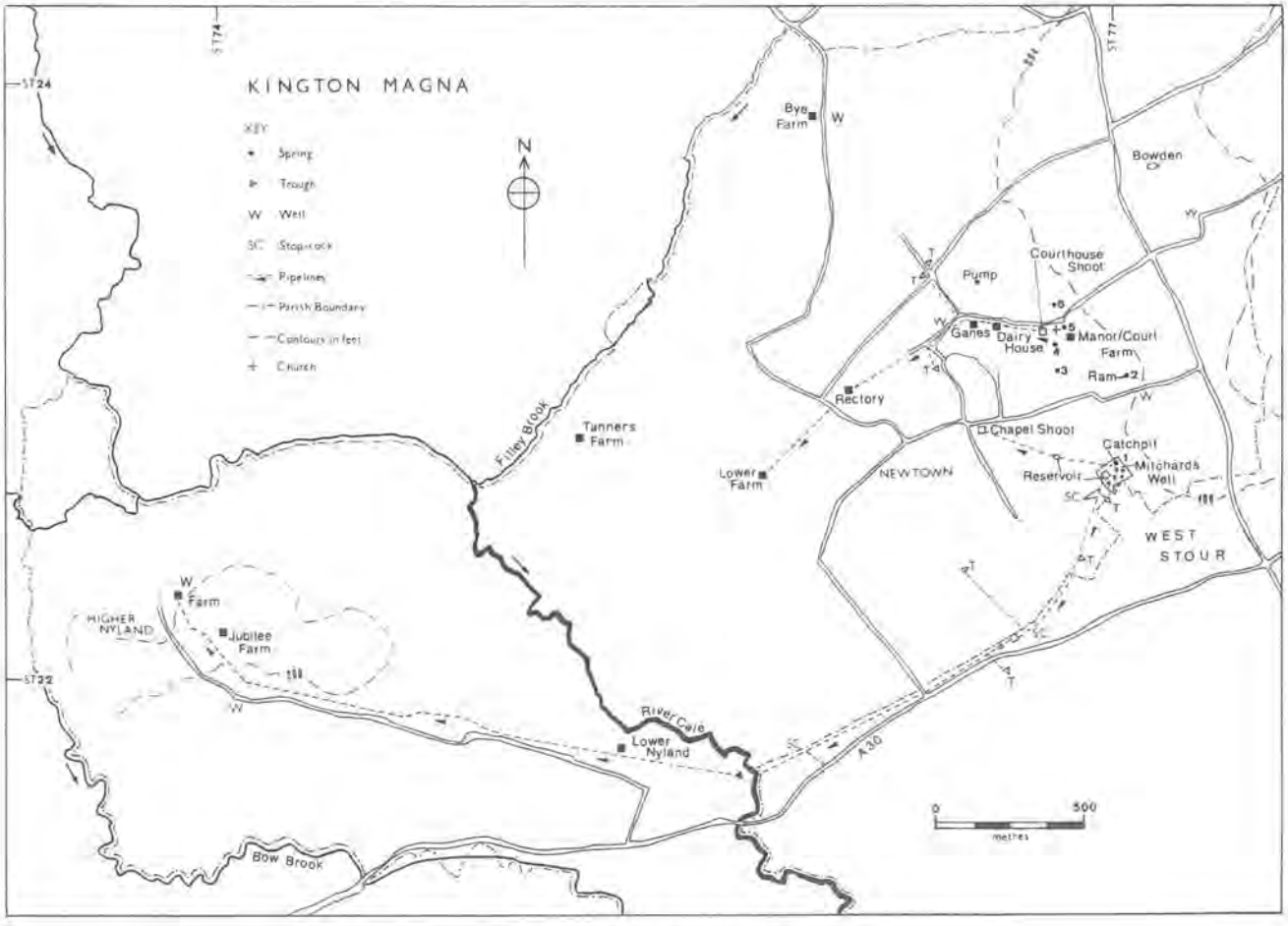


Figure 3. Kington Magna water supply system

drains or even from the old pipe. The name Curdle or Curdell Shoot is mentioned in the Minutes of the Parish Council but has not been identified and is said to be this one (Rattue 1992, 266).

A reference has been found to Mr. Digby (of Sherborne Castle), stating that his tenants at Nyland were to be supplied with water at his expense, and documents in the Sherborne Castle Archive do indeed confirm the construction of a reservoir at Mitchard's Well (described above), and the laying of the pipe to Higher Nyland between May and August 1897 is shown on a map of the Estate (Sale Plan of Lands in Sherborne Castle Estates 1919 and DRO D/COO:J 221 and 222, Sale Plan of Outlying Portion of Sherborne Castle Estate 1918 and 1919).

Prior to this, it had been discussed with Mr. Digby 'in reference to supplying his tenants at Nyland with water from Kington Hill (ie Mitchard's Well) [that] he is prepared to carry out the arrangements, provided the tenants can see their way to pay five per cent on the outlay'. They would be saved more than this amount in haulage (perhaps from the river), apart from the convenience of having a good water supply. The annual interest was to be divided among the tenants proportionately according to the rateable value of the property. Mr. Thomas Lear of Lower Nyland Farm was to pay only two and a half per cent even though the benefit was estimated at five per cent (Out-letter Books, ibid. 1897), but there is no indication of the reason for this. The scheme coincided with the rebuilding of Nyland Farm in 1897, for which the Digby Estate took out a loan (Mrs. A. Smith, pers. comm.) and was presumably part of the estate improvement which accounts for its re-naming as Jubilee Farm, being the year of Queen Victoria's Diamond Jubilee.

The higher part of the village below the church drew its water from different springs (Fig. 3, 2-6) with some dispute over ownership of the supply, and water schemes recorded in 1901 highlight this problem. Mr. Hopkins of Manor Farm explained to the Parish Council that he had 'erected a small water wheel ... at the springhead in Broad Orchard (2) to drive the water up through a 1 inch pipe into a trough to supply cattle in the field above'. He made it clear that if the cattle were supplied from a trough instead of being driven to the springhead to drink as before, it would tend to increase rather than diminish the flow of water, as the overflow from the trough would return into the same course. The meeting apparently found the explanation satisfactory.

As the base of a brick structure survives at this springhead, the present landowner, Mr. Roger Gosney, carried out considerable research in which he suggests that the water was in fact pumped up by a hydraulic ram, and this was confirmed by residents in the village who remember it being used to pump water from the stream to a trough at the rear of the Manor Farm, a distance of some 250m. The machine was apparently removed before the Manor was sold in about 1968 (Mr Jack Highnam and Mr Stan Cod, pers. comm.) As a Civil Engineer, Mr Gosney has made the following comments:-

> The difference in elevation between the Manor Farm and the stream is in excess of 20 feet and would appear to endorse the fact that a form of hydraulic ram, rather than a water wheel had to be used. On inspection, the stream was found to be badly silted up with vegetation and trees growing in the watercourse. However, the original brick head walls and chamber in which the ram had been installed could be clearly seen. Research was undertaken to determine the types of pumps in use at the turn of the century. Because of the substantial height to which the water had been pumped and the small head which would have been available owing to the height of the head wall and the stream's regime, the search was focused on a machine capable of raising a small quantity of the water passing through it, to a greater height.

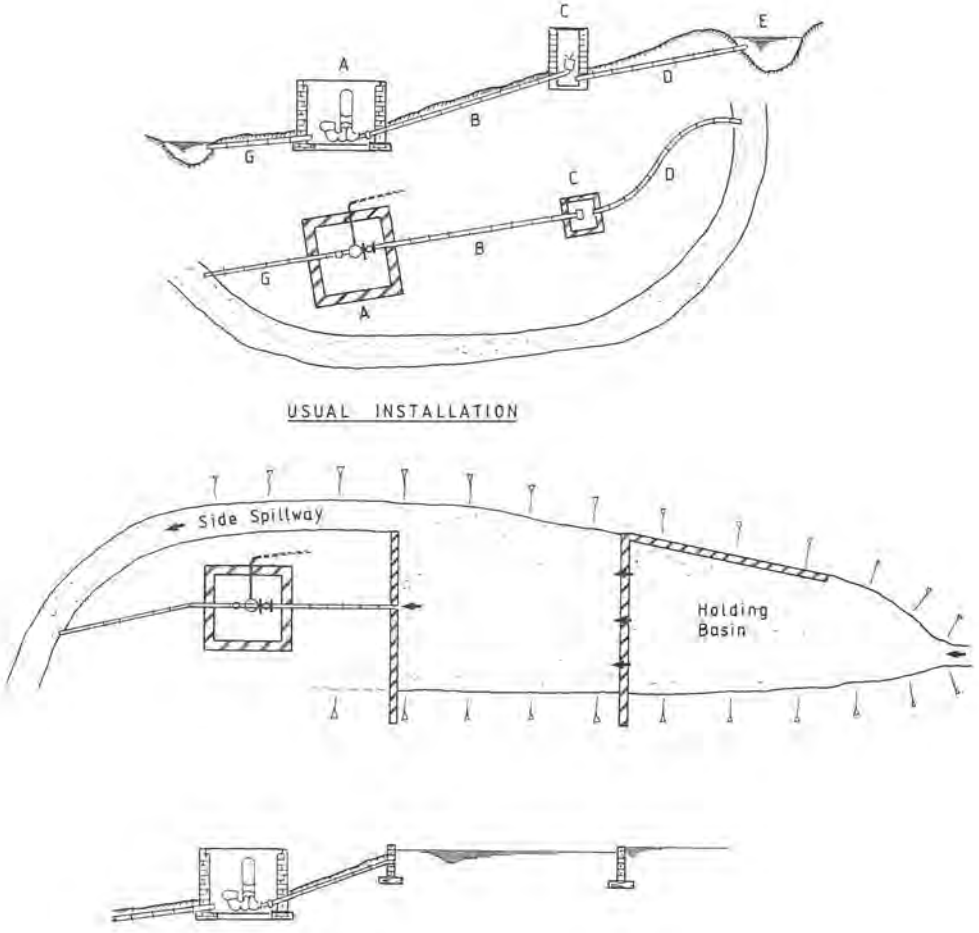


Figure 4. Kington Magna, installation of ram.

A machine known as a Hydram had been in use at that date and Sparrows Pumps of Yeovil, Somerset, confirmed that not only was this type of pump supplied from Martock, Somerset, at that time, but is also available in essentially the same form today. In fact, many rams over 100 years old are still in use. The principles of the hydraulic ram are as follows: (Fig 4).

Water is stored behind a head wall under a headHh and supplied into the chamber B which has two valves, V and V1. When no flow is taking place, valve V hangs vertically in the open position and valve V1 rests on its seating in the closed position. As water flows into the chamber B it will start to fill the chamber and water will escape through the open valve V. The pressure of the water is higher on the under side of its valve as it passes through the orifice and the valve starts to close. As it closes the pressure increases and the valve closes rapidly.

The rapid closing of the valve stops the flow of further water into the chamber and there is an immediate increase in pressure in the chamber B which causes the valve V1 to open and a portion of the water passes into the air vessel C. The water in the supply pipe and in the chamber B, after being brought to rest, recoils like a ball thrown against a wall and the pressure in the chamber is reduced allowing the water to escape once more through the valve V. The cycle is repeated, more water being forced into the air vessel C and part of the water is forced up the delivery pipe to any required height.

Following the installation of this ram, Mr. Wadman from Dairy House Farm just below the Manor Farm, intended to use the water supply (spring) in the field known as Custins (on Mr. Hopkins' land). He undertook to put in new iron piping from the junction of this spring (4) to Courthouse Shoot, where water was drawn at the roadside, at his own cost. By inserting a half-inch tap in the piping 'to dribble in his small tank' he would receive an ample supply of clean water for his use at the farm. He would also connect the spring which had its source in the Churchyard (5) with the overflow from Courthouse Shoot and he invited the Council to inspect the work when completed. It is no wonder that by 1921, the Medical Officer of Health considered the water supply dangerous (Shaftesbury Rural District Council, MH 48 519, 18.7.1921).

In Kington Magna itself, cottages of the Digby Estate were served by 'pump' (Mrs. A Smith, pers. comm.) and details from the Estate Cottage Survey, Vol. 1, of the Sherborne Castle Archives made in 1901, amplify these arrangements. Although Nyland cottages have not been located, a description of Tanners Farm (Fig. 2) is included, where the water supply for the farm came from the nearby Filley Brook and was passed through two filters before being pumped to the house (*ibid.*)

By 1912 it seems that a scheme to extend the water supply had been adopted by Shaftesbury Rural District Council under the Public Health Act of 1878, which enabled a local authority to provide a water supply (Richardson 1981, 175). This apparently involved a succession of nine standpipes from Courthouse Shoot to Lower Farm, which have been identified with the help of local residents. The pipe followed the line of the road down Church Hill and past the school to the Rectory and Lower Farm (Fig. 3).

Under the terms of the Will of Mrs. Emily Jane Hely of Kington Magna, who died in 1913, a tank with stone facing and drinking trough had been provided at the 'outfall of water near the church' (Memorial Tablet in Kington Magna Church), at Courthouse Shoot on Church Hill. An acrimonious dispute arose over this some years later between Mr. Hopkins of Manor Farm and Mr. Fear of Gane's Farm, below Dairy House Farm. In 1929, the former said that all control and custody of the supply should remain vested in the owners of the site (which he was), and this was indicated by the words "By Leave" carved on the stone facing. He called on Mr. Fear to remove his connection and, having put the matter before 'one of our best known experts' was told that he was quite within his rights to claim ownership of the water. He hoped to keep the public taps well supplied with water, provided the supply was 'not interfered with by illegal connections being made by any unauthorised person, who wished to improve their private property at other people's expense and at the most certain inconvenience of all the villagers who are on the supply'. There was some opposition to this in the village, but it is apparent that Mr. Fear lost the battle for he sank a well (Pump, Fig. 2), thirty feet deep in a field named Hanging Lond opposite the Farm. This is set within a brick housing on which a water pump worked by a petrol engine was mounted, with a concrete tank behind extending into the hillside. The housing survives but the engine has gone and it has not been possible to get access to look inside.

The Digby Estate sold Jubilee and Higher Nyland Farms (Lots 38 and 39) in 1919, with Sale Particulars showing these two properties were subject to a water rent at £3.0.0. and £1.0.0. per annum respectively (Mrs. A. Smith, pers. comm.), but it was not until 1938 that discussion took place with a view to installing a mains water supply, but even then the Parish Council did not want the Rural District Council to interfere with the Mitchard's Well supply without prior consultation.

It seems that some form of supply, presumably a partial mains supply, was provided by the District Council during the war years 1939-45, although there is no information about it. (Shaftesbury Rural District Council records other than that quoted above have not survived). There were, however, still complaints in 1946 that some people were getting no water at all and the water supply 'agreed on four years ago' was not finished at Bye Farm (admittedly this is nearly a mile outside the village). The Parish Council demanded that pipes being laid at that time should be continued through the village and many complaints had been made without any response and a letter of protest was actually sent to the Minister of Health. Even up to 1957 and 1959, farms at Nyland were described as being often without water. At last by 1960, water was apparently abundant, thought to be due to the new pumping station at Bowden above the village, reinforcing the main supply coming from artesian wells sunk in the Upper Greensand at Mere, Wiltshire.

It is perhaps ironic that in the very wet winter of 1992-1993, with all the convenience of piped water taken for granted, there have been vociferous complaints about the excessive surface water and subsequent flooding. But it does demonstrate the abundant supply available from the various springs and reflects credit on the skills of Victorian engineering in harnessing local resources.

Acknowledgements

The author is grateful to the landowners Mr. R. Gosney, Mr. G. Hinks, Mr. J. Score, Mrs. M. Speedy and Mr. and Mrs. M. Trim for allowing access to their property. She particularly thanks Mr. Simon Wingfield Digby, T.D., D.L., for permission to quote from the Sherborne Castle Estates Archive, Dr. C. R. Bristow of the British Geological Survey for details of the geology, Dr. Margaret Cox for the reference to Shaftesbury R.D.C. and Mr. R. Gosney, F.I.Struct.E., for considerable help with technical information about the ram and for providing the illustration and also Mr. William Barry, M.Sc.; reminiscences from Mr. S. Cox, Mr. J. Highnam and Mr. G. Hinks are gratefully acknowledged.

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M.S. ROSS
Shaftesbury and District Archaeological Group

GEOLOGY

IMPORTANT RECENTLY COLLECTED DINOSAURIAN REMAINS FROM THE LOWER KIMMERIDGE CLAY AT WEYMOUTH

Adrian J Brokenshire, 5 Wheatlands, Southwell, Portland DT5 2EB &
Jane B Clarke, 65 Oakmount Road, Chandler's Ford, Hants SO5 2LJ

Several dinosaurian specimens, a small claw-bone and digit, a larger claw-bone, a dermal scute and a fragment of metacarpal, have recently been recovered from the shore of the Fleet at Wyke Regis and east of Ringstead Bay. One specimen extends the known range of a dinosaur previously thought to be confined to the Cretaceous. The specimens are held in the Adrian J Brokenshire Collection (AJBC).

Small claw-bone and digit

The ungal phalanx (claw-bone) and a digit (toe-bone) (AJBC1662)(Plate 1a,b&c) came from the hind foot of an Ornithomimidae, a small, ostrich-like dinosaur (David Norman Pers. Comm. 1993). They were recovered on separate occasions from the shore of Portland Harbour at Wyke Regis, washed out of the silty clays above the Black Head Stone Band in the Cymodoce Zone of the Lower Kimmeridge Clay, Upper Jurassic (Wignall 1990).

The ungal phalanx is 37mm long (external arc) and 33mm long (internal arc) from the tip to the base and has base dimensions of 15mm x 10mm. Prominant grooves run down each side of the bone which would have accommodated the horny sheath of the claw. Flanges beneath the grooves have broken off, but their former position is clearly visible. The bone is brown, the tip is missing and there has been slight abrasion due to weathering around the articulation surface.

The digit, probably not the bone adjacent to the claw-bone (Eric Buffetaut pers. comm. 1993), is 35mm long, the distal articulation is 16mm x 10mm, the ventral articulation is 19mm x 11mm and the waist is approximately 13mm diameter. The bone is dark brown and the articulation surfaces have suffered slight weathering.

When this specimen was shown to delegates at the 41st Symposium of Vertebrate Palaeontology and Comparative Anatomy in September 1993, it caused excitement amongst dinosaur workers, as the earliest record of Ornithomimidae is from the Lower Cretaceous (Eric Buffetaut pers. comm. 1993), so this find is the earliest record of Ornithomimidae to date.

Larger claw-bone

Another claw-bone of a theropod (AJBC3573), larger than the one

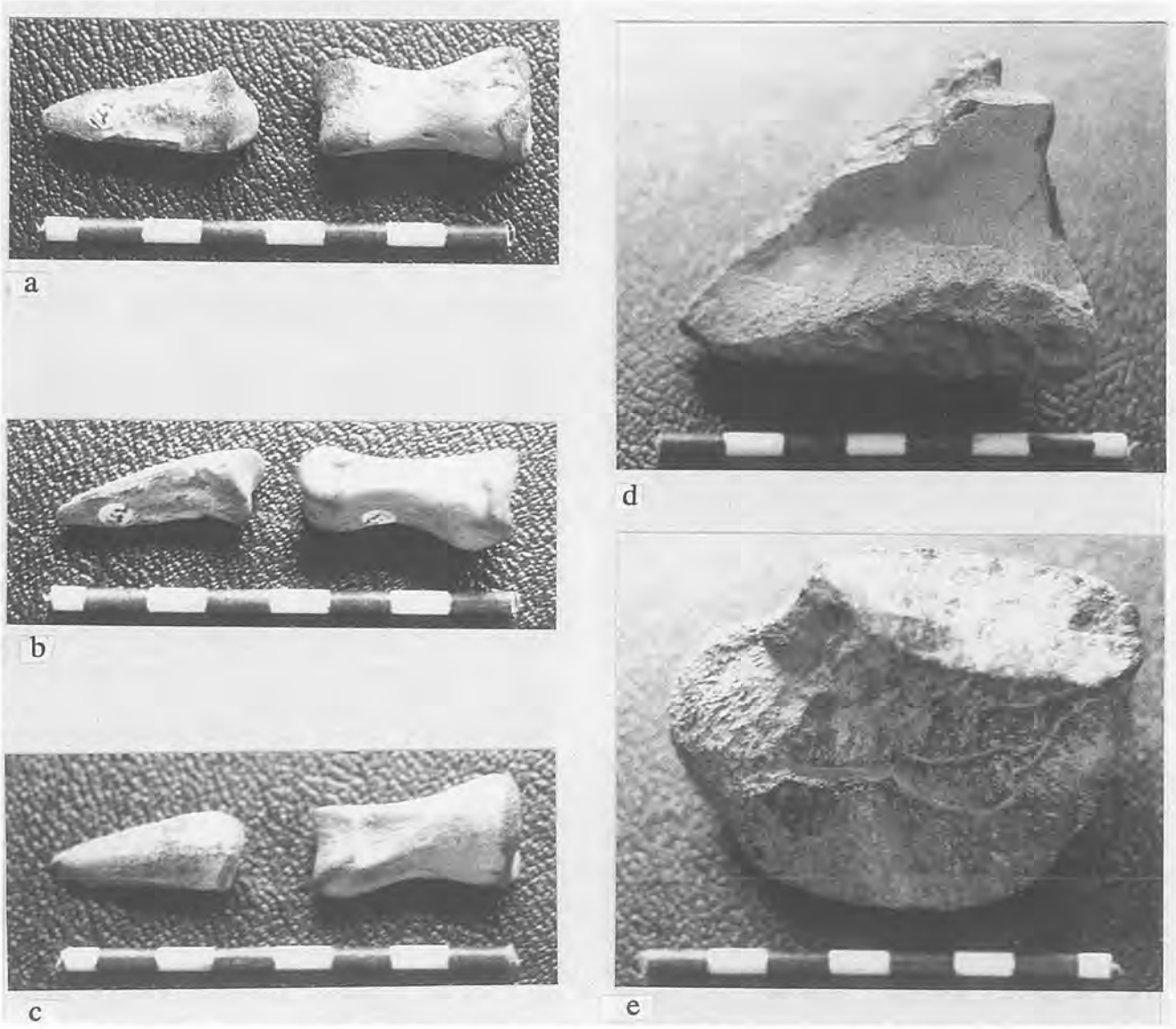


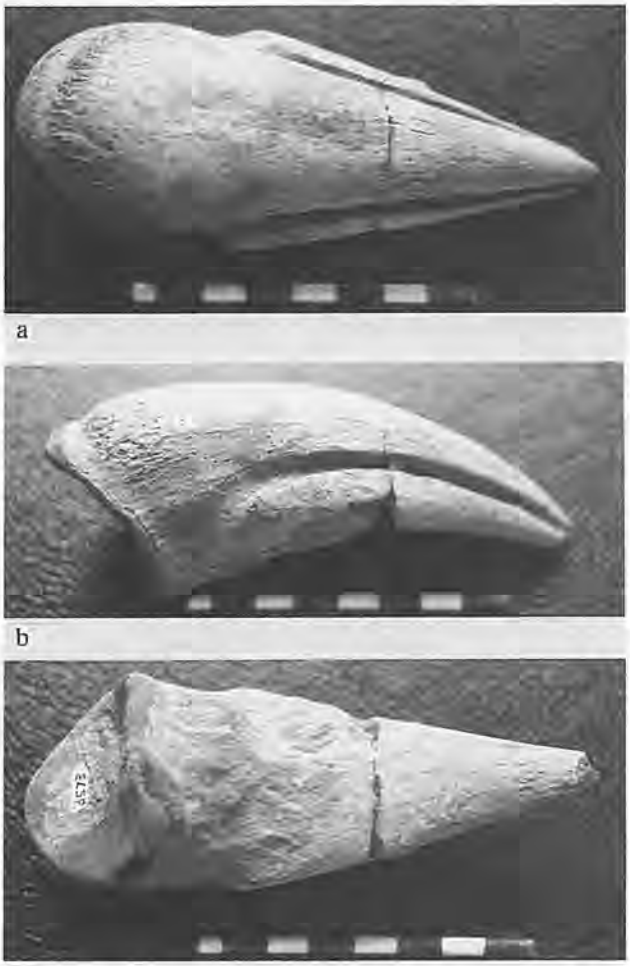
Plate 1a-c. Claw-bone and toe-bone of Ornithomimidae. a, top elevation. b, side elevation. c, lower elevation (AJBC 1662). Plate 1d. Fragment of stegosaur metacarpal (AJBC4137).Plate 1e. Stegosaur dermal scute (AJBC4138). Scale bar in cms.

described above, has been recovered from the shore of the Fleet at Wyke Regis, complementing the previous discovery by Peter Langham of a partial theropod from the Kimmeridge Clay, at present undergoing study at Cambridge University.

The specimen (Plate 2a-c) was first identified as the distal bone from a digit from a megalosaurid foot (Beverly Halstead pers. comm.) but a more recent opinion places it as an ungal phalanx (claw-bone) of the 3rd toe of the pes (hind foot) of an unidentified theropod (carniverous dinosaur) (Norman pers. comm. 1993). The claw-bone is 138mm long (external arc) and 100mm long (internal arc) from the tip to the base and has a base diameter of 44mm. There is a prominent groove running from the tip to the base which would have accommodated the horny sheath of the claw. The centre of the bone is dark brown but the outer cortical layer has bleached and the periosteal surface is missing.

The specimen was found in two pieces, collected a week apart, on the beach at Wyke Regis after violent storms had caused slumping of the low cliffs followed by tidal erosion. The small amount of matrix adhering to the base of the claw, a fine-grained, clayey siltstone, indicates it comes from a horizon in the Cymodoce Zone between the Wyke Siltstone Band and the Black Head Siltstone, nearer the former than the latter. The bone had previously weathered in oxic conditions causing the removal of the periosteal surface, but surprisingly, little obvious weathering occurred during its subsequent transportation. It is possible that the bone, being at the extremity of a limb, had become detached from the rest of the skeleton and thus carried away prior to deposition. There is no evidence of modern weathering; the indications being that the two pieces were released from the sediment by the previous tide, the proximal end first and the distal end a week later. There is no indication that further Megalosaurid bones are present. The bioturbated horizon also contains lignite and a poorly preserved but varied invertebrate fauna. These sediments have been interpreted as being storm deposits on a shelf, or alternatively, representative of a distal barrier bar inlet deposit (Brookfield 1978).

Previously recorded dinosaurian remains from this horizon, apart from the Langham specimen, are confined to three specimens; a humerus from *Ornithopsis humerocristatus* (Hulke) and an imperfect dorsal right pubis from *Ornithopsis leedsi*, both sauropods (Delair 1958) and a megalosaurid jawbone (Powell 1987).



a

b

c

Plate 2a-c. Carnosaur claw-bone. a, top elevation. b, side elevation. c, lower elevation. Scale bar in cms.

Dermal scute and fragment of metacarple

The dermal scute (AJBC4138) (Plate 1e) and fragment of metacarple (AJBC4137) (Plate 1d) both come from a Stegosaur, possibly *Lexorisaurus* or *Keutrosaurus* (Martill pers. comm. 1993), both known from the Oxford Clay. The dermal scute was recovered from the *Pavlovia* Zone in the Upper Kimmeridge Clay at the east end of Ringstead Bay, near Weymouth, while the metacarpal fragment was found on the shore of the Fleet near Ferrybridge from the silty clays above the Black Head Stone Band in the Cymodoce Zone, Lower Kimmeridge Clay.

Discussion

Dinosaurian remains are rare from the Kimmeridge Clay as these clays are essentially marine deposits, however finds like these reported above indicate that carnosaurs were living on the adjacent landmass at this time. The Ornithomimidae is of particular importance as it extends the range of this family of dinosaurs and has contributed to a review of British theropods now being undertaken at Cambridge University.

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OCCURRENCE OF FORAMINIFERA IN THE PORTLAND STONE FORMATION (PORTLANDIAN, UPPER JURASSIC) OF HOLWORTH HOUSE, RINGSTEAD, DORSET

J. D. Radley
Museum of Isle of Wight Geology, High Street, Sandown, Isle of Wight PO36 8AF.

Foraminiferal microfaunas are poorly documented from the late Jurassic Portland Beds of Dorset. This appears to reflect the difficulty of sampling the indurated, non-argillaceous lithologies which dominate the sequence, rather than genuine absence of taxa. This problem applies especially to the well-cemented and diagenetically-altered carbonates of the Portland Stone Formation (*okusensis* up to *anguiformis* or possibly *oppressus* Zone, see Wimbledon 1980 for Portlandian lithostratigraphic nomenclature and ammonite biozonation).

Recently however, Copestake (1987) and Shipp (1989) recorded low diversity foraminiferal microfaunas from the lower part of the Portland Sand (*albani* Zone) and the basal Portland Stone (*okusensis* Zone), and Radley (1990) noted encrusting foraminifera (*Nubeculinella*) in the Roach Bed (uppermost Portland Stone, *anguiformis* or possibly up to *oppressus* Zone).

The highest strata of the Portland Stone Formation at Holworth House, Ringstead (SY 764814) are relatively soft and fractured. Consequently, the author has recently sampled the topmost 1.5 m of the Portland Stone at this locality. This interval is broadly equivalent to beds 26 and 27 of Arkell (1935), and was correlated with the uppermost part of the *anguiformis* Zone or basal part of the *oppressus* Zone by Wimbledon (1980). The strata comprise buff-coloured, crumbly, coarse micritic bioclastic limestone, in which aragonitic fossils (bivalves, gastropods and comminuted shell debris) have been dissolved away.

Washed residues obtained from the sample contain occasional foraminifera, together with fragmentary gastropod moulds, minute echinoid spines and sporadic ostracods. The foraminifera are identified as *Lenticulina muensteri*(Roemer), which is probably the commonest British Upper Jurassic lagenine species (Shipp 1989). This new record extends the British onshore last appearance of this taxon from the *okusensis* Zone (Shipp 1989), up to the *anguiformis* or possibly *oppressus* Zone of the Portlandian Stage.

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FEEDING HABITS OF *CATURUS* AND NEW EVIDENCE OF COLEOID DISTRIBUTION FROM THE KIMMERIDGE CLAY OF DORSET.

Steve M Etches, 'Ashfield', Kimmeridge, Wareham, Dorset, BH20 2P3
Jane B Clarke, 65 Oakmount Road, Chandler's Ford, Hants SO5 2LJ

Introduction

A specimen of the fish *Caturus* sp has been recovered with a coleoid inksac lodged in its gullet. Specimens of coleoids have also been recovered from horizons previously thought to be devoid of these taxa. The specimens are held in the Steve Etches Kimmeridge Collection (SEKC).

Horizon

The *Caturus* sp., (SEKC.K1190) was recovered from a loose block of a laminated coccolith-rich shale approximately 2.5m below the base of the White Stone Band in Hudlestoni Zone, Upper Kimmeridge Clay (Cox & Gallois 1981) on the eastern side of Rope Lake Head, Encombe, Dorset (OS Grid Ref SY926775). *Caturus* (Fig. 1a) was a pelagic fish, 22cm - 600cm long and common throughout the seas in Kimmeridgian times.

Specimen

The specimen is a partial, slightly waterworn skeleton of *Caturus* sp (Plate 3a), consisting of the posterior part of the skull and the trunk to the base of the tail; dorsal, pelvic and pectoral fins are present. Thin, enamel scales cover the trunk through which the ribs can be discerned and the line of the digestive tract is clearly visible. Part of the gill cover has been removed during preparation and a coleoid inksac completely fills the gullet area, apparently blocking the gills. The gut cavity contains a coprolite.

Coleoid distribution

Traditionally belemnites were thought to be absent from the Upper Kimmeridge Clay in England. Cope (1967) notes that nautiloids and belemnites are absent from the Upper Kimmeridge Clay, whilst Wignall (1990) notes that belemnites occur in the basal Baylei Zone of the Lower Kimmeridge Clay but "above this horizon belemnites are absent from England and from the contemporary near-shore sediments of the Boulonnais".

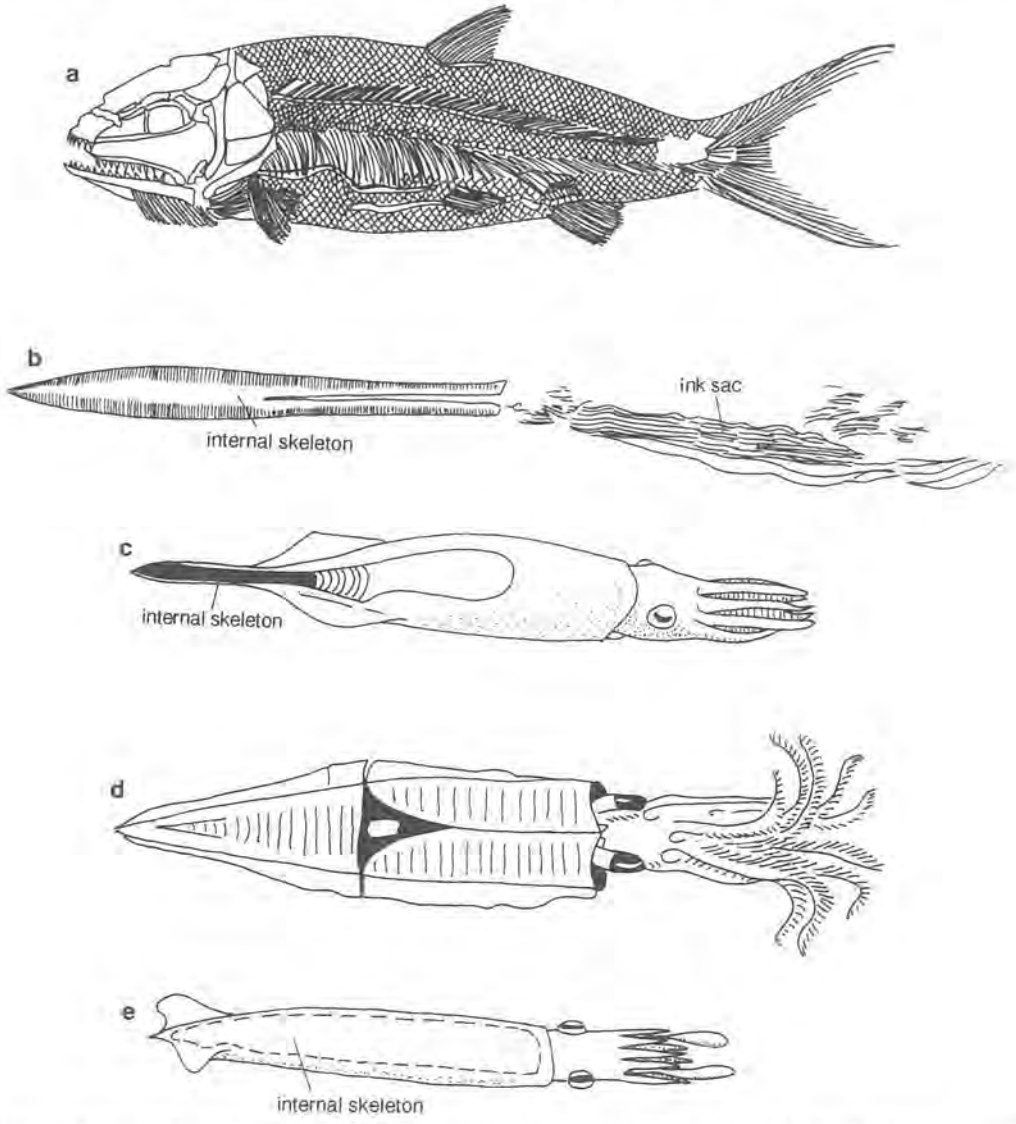

Figure 1a, Caturus., Upper Jurassic, Cerin, Ain, France, 70% natural size (after von Zittel 1932); b, sketch of belemnite Bibolites hastatus *from Solnhofen, 176mm long, showing position of ink sac in relation to internal skeleton (after Barthel et. al. 1990); c, sketch of belemnite (176mm long) showing position of internal skeleton (after Barthel et.al. 1990); d, partial reconstruction of* Belemnoteuthis antiqua,. *(approx 150mm long) (after von Zittel 1932); e, sketch of squid showing position of internal skeleton (after Barthel et.al. 1990).*

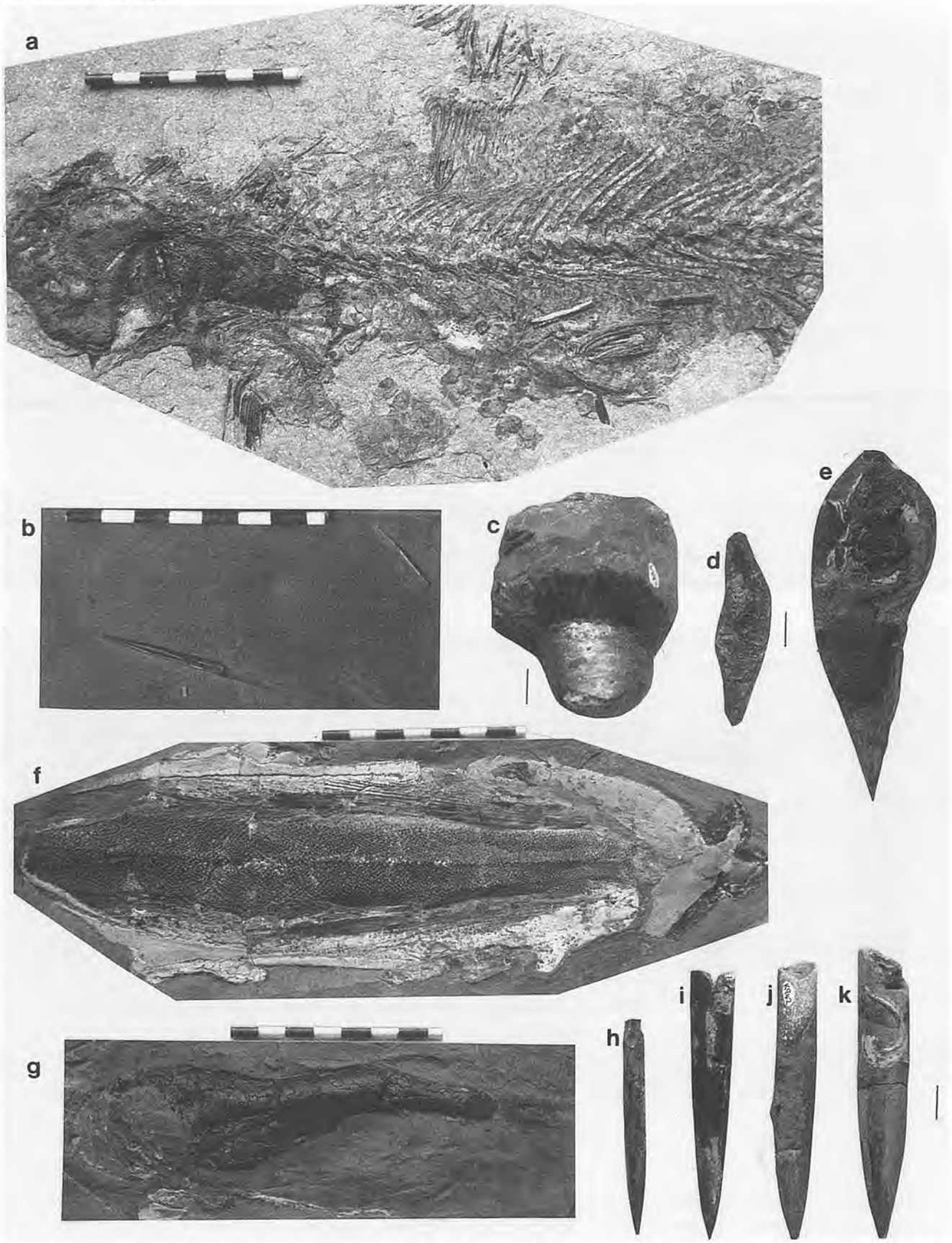

Plate 3 Caturus *sp. (SEKC.K1190) from the Hudlestone Zone, Rope Lake Head, Encombe, with an ink sac filling the gullet and a coprolite in the lower gut; b, belemnite guards (SEKC.K256) from the Wheatleyensis Zone, Clavells Hard, Kimmeridge. c, large uncrushed belemnite phragmacone (SEKC.K889) from the Wheatleyensis Zone, Clavells Hard, Kimmeridge; d,* Belemnoteuthis antiqua *(SEKC.K495) Pallasiodes Zone, Egmmont Bight, Encombe; e,* Belemnoteuthis antiqua *(SECK.K964) from the Hudlestoni Zone, Rope Lake Head, Encombe; f,* Trachyteuthis. *(SEKC.K500) Bed 28-30 (Cope 1967), Wheatleyensis Zone, Clavells Hard, Kimmeridge; g,* Trachyteuthis *ink sac (SEKC.K433) Wheatleyensis Zone, Clavells Hard, Kimmeridge; h, belemnite (SEKC.K1004) from the Eudoxus Zone, Hobarrow Bay; i, belemnite (SEKC.K126) from the Eudoxus Zone, Hobarrow Bay; j, belemnite (SEKC.K942) from the Cymodoce Zone, Ringstead Bay. k, belemnite (SEKC.K871) from the Cymodoce Zone, Ringstead Bay. Scale bar 1cm.*

Belemnite specimens (Fig1 b,c) collected by SME from the Lower Kimmeridge Clay came from the Cymdoce Zone at Ringstead Bay (SEKC.K942 & SEKC.K871 - Plate 3 j,k) and from the Eudoxus Zone at Hobarrow Bay (SEKC.K126 & SEKC.K1004 - Plate 3, h, i). The Upper Kimmeridge Clay has yielded specimens from the Wheatleyensis Zone, both east and west of Clavells Hard, two belemnite guards (SEKC.K256 - Plate 3b) and a very large uncrushed belemnite phragmacone (SEKC.K889 - Plate 3c). The Pavlova Rotunda Zone at Chapmans Pool, contains a moderate number of belemnites, confined to specific horizons. Belemnites have even been found in the Pectinatus Zone. SME has found that coleoids such as *Belemnoteuthis antiqua* (Fig. 1d,e) are reasonably common through the whole of the Kimmeridge Clay in Dorset; specimens of the vampire squid *Trachyteuthis* (Plate 3,f,g, Fig. 1e) are scarce but also occur throughout the sequence.

It is apparent that the previous assumptions for absence of belemnites in the Upper Kimmeridge Clay reflected collecting practices. Concentrated, regular searching by SME is rectifying this deficiency.

Discussion

Sizes of inksacs from Kimmeridge Clay coleoids vary enormously; those of the belemnoteuthid *antiqua* (K495 & K964) are small, between 9mm to 19mm long (Plate 3d, e Fig. 1d) whilst that of *Trachyteuthis* is much larger, measuring 150mm (Plate 3 f, g).

The visible part of the inksac in the *Caturus* gullet is 82mm long and 36mm wide (Plate 3,a). When compared with the specimens described above, there is a good size correlation with the inksac of *Trachyteuthis* (Plate 3,g). The position of the inksac gives rise to several possibilities: did the *Caturus* swallow the inksac of a disarticulated *Trachyteuthis* then found the mouthful had stuck in its throat sealing off the gills? did it swallow the inksac successfully only to have the mouthful forced back up its gullet by gastric gasses (Martill pers. comm.) or did the fish die suddenly from alternative reasons soon after swallowing its last meal? It has previously been noted that *Caturus* swallowed its prey whole; one specimen apparently dying whilst in the act of swallowing a fish (Moody 1977).

Conclusion

It can be concluded that *Caturus* sometimes fed on comparatively large prey which it attempted to swallow whole, apparently with occasional fatal results. Evidence of this kind is relatively rare but such examples contribute to recorded information regarding the feeding habits of 150Ma pelagic fishes.

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THE FAUNA AND FLORA OF THE SUNNYDOWN FARM FOOTPRINT SITE AND ASSOCIATED SITES: PURBECK LIMESTONE FORMATION, DORSET.

P.C. Ensom[1], S.E. Evans[2], J.E. Francis[3], Z. Kielan-Jaworowska[4] and A.R. Milner[5].

1. Yorkshire Museum, York, YO1 2DR.
2. Department of Anatomy and Developmental Biology (Rockefeller Building), University College London, WC1E 6BT
3. Department of Earth Sciences, University of Leeds, Leeds, LS2 9JT.
4. Palaeontologisk Museum, Universitetet i Oslo, Sars Gate 1, NO562, Oslo 5, Norway.
5. Department of Biology, Birkbeck College, University of London, Malet Street, London, WC1E 7HX.

A report on the above site within the Purbeck Limestone Formation previously appeared in these *Proceedings*. (Ensom 1988). Since then work has continued on the residues obtained from the bulk clay samples taken and accounts have been published, on aspects of the microvertebrate fauna obtained by Ensom, Evans and Milner (1991) and Kielan-Jaworowska and Ensom (1991, 1992, 1994). The residues remain the centre of attention.

Amphibians have been recovered from the Dorset Purbeck Limestone Formation for the first time. New multituberculate mammals have been described and previously described material reassessed; representatives of the Paulchoffatoidea have been recognized for the first time in these strata.

Samples were taken from two horizons within the Cherty Freshwater Member. These are an upper horizon, which is equated with DB 102 (Clements 1993) and a lower horizon below the 'New Vein' (=DB 101) which is tentatively correlated with the DB 98 which also yielded microvertebrates.

What follows is a list of the invertebrates, vertebrates, trace fossils and plants so far recorded from the upper horizon within the Cherty Freshwater Member at Sunnydown Farm (SY 9822 7880), Suttle's Quarry (SZ 020 777), Lovell's Quarry (SY 980 790) and Durlston Bay (SZ 035 780).

Some records of the lower horizon are recorded in this list and are clearly indicated.

MOLLUSCA
- Neomiodontidae
  - *Neomiodon* sp.
- Neritidae
  - *Theodoxus fisheri*
- Valvatidae
  - *Valvata helicelloides*
- Ellobiidae
  - *Ellobium* sp.
  - *Ptychostylus harpaeformis*
  - *P. philippii*
- Physidae
  - *Physa* sp.
- Hydrobiidae
  - *Hydrobia* sp.

ARTHROPODA
- OSTRACODA
- INSECTA
  - Blattodea (Cockroach).
  - Other arthropod (including ?insect) fragments - phosphatised (Mainly from the lower horizon).

VERTEBRATA
- CHONDRICHTHYES
  - 'Hybodus' sp. teeth and dermal tubercles
- OSTEICHTHYES
  - Lepidotes sp. teeth
  - ?*Stephanodus* sp. teeth
  - Undet. species represented by teeth scales and otoliths.
- AMPHIBIA
  - ANURA
    - Discoglossidae
  - CAUDATA
    - Batrachosauroididae undetermined material.
    - Second undetermined salamander.
  - LISSAMPHIBIA INDET.
    - *Albanerpeton* sp.
- REPTILIA
  - CHELONIA
    - Cryptodira
      - Tretosternon sp.
      - ?*Pleurosternon* sp.
  - LEPIDOSAURIA
    - Squamata
      - Scincomorpha
        - Paramacellodidae
          - *Paramacellodus* sp.
          - *Becklesius* sp.
          - *Pseudosaurillus* sp.
      - Anguimorpha
        - Dorsetisauridae
          - *Dorsetisaurus* sp.
      - *Incertae sedis*
        - *Durotrigia* sp.
    - Sphenodontida
      - ?*Homoeosaurus* sp.

ARCHOSAURIA
Crocodilia
Theriosuchus sp.
Bernissartia sp.
Goniopholis sp.
Pterosauria
Unidentified teeth
Ornithischia
?Thyreophora
Echinodon sp.
Saurischia
Theropoda
cf. *"Nuthetes"* (?=*Megalosaurus*)
MAMMALIA
TRICONODONTA
DOCODONTA
Peraiocynodon sp. (?=*Docodon* sp.)
MULTITUBERCULATA
Paulchoffatoidea
?Paulchoffatiidae
Incertae sedis
Gerhardodon purbeckensis
cf. *G. purbeckensis*
Sunnyodon notleyi
cf. *S. notleyi*
Plagiaulacoidea
Plagiaulacidae
Plagiaulacinae
Bolodon osborni
Bolodon minor
cf. *B. minor*
Plagiaulacinae gen. et sp. indet. a. I2.
Plagiaulacinae gen. et sp. indet. b. I2.
?Plagiaulacinae gen. et sp. indet. I3
?Plagiaulacinae gen. et sp. indet. ?upper premolar or canine
Albionbaataridae.
Albionbaatar denisae
Plagiaulacoidea fam. gen. et sp. indet.*
Plagiaulaoidea fam. gen. et sp. indet.*
*May be counterpart to *A. denisae*
SYMMETRODONTA
Spalacotheriidae
Spalacotherium sp.
EUPANTOTHERIA
Peramuridae
Peramus sp. (Lower horizon).
Dryolestidae
Amblotherium sp.
?*Peraspalax* sp.
Phascolestes sp.

TRACE FOSSILS
Burrows. cf. *Thalassinoides*
Footprints:
Sauropod
Tridactyl footprint type 1. 'large' carnosaur
Tridactyl footprint type 2. 'small' carnosaur
Tridactyl footprint type 3. ?iguanodontid
Coprolites - especially abundant in lower horizon.
Rootlets penetrating down into limestone below the lower horizon.

PLANTS
Charophytes. Leaf fragments, oogonia, gyrogonites etc.
?*Equisetum* cone & stem (silicified +).
Conifer shoots (silicified +) cf. *Cupressinocladus* sp.
Conifer shoots (woody) cf. *Cupressinocladus* sp. or contamination?
Leaf cuticles cf. *Cupressinocladus* or *Brachyphyllum*.
?*Araucaria* sp. ?male cone
Unidentified silicified stems +.

+ Silicified material from this horizon may be derived

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KULINDRICHNUS: AN HITHERTO UNRECORDED TRACE FOSSIL FROM THE KIMMERIDGE CLAY, KIMMERIDGE, DORSET.

P.C. Ensom, Yorkshire Museum, York. YO1 2DR.

In March 1988 a cylindrical rock was brought to the Museum for identification. The specimen had been collected by Mr G. Morgan from the south end of Broadbench from freshly broken cliff fall material. The specimen is likely to have originated in the *autissiodorensis* zone above the Flats Stone Band (S. Etches pers. comm.). Similar specimens have been noticed by SE in the eastern corner of Brandy Bay which would have been from the same zone. The specimen was composed of a dark grey ?calcereous mudstone, and was slightly inflated at one end.

At the time the specimen was thought most likely to be a trace fossil, possibly a burrow. The writer was recently shown specimens of the Liassic trace fossil *Kulindrichnus* from the area around Scunthorpe and was immediately struck by the strong similarity between these and the specimen from Kimmeridge. The latter specimen had been deposited for the Museum Collections but unfortunately cannot be located at present. The size of the specimen is thought by the writer, who dealt with the original enquiry, to lie within the maximum dimensions of *Kulindrichnus* (260mm and 180mm, height and diameter respectively) given by Doughty (1965).

The Scunthorpe specimens were part of a collection studied by Doughty (1965) who discussed their likely origin. Hallam (1960) had suggested that cerianthid sea-anemones were candidates for producing burrows or depressions on the sea floor. Doughty presents an alternative with the 'vase' and 'ear' sponges (Calcaea and Desmospongia) which are similar in shape, and have a high phosphorous content. Doughty points to a possible connection between this and the presence of phosphatised rock surrounding these trace fossils.

The stratigraphic range given for these fossils is the Lower Jurassic of north-west Europe. (Hallam 1960, Doughty 1965, Häntzschel 1975). If it is confirmed that the specimen from Kimmeridge Bay is *Kulindrichnus*, the range for this particular dwelling trace (Domichnia) has been significantly extended.

Acknowledgements: My thanks to Simon Knell who drew my attention to the Scunthorpe specimens, to Kate Hebditch who has attempted to locate the specimen at Dorset County Museum, and finally to Steve Etches for suggesting the likely source of the specimen.

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A NEW VERTEBRATE TRACKWAY FROM THE INTERMARINE MEMBER, PURBECK LIMESTONE FORMATION, DORSET

P.C. Ensom, Yorshire Museum, York, YO1 2DR.

In 1992 W.T. Haysom recovered slabs of the Downs Vein *(fide* WTH) (*c.* DB 113 of Clements 1993 which occurs near the base of the Intermarine Member) upon which there are what appear to be tracks made by a small vertebrate. They came from an excavation at NGR SY 979 792, just south of Downshay Wood (WTH pers. com.). WTH writes as follows: 'The Downsvein stone is about 3' 0" thick [= c.0.92m], 10" [0.255m] up from the base are 2 very flat cleavage planes about 1" [0.025m] apart. The prints occur on this plane.' WTH noted the presence of a linear series of faint indentations and associated fills on opposing sides of this bedding plane. He drew them to the attention of members of the Geologists' Association who visited his quarry during a field trip in August 1992.

The record which follows is based on a brief examination of the accessible slabs made by the writer with the kind permission of WTH. Since then the cast upon which figure 2 is based and the mould (ie the counterpart of the cast examined and which is the basis of figure 3) of the second specimen have been generously donated to the Dorset County Museum where they are registered as DORCM G 11045 and 11046 respectively.

The two specimens (figs 2 and 3), consisting of part and counterpart in each case, had been recovered from the same horizon and from within an area of not more than *c.* 15m (WTH pers. comm.). The rock is a fine grained ostracod/shell microsparite. For both specimens, observations were made on the casts though it should be noted that the figures have had the images reversed to show them as if they were moulds.

In one specimen (fig 2) there were two parallel rows of offset, irregular but generally oval, bulges with a relief of 3 - 4mm. They were preserved over a distance of 1.03m. The length of these features ranged from 50 - 80mm and their width 30-50mm. In several cases there appeared to be a small crescent shaped bulge consistently occuring at the same end (fig 2) in almost immediate proximity to the main feature. The measurements of length given above include this feature which, taken in isolation, had a length of 25mm measured at right angles to its width which was in one case only greater than the width of the associated feature, 30 - 40mm. The distance between the median lines of these two rows was *c.* 100mm. The most likely explanation to account for these features is a trackway left by a vertebrate. No evidence of drag marks produced by either the feet or body were detected.

The second specimen (fig 3) appeared very similar to that described above. The following was recorded on site: 'Very similar [to DORCM G 11045] but many more of them [prints], ie closely spaced *c.* 5cm between prints [and] *c.* 9/10cm between prints at another point. Seen for 1.36m. Slight curve. Very difficult to distinguish detail in the very even light. 10 - 12cm from outer edge to outer edge [of tracks]'. This latter measurement is very similar to that of DORCM G 11045.

The presence of the small crescent shaped bulges immediately adjacent to several of the larger bulges of DORCM G 11045 (fig 2) is reminiscent of the sauropod trackway recorded at Sunnydown Farm (Ensom 1988) and are what would be expected of a quadruped. The prints in each line are offset in keeping with this suggestion. The trackway in figure 3 is less easily interpreted, though the way in which the lines of prints remain more-or-less equidistant while describing an arc does support a quadruped as producer. The trackway in fig. 2 has an average stride length of 155mm (range 130-175mm) whereas that in fig. 3 appeared to be much less. This may be the result of my inability to

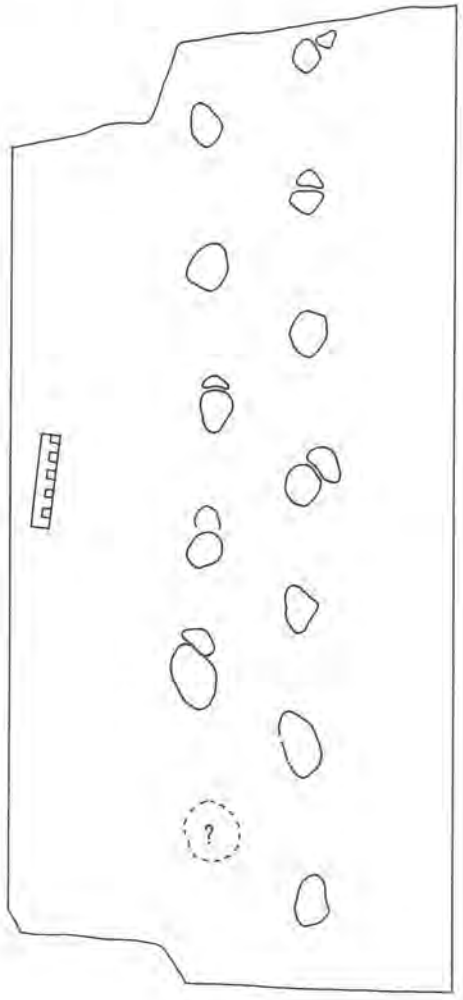

Figure 2 Trackway drawn from transparency of slab with casts. The image has been reversed to show track as made. Scale bar 10cm. Transparency taken normal to surface. DORCM G 11045.

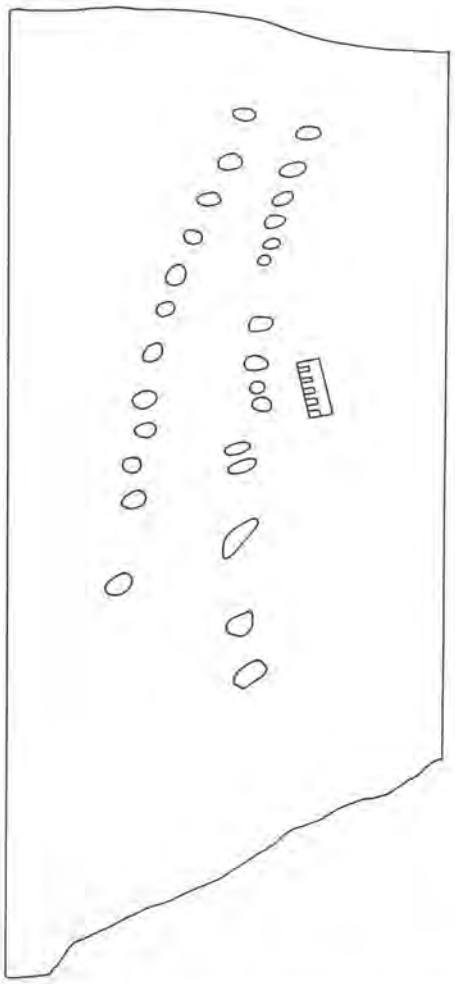

Figure 3. Trackway drawn from transparency of slab with casts and reversed to show track as made. Scale bar 10cm. NB. Transparency is oblique view of surface with consequent distortion. The counterpart of the specimen upon which this figure is based is DORCM G 11046.

distinguish between manus and pes prints. On the basis of our knowledge of vertebrate faunas, a reptile is considered to be the most likely candidate, and the size of the prints points to either a small or juvenile animal.

Acknowledgements: My considerable thanks to Trev Haysom who kindly gave access to the specimens, deposited examples of each in the Dorset County Museum and who has generously shared his own knowledge of these strata for the benefit of this report. I am also grateful to Ms Kate Hebditch for providing information concerning the specimens now deposited at the DORCM.

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CALCITE BLOCKS NEAR WINTERBOURNE STICKLAND, DORSET.

P.C. Ensom, Yorkshire Museum, York. YO1 2DR.

A recently constructed rockery at Hedge End Farm, north of Winterborne Stickland, contains many blocks of coarse crystalline calcite. They have been collected from field surfaces in the area immediately to the west of the farm. In addition a loose block with maximum dimensions of 2.57m x 1.2m x 0.88m and weighing in excess of 2 tonnes had been found while clearing woodland damaged by the storms of 1989/1990 at ST 795 064, approximately 3.5km west of the farm. The block had subsequently been dragged down the valley east of the point of discovery.

This exceptionally large specimen (Plate 4, 1-3), and the smaller blocks in the garden at Hedge End Farm are similar to massive calcite observed by the writer in faults and or cave fills in quarries around the eastern end of the Mendips. The large specimen showed evidence of being replacement of speleothem, eg banded flowstone, where primary carbonate layers have been replaced by radiating calcite. The banding is not even; at one point mounded structures appear to be truncated against underlying layers. The writer did not determine whether the deposition had taken place on a vertical or horizontal surface.

In view of the number and size of specimens, it seems likely that they are more or less *in situ*. The following origins might explain their presence.

1. Replacement of the Chalk.
2. Cave or fissure or joint fills which may be connected with 3.
3. Fault or fault related cavity fills.

White (1923) and Bristow (1992) refer to a replacement of the Chalk by 'travertinous cementation' and 'hard tufa or travertine', respectively, in exposures on Shillingstone Hill. White (1923) specifically refers to the presence of 'veins and druses of clear calcite' associated with such travertinous cementation. The Hedge End Farm specimens show no evidence of being replaced Chalk though they could conceivably be remanié from eroded layers similar to those described by White.

The excavation of the Dewlish Elephant trench, a narrow cleft in the Chalk discovered above the Devils Brook *c.* 10km SW of Hedge End Farm in the 19th century is not known to have yielded anything like this. Records of the abundant solution features found in the Chalk across Dorset make no mention of massive calcite, though the dissolution of such vast quantities of Chalk (eg House 1967) would certainly have provided the carbonate-saturated water for speleothem deposition.

The 1923 edition of the Geological Survey's Shaftesbury Sheet (No 313) shows a pair of faults trending NNW - SSE from Okeford Fitzpaine. They are shown to pass under drift deposits of Clay with Flints on Turnworth Down and do not reappear.

Resurvey of the Shaftesbury sheet by C.R. Bristow (1992 and pers. com.) shows that the more easterly of this pair of faults passes down the Winterborne valley beyond Winterborne Stickland. Bristow describes the fault as 'A major NNW trending fault [which] determines the course of the Winterborne, although the throw of the fault probably nowhere exceeds 15m. North of Winterborne Stickland, there are several small splays on the east side of the fault giving rise to small horsts and graben.' Bristow found no evidence for a southerly continuation of the more westerly of this pair of faults, the projection of which, while passing through the area of the field scatter, would have passed to the east of the large block's source.

Unmapped splays on the west side of the proven 'Winterborne Fault' or movement along that fault might have produced undetected but related features which gave rise to conditions in which this massive calcite development could take place.

If the calcite could be shown to be fault-related, the recording of the distribution of massive calcite such as this across chalk downland might provide useful information on tectonic disturbance otherwise difficult to detect.

A not dissimilar specimen of calcite from a field surface at Staggs Folley near Sydling St Nicholas (ST 615 004) was brought to the Dorset County Museum for identification. The specimen carried a high gloss, possibly the result of polishing by wind-blown loess at the end of the last

Plate 4, 1 & 2. End and side views of the calcite block on Hedge End Farm. 3: Detail of block as seen in 4.2, slightly right of centre. Hammer is 24.5cm. long.

glaciation. This specimen is deposited in the Dorset County Museum, DORCM G 11049.

Acknowledgements: The writer is grateful to Mr and Mrs R. Mason and Mr and Mrs H. Mason for information they provided on the calcite blocks and for allowing access to them. I thank C.R. Bristow for helpful discussion and generously providing information on the revised survey of the area in question.

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AN UNUSUAL TOOL-MARK IN THE PURBECK LIMESTONE FORMATION, DURLSTON BAY, DORSET

P.C. Ensom, Yorkshire Museum, York, YO1 2DR.

During the Geologists' Association field trip to Dorset in August 1992, an unusual sedimentary structure was observed on the upper surface of DB133 (Clements 1993) in Durlston Bay, NGR SZ 0381 7848. This bed is noteworthy for the pronounced false bedding which it often displays. Clements description of this bed is as follows.

'Red Rag. Medium-grey, mottled with creamy brown, coarse, bivalve biosparite. Rather rough and massive. Varying content of sand grains throughout, with more clayey and sandy laminae, and discontinuous shale bands. False bedded in part. .... Top surface and top 20 - 30mm yield bones, coprolites and plant debris including leaves. ....'

In addition to Clements' record of coarse debris, the writer has noted the presence of pebbly detritus of the 'Assemblage 1' type (Garden 1991) on the upper surface.

A substantial groove across the upper surface was observed (Plate 5, 1-2). The groove is gently arcuate, trending between N238$E and N252$E (magnetic bearing) with a width of 0.1m and was seen for a distance of more than 3m. Along the length of the groove were a series of crude chevron-like markings (Plate 5.2), suggesting the disruption of a sediment with a plastic consistency. The disruption may have either occured soon after the deposition of DB133 or early on in the history of DB134, the overlying shale. The chevrons clearly indicate movement from WSW to ENE. This direction is the same as the current direction within DB133, deduced from the false bedding structures. This feature is probably best explained as a tool-mark, produced by an object swept along by currents. The gently arcuate nature of the groove may be the result of the object rotating in the water, perhaps due to eddies. The generally coarse nature of the sediment in the upper part of this bed, and the false bedding throughout provides good evidence for a vigorous sedimentary regime, though one which may have been less so when this feature was produced. The abundant plant remains present at this horizon might provide a clue to the source of the 'tool', eg tree stump with roots, or a branch. Another possibility is that part of a drifting carcass came into contact with the sediment surface. No doubt other explanations exist. Whether the object was floating on the surface, fully submerged or at some intermediate position has not been ascertained.

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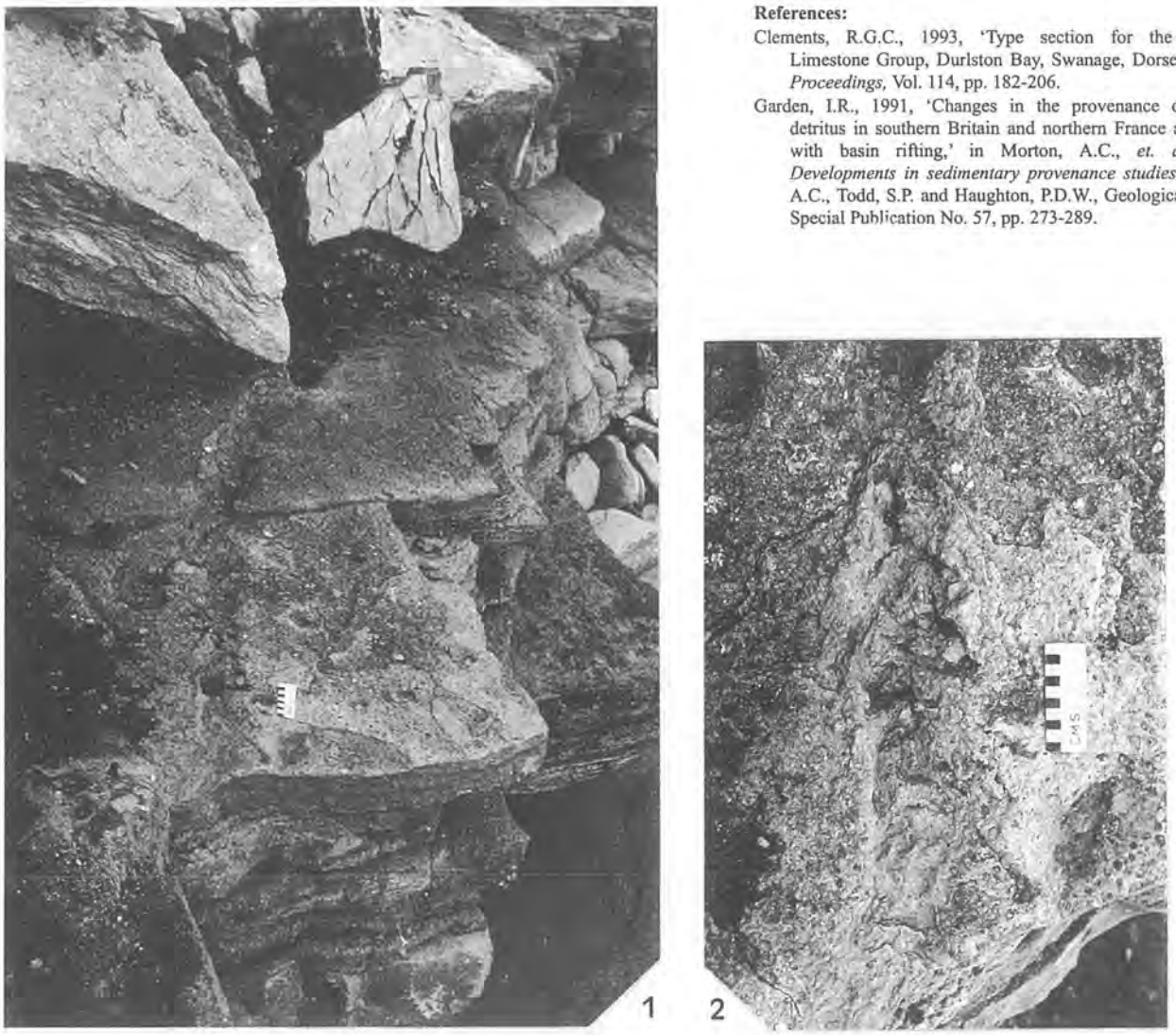

Plate 5.1, Tool-mark on surface of DB133, Durlston Bay. Plate 5.2, Detail of 5,1. showing the crude chevron-like markings. Scale bar 10cm is in the same position on each photograph.

DORSET RAINFALL 1993

D J Paxman

Dorset's general rainfall in 1993 was 1042 millimetres, 14 per cent above the 1951-1980 average of 915 millimetres, and the largest total since the 1146 millimetres of 1974.

MONTHLY SUMMARY:

	Rainfall (mm)	Average 1951-80	% of average	Number of days with thunder
January	119	97	123	0
February	11	73	15	1
March	49	70	69	0
April	93	50	185	3
May	56	62	90	11
June	75	55	136	6
July	70	56	125	2
August	38	73	52	3
September	141	85	166	5
October	134	87	154	9
November	79	103	77	0
December	179	102	175	2

Frome St Quintin, 1336 millimetres, was the wettest station and Gillingham (Claremont), 739 millimetres, was the driest.

GENERAL REPORT

A dry February compensated for a wet January. Thereafter rainfall was in deficit until the end of August. It was the high rainfall of September, October and December that made 1993 the wettest year since 1974.

There was much greater thundery activity than usual. Thunder occurred in Dorset on no fewer than 42 days, almost twice the average of recent years.

The only measurable snowfall of the year was in the early hours of Christmas Day. It was associated with a small depression which moved south-east across Devon. Much of central and north Dorset had a snow cover of 1 or 2 centimetres, though 8 centimetres were recorded on the hills at Shaftesbury. The snow had mostly gone by December 27th.

HEAVY FALLS OF RAIN

March 31st

Heavy rain in the south of England was caused by a small wave disturbance on a trailing cold front. Rainfall exceeded 25mm over most of Dorset and reached 41mm at Child Okeford.

June 11th

From 3rd to 8th June a ridge of high pressure from the Azores anticyclone extended over England and Wales. Then, as the anticyclone receded, thunderstorms broke out first in Cornwall, where 125mm of rain fell between midnight and 0900 GMT on 9th, 59mm of this in a single hour. By 11th a deepening depression was established over the British Isles, with much colder air being drawn into the South West. This gave further thunderstorms and heavy rain with extensive flooding in Wales and the West Country. In Dorset the only thunderstorm report was from Durlston in Purbeck, where the rainfall was 35mm. Most of the county had over 25mm, the heaviest pockets being around Melbury House (38mm), at Weymouth (35mm) and Iwerne Minster (35mm). As so often in thundery situations there were contrasting pockets of much lighter rainfall, notably Lilliput with a mere 3mm.

September 7th & 8th

The first few days of September were anticyclonic and quiet. By 6th a depression of 984 millibars was in the South-west Approaches. Over the next few days it moved slowly to a position north of Scotland. During this time belts of thundery rain, often very heavy, were fed north-eastwards across the country. On 7th a thunderstorm gave locally very heavy rain (52mm) at Trigon House near Wareham, and a large area of central and south Dorset had falls of 25 to 30mm.

On the following day, although no actual thunder was reported in Dorset, there were locally heavy outbursts of thundery rain notably along the border with Somerset (Halstock 43mm, Forde Abbey 37mm), and in two small areas between Shaftesbury and Blandford (26mm at Blandford St Mary, 25mm at Fontmell Magna and Iwerne Minster). Most of the county had falls which were typically 15 to 20mm inland and 5 to 10mm along the coast.

September 12th

On 11th the pressure gradient was very slack across the British Isles. An occlusion gave some heavy showers in south-eastern counties and tornadoes were observed over the English Channel, one of them penetrating as far inland as Lewes. By midday on 12th a deep depression of 976 millibars was centered off Brittany and over the next 48 hours the centre moved slowly along the north coast of France. On the morning of 12th a tornado approached Portland. Whilst still over the sea the vortex extended right down to the sea surface where it was surrounded by a 'bush' of spray thrown up by the violently rotating wind. As so often happens at this latitude the vortex disintegrated on reaching the land.

During this day very heavy rain fell in parts of Dorset. Almost the whole county had more than 25mm. A thunderstorm gave over twice this amount at a group of stations surrounding Bulbarrow. At Belchalwell Street, below the north-west facing escarpment of Bell Hill 61.8mm were recorded, the heaviest daily fall at any Dorset station during the year. For more than half of our stations this was the wettest day of the year. After Belchalwell Street the highest falls were 58mm at Turnworth House, 56mm at Hazelbury Bryan, 54mm at Ansty and 52mm at Winterborne Stickland.

September 30th

A complex area of low pressure extended from the Denmark Strait to the Mediterranean. In southern England atmospheric instability was intensified by a non-frontal trough. Although no thunderstorms was reported in Dorset there were localized outbreaks of heavy thundery rain. Over 30mm fell along a narrow band of country from Puddletown to Gillingham (38mm at Milton Abbas and Belchalwell Street, 35mm at Coles Farm, Milborne St Andrew). There was a similar fall in west Dorset (35mm at Netherhay, 33mm at Bradpole). The driest places were Turnworth House (7mm), Halstock (6mm) and Hazelbury Bryan (4mm).

October 5th to 12th

On October 1st a depression of 1002 millibars was centered off the coast of Newfoundland and moving east. By 3rd it had deepened to 963 millibars. Thereafter it began to fill, becoming quasi-stationary in the South-West Approaches from 5th to 9th.

On 10th this by now elderly depression was rejuvenated by the arrival of another from the Atlantic. These systems provided a flow of warm and unstable air across much of Britain for several days. In Dorset thunderstorms occurred daily from 5th to 12th. The wettest days were 5th, 6th and 12th.

On 5th central and north Dorset had thunderstorms, the heaviest rain falling in and around the Vale of Blackmoor and over the hills south of Bulbarrow (47mm at Hazelbury Bryan, 45mm at Fontmell Magna, 42mm at Milton Abbas). Purbeck and Bournemouth had falls of over 30mm.

Next day, although thunder occurred more generally, the heavy rain was confined to a much smaller area, but again the highest falls were centered on Blackmoor Vale (45mm at Hazelbury Bryan). Looking at the combined rainfall of 5th and 6th, Hazelbury was by far the wettest station with 92.5mm, followed by the two Marnhull stations with 70mm.

By 12th the depression had assumed an elongated shape, with southern England in a broad col between a centre off Brittany and another over the southern North Sea. Except along the coast from Bridport to Poole the entire county had over 25mm of rain. More than 40mm fell over a broad band of country extending from Dorchester almost to Shaftesbury, and also along the Dorset-Somerset border. For a quarter of our stations this was the wettest day of the year. The heaviest falls were 60mm at Netherbury, 59 at Purse Caundle and 58 at Forde Abbey. By a strange irony the one station to report thunder also had the least rain, Lilliput, with just 3mm.

November 29th

Atlantic fronts gave some heavy rain over the night of 29th/30th. Unlike the situations reviewed above, this one did not involve an unstable air mass and the hills reasserted their control over the distribution of the rainfall, which was highest over western and central hills (38mm at Netherhay, 32mm at Forde Abbey). The lowest falls were at our most northerly and most southerly stations, West Burton and Portland Bill, each with 12mm.

December 18th and 19th

At midday on 18th a depression was centered south of Iceland. The British Isles lay in the strong south-westerly airstream south of the polar front, along which secondary depressions were forming. During the

SUNDRY REPORTS 1983 - 1992

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Total
Ansty (Aller Lane)													
1983	116.7	24.3	52.6	115.5	106.2	42.5	8.7	33.8	98.4	93.6	48.6	124.5	865.4
1984	189.5	53.3	72.5	5.7	88.8	34.6	23.8	38.4	85.2	106.6	158.3	121.1	977.8
1985	102.2	49.6	80.0	50.4	29.7	48.1	59.4	138.7	40.4	46.7	63.3	196.5	905.0
1986	162.6	7.7	70.6	82.7	121.7	27.6	49.2	130.9	33.7	100.2	167.5	162.4	1116.8
1987	17.1	99.3	89.0	82.4	27.0	95.5	37.6	17.0	47.9	179.2	77.2	80.8	850.0
1988	179.1	79.3	110.9	51.1	53.5	33.4	80.7	91.6	36.4	111.9	31.6	24.7	884.2
1989	39.3	107.4	103.4	89.1	24.4	40.1	27.8	35.7	57.8	110.1	61.5	190.8	887.4
1990	143.9	210.3	11.2	38.6	40.7	47.9	23.9	22.6	47.9	103.1	54.0	77.9	822.0
1991	141.3	49.1	114.4	68.9	8.0	116.9	61.8	46.1	109.2	110.4	75.3	28.9	930.3
1992	32.8	49.0	67.8	96.5	23.4	31.0	57.3	123.0	109.6	35.7	170.9	128.2	925.2
Belchalwell Street													
1989	37.5	107.1	107.8	93.7	32.1	23.9	39.4	59.0	35.2	104.6	56.4	200.7	897.4
1990	156.5	212.4	9.2	33.1	22.5	51.8	17.9	25.9	46.4	107.1	51.6	86.3	820.7
1991	150.4	48.5	110.1	81.2	9.1	101.0	70.2	23.1	80.5	116.3	74.9	32.7	898.0
1992	35.3	48.7	66.9	86.0	10.4	51.7	60.2	125.5	144.5	36.6	172.3	145.7	983.8
East Orchard (Kumbi Lodge)													
1992	32.0	47.0	56.0	90.0	10.0	53.0	83.0	123.0	100.0	43.0	142.0	130.0	909.0
Gillingham (Slaughtergate Cottages)													
1990	90.8	136.9	8.1	25.8	7.4	63.2	22.1	45.4	55.3	75.4	42.2	67.6	640.2
1991	74.8	21.1	67.5	73.4	6.1	90.6	71.1	7.6	59.0	61.8	31.5	36.0	600.5
1992	26.6	35.5	49.5	54.6	12.8	66.5	54.3	103.6	63.9	44.0	110.1	62.5	683.9
Holwell (Vale View Farm)													
1991	92.0	27.5	72.2	64.5	9.0	60.5	51.5	10.7	66.3	45.8	73.5	24.3	597.8
1992	29.7	25.0	41.0	63.8	5.5	43.7	48.2	84.3	114.8	31.2	117.3	86.0	690.5
Kington Magna													
1991	104.5	145.0	9.0	24.5	6.0	49.0	18.5	41.0	76.0	72.0	42.5	61.5	649.5
1992	30.0	39.0	45.0	62.0	10.5	69.5	54.0	90.5	81.0	40.0	119.5	77.0	718.0
Long Burton													
1992	40.8	38.2	54.1	81.6	6.0	49.3	52.6	98.5	106.5	32.1	124.1	104.3	788.1
Marnhull (Church Farm)													
1988	139.2	66.5	85.9	34.3	48.8	23.1	105.9	50.3	59.4	107.4	35.3	18.8	774.9
1989	44.2	90.2	94.7	73.4	58.9	25.9	30.7	51.1	45.0	100.3	45.7	162.1	822.2
1990	132.6	181.1	14.7	34.5	12.4	63.8	31.0	51.1	72.6	75.2	52.1	57.9	779.0
1991	77.5	26.9	80.8	88.6	14.5	93.5	77.0	15.7	61.5	81.3	71.4	38.4	726.9
1992	34.0	44.7	55.9	71.1	14.0	44.7	99.3	115.6	96.0	42.2	127.0	90.9	835.4
Sturminster Newton (Bath Road)													
1988	133.5	58.4	77.0	32.3	41.9	28.7	73.5	66.9	32.2	90.1	30.1	16.8	681.4
1989	31.3	87.6	72.3	73.0	42.5	22.6	32.8	51.8	38.1	104.0	44.8	161.5	762.3
1990	115.4	182.3	7.7	27.0	15.2	43.3	16.1	11.5	51.8	74.7	43.3	72.3	660.6
1991	108.7	27.7	80.8	83.7	11.7	78.0	75.8	15.2	70.1	75.7	56.3	24.3	708.0
1992	29.9	36.5	47.8	76.7	11.6	53.1	61.3	98.1	107.1	37.5	132.4	111.5	803.5
Witchampton (Argent House)													
1991	113.5	38.0	100.0	60.0	8.0	117.0	80.0	15.5	83.5	86.5	59.5	28.0	789.5
1992	23.5	48.5	53.0	107.0	8.0	46.0	73.5	113.0	85.0	45.5	152.0	114.5	869.5

following 48 hours the polar front moved south and a secondary depression crossed southern England. On both rain-days rainfall over 25mm occurred along the hills of central Dorset. The wettest station on both days was Winterborne Stickland with 38mm on 18th and a further 38mm on 19th. The exact 48 hour total was 75.4mm. Coles Farm, Milborne St Andrew had 60mm and nine other stations, from Higher Wraxall in the west to Corfe Mullen in the East, had combined falls of 50mm or more.

December 30th

On 29th and 30th the north Atlantic was dominated by a large and complex depression. During 30th a small wave depression crossed the southern counties of England causing heavy rain and flooding. In Dorset rainfall exceeded 25mm south of a line from Abbotsbury through Frampton and Wimborne to Ringwood. Wareham and Purbeck had the heaviest fall (42mm at East Stoke, 40mm at Trigon House). Further along the coast in Hampshire 50mm fell at Southsea. In west and north Dorset the falls were generally 15-20mm.

RAINFALL STATIONS

The gauge formerly at Weymouth (Westham) was moved on March 3rd 1993. The new station is called Wyke Regis and is listed below together with 35 new stations. Also listed are details of our existing station at East Stour.

RAINFALL IN DORSET 1993

STATION	OBSERVER OR AUTHORITY	GREATEST FALL IN 24 HOURS		DAYS WITH 0.2MM OR MORE	DAYS WITH 25 MM OR MORE	DEPTH OF RAINFALL IN MILLIMETRES												TOTAL FOR YEAR
		Depth	Date			JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
STOUR BASIN																		
Ashmore *	Major P F Stoop	-	-	-	-	118.6	8.1	19.8	136.1	91.9	54.4	79.0	32.0	132.1	169.4	58.4	163.6	1063.5
Belchalwell Street *	D R Prestwich	61.8	12/9	172	8	133.6	9.3	52.0	111.8	50.0	65.4	69.7	32.9	168.7	162.2	66.3	161.7	1083.6
Blandford	Captain I G H Garnett	45.0	12/9	137	4	104.8	6.4	48.7	75.9	31.0	55.4	47.3	24.0	138.8	129.0	64.9	158.1	884.3
Blandford St Mary	A Fleet	-	-	-	-	-	-	-	92.4	47.1	63.5	65.5	31.8	141.9	141.5	73.8	170.2	-
Bournemouth (Hurn Airport) *	Met Office	39.7	12/9	169	6	101.8	9.8	54.4	98.8	51.1	57.2	56.7	35.6	153.3	163.5	76.9	178.7	1037.8
Child Okeford *	I R Moore	45.7	12/9	169	8	137.9	7.9	59.4	106.7	63.5	81.5	70.4	34.3	149.9	151.6	63.5	145.5	1072.1
Compton Abbas (Apple Lynchet)	H J Stirling	-	-	-	-	101.3	7.9	53.3	85.3	59.2	82.8	66.3	31.8	130.3	154.2	53.3	143.5	969.3
Corfe Mullen (Central Avenue) *	A H Dunn	46.0	12/9	179	7	116.8	11.2	64.0	99.1	63.5	80.3	69.1	39.1	149.1	120.7	85.3	181.6	1079.8
Cranborne (Pound Farm) *	D N Cradock	-	-	-	-	135.0	10.0	57.0	137.0	67.0	78.0	69.0	30.5	152.0	152.0	80.5	185.5	1153.5
East Orchard (Kumbi Lodge)	R I Jesse	39.0	12/10	137	4	96.0	5.0	18.0	101.0	55.0	70.0	64.0	35.0	137.0	137.0	54.0	134.0	906.0
East Stour *	R Brown	36.1	12/10	169	4	100.9	9.5	41.8	71.3	37.8	66.7	59.1	36.2	109.1	137.6	42.6	136.6	849.2
Fontmell Magna	Mrs J Westgate	44.8	5/10	168	7	101.1	4.3	51.4	93.9	54.7	73.8	63.5	30.3	139.9	158.5	40.8	130.2	942.4
Gillingham (Claremont Ave)	R Logan	-	-	-	-	89.0	4.5	50.0	42.6	36.1	58.8	52.1	26.7	94.1	116.5	36.5	132.2	739.1
Gillingham (Slaughtergate Cotts)	R Blachford	35.5	5/10	161	3	84.2	9.8	35.5	62.8	36.0	44.9	65.8	29.0	104.6	121.1	39.1	134.0	766.8
Hazelbury Bryan	B Russell-Attwood	56.0	12/9	144	8	119.5	7.5	27.5	126.5	69.0	67.0	34.2	27.5	160.0	195.5	57.0	142.5	1033.7
Holwell (Vale View Farm) *	P Henshaw	45.0	12/9	159	3	89.9	5.3	30.8	75.0	50.2	56.8	60.5	27.7	126.2	134.5	42.5	114.5	813.9
Iwerne Minster	R Benfield	40.0	12/10	-	-	-	-	-	83.0	50.0	75.1	57.0	26.0	132.0	142.0	48.5	134.0	-
Kington Magna	D Byrne	29.5	12/10	159	2	89.5	11.5	35.5	67.5	30.2	66.6	52.3	22.8	90.4	109.2	45.4	135.1	756.0
Long Burton *	A E Whittaker	-	-	-	-	108.7	6.5	42.9	82.9	58.3	82.5	65.6	38.0	121.3	112.4	51.8	134.5	905.4
Marnhull (Church Farm)	D J Hole	39.0	12/10	150	6	98.5	6.0	40.5	77.5	50.3	55.8	57.0	32.3	116.0	151.3	49.5	142.3	877.0
Marnhull (Hains Lane) *	A Bradbury	39.9	5/10	168	5	97.3	10.2	25.4	88.6	43.9	65.0	63.0	36.1	122.9	146.3	45.2	141.7	885.7
Motcombe (The Chase)	M E Rawlins	30.0	12/10	115	4	112.0	15.0	47.0	76.0	52.0	72.0	71.0	36.0	108.0	124.0	50.0	168.0	931.0
Shaftesbury (Higher Blandford Road)	P Dewe	-	-	-	-	-	-	-	-	54.0	-	52.0	32.0	143.0	126.0	51.0	155.0	-
Shaftesbury (Hilltop) *	M G F Yorke	39.8	12/9	179	6	118.8	10.0	54.6	93.7	67.7	91.0	75.2	37.5	145.9	147.6	60.4	170.8	1073.2
Stourton Caundle	R L Baillie	51.3	12/10	-	-	70.0	5.0	16.0	94.0	51.5	58.3	56.5	35.1	109.5	140.8	44.9	131.5	813.1
Sturminster Newton	H L Dawes	41.8	12/10	169	6	95.0	5.0	42.6	78.5	43.4	59.9	57.2	33.5	134.4	152.2	57.1	130.6	889.4
Tarrant Monkton (Monksmead) *	B G Hart	37.1	12/9	183	7	130.3	7.3	53.0	87.3	53.5	61.6	62.7	29.9	147.2	130.6	67.7	171.1	1002.2
Turnworth House	A Yetman	58.0	12/9	148	11	152.5	10.0	54.5	119.5	58.0	76.5	82.5	38.0	176.0	176.0	81.5	181.0	1206.0
West Bourton *	D Westmacott	-	-	-	-	105.7	9.4	36.3	77.2	43.2	50.3	58.2	33.0	95.8	84.3	31.7	151.4	776.5
Winterborne Stickland *	Mrs T M Simpson	52.1	12/9	180	12	176.3	10.7	56.9	111.1	45.7	65.4	75.8	38.6	172.5	185.0	93.2	222.5	1253.7
Winterborne Zelston *	B E Hooper	-	-	120	-	128.0	10.0	53.0	93.0	44.0	63.0	72.0	44.0	111.0	126.0	73.0	163.0	980.0
Witchampton *	A Mitchell	43.5	12/9	168	-	120.0	9.0	46.0	117.3	85.5	71.4	68.8	40.3	153.5	146.5	78.5	168.3	1105.1
FROME BASIN																		
Ansty (Ivy Cottage) *	Mrs A Stevens	54.3	12/9	180	8	131.2	10.3	50.2	95.4	46.8	63.3	73.1	34.2	167.9	166.6	78.9	176.3	1094.2
Bradford Peverell *	D Oliver	41.0	12/9	181	10	148.0	18.3	61.5	99.5	49.4	84.7	73.0	51.2	147.2	131.0	123.0	220.8	1207.6
Cerne Abbas (Abbots Walk) *	Mrs M Boxwell	37.9	12/9	186	8	153.3	15.9	41.6	99.6	70.4	84.4	83.1	41.7	150.7	143.3	88.9	185.8	1158.7
Charminster (Hill View)	Mrs Eveleigh	48.3	12/9	-	-	123.7	15.9	55.7	91.7	44.2	81.5	66.6	42.5	151.5	136.9	117.3	209.3	1136.8

STATION	OBSERVER OR AUTHORITY	GREATEST FALL IN 24 HOURS		DAYS WITH 0.2MM OR MORE	DAYS WITH 25 MM OR MORE	DEPTH OF RAINFALL IN MILLIMETRES												TOTAL FOR YEAR
		Depth	Date			JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
FROME BASIN (CONTINUED)																		
Dewlish (Parsonage Farm)	Mrs Britton	41.0	12/10	149	11	154.0	14.0	56.0	94.0	38.0	76.0	74.0	35.0	148.0	170.0	76.0	199.0	1134.0
Dorchester (Weatherbury Way) *	J R Oliver	42.9	12/9	179	9	136.5	14.7	55.8	87.0	40.7	71.6	72.2	59.7	160.7	169.6	106.0	213.0	1187.5
East Stoke (River Lab) *	J Morgan	42.3	30/12	165	7	120.4	10.6	55.3	85.3	35.6	67.6	60.9	41.1	149.9	98.8	98.1	229.8	1053.4
Frome St Quintin *	D Pearman	45.5	12/9	181	10	158.0	18.5	63.8	115.1	80.0	100.8	99.3	53.6	170.9	147.1	118.1	210.8	1336.0
Higher Wraxall (Manor Farm) *	Mrs J. Wilson	36.7	12/9	153	9	144.5	19.0	62.3	98.9	63.8	86.1	83.0	49.0	138.8	132.5	109.8	194.5	1182.2
Milborne St Andrew (Coles Farm) *	A S Maitland	40.0	12/10	175	10	151.9	11.7	59.0	93.8	39.8	67.8	74.1	41.7	161.0	179.6	90.6	199.2	1170.2
Milborne St Andrew (Wetherby Close)	R E Baylis	-	-	-	-	120.5	10.0	30.5	100.5	31.5	69.1	68.1	36.3	142.5	150.7	78.3	183.8	1021.8
Milton Abbas	K Battrick	-	12/9	165	11	153.0	11.0	59.0	107.0	38.0	69.0	72.0	37.3	178.0	203.5	91.5	202.5	1221.8
Parkstone (Lilliput) *	R J O Crew	43.9	12/9	138	5	66.3	8.1	41.9	84.3	61.2	55.4	52.1	30.5	82.0	90.7	69.3	154.7	796.5
Puddletown (Bardolph Manor) *	H G Wood-Homer	43.7	12/9	171	11	121.2	12.2	55.3	98.0	52.3	82.7	69.1	41.4	167.4	164.7	92.6	194.3	1151.2
Wareham (Trigon) *	G P Sturdy	51.6	7/9	153	7	107.2	9.3	52.0	85.9	32.2	64.6	54.3	40.2	163.0	108.4	92.4	194.5	1004.0
PARRETT BASIN																		
Chetnole Farm *	P Horsey	35.0	12/9	123	6	98.0	8.0	36.5	93.5	46.0	63.0	52.0	34.0	109.0	135.0	70.0	161.5	906.5
Halstock (Meadow View) *	Cdr J R Young	43.0	8/9	151	6	119.0	14.0	48.0	100.0	63.0	81.0	70.0	49.0	175.0	120.0	85.0	199.0	1123.0
Leigh (Denbury House) *	Lt Col Barlow-Poole	42.2	12/9	136	6	95.0	7.6	42.9	79.0	54.6	76.5	63.2	36.3	128.5	141.7	67.8	145.8	939.0
Melbury Sampford (Melbury House) *	Ilchester Estates	37.8	11/6	171	7	143.3	14.5	51.8	102.2	69.6	93.9	79.5	44.0	144.2	149.7	99.1	185.7	1177.5
Milborne Port, Som.	E B Evans	40.1	12/9	163	6	125.5	7.6	48.0	86.9	56.1	85.9	84.1	43.7	139.7	126.2	45.5	155.7	1004.9
Purse Caundle (Frith Farm)	K Dunn	58.8	12/10	-	-	-	-	-	63.6	49.9	76.3	68.5	42.2	124.9	153.3	60.8	152.3	-
Thornford	D H Paul	-	-	162	-	127.3	7.2	43.8	81.9	62.0	80.7	61.0	36.2	128.0	162.6	44.5	152.6	987.8
Yetminster (Church Street)	J M Bosworth	-	-	-	-	112.8	7.5	41.9	91.6	56.2	79.7	59.1	38.3	153.5	116.4	63.0	154.5	974.5
AXE BASIN																		
Broadwindsor (Netherhay) *	J A Barnard	60.1	12/10	-	9	141.0	13.7	53.4	107.1	89.2	79.5	69.5	43.5	174.8	140.2	99.4	205.0	1216.3
Forde Abbey *	M Roper	58.4	12/10	168	6	94.4	10.1	44.5	102.3	90.4	68.4	60.6	30.0	153.7	153.9	93.3	181.3	1082.9
COASTAL STREAMS																		
Abbotsbury (East Farm) *	D J Wood	47.8	12/9	153	6	80.3	8.9	46.2	63.8	48.3	88.6	69.1	33.5	136.1	55.9	79.8	177.0	887.5
Bradpole *	G R Smith	41.0	12/9	124	3	110.7	12.3	47.6	76.0	63.8	90.4	89.5	38.8	164.1	111.4	94.9	178.1	1077.6
Durlston Country Park	M Turnbull	34.9	11/6	167	6	116.8	8.5	44.0	73.9	61.4	94.7	75.2	46.9	139.9	129.6	92.3	216.6	1099.8
Langton Matravers (Leeson House) *	Mrs D M Kerridge	36.9	30/12	170	6	124.9	8.7	45.9	75.3	54.5	89.5	77.4	41.5	114.3	137.7	85.0	219.0	1073.7
Lyme Regis (Pinhay, Devon) *	Mrs K D Allhusen	47.2	12/10	164	4	104.4	11.4	45.4	82.7	80.1	78.2	78.3	29.7	153.1	144.3	86.3	200.0	1093.9
Osmington Mills *	J Hadwin	37.0	30/12	150	3	122.0	10.0	52.5	81.0	37.5	83.0	80.5	32.5	99.5	91.0	73.5	180.5	943.5
Portland Bill *	Mrs F Lockyer	32.3	12/9	162	3	83.1	6.7	40.5	63.8	32.6	79.5	53.4	35.6	101.6	81.2	64.8	140.6	783.4
Swanage *	K Moore	36.0	30/12	165	3	119.8	7.9	44.2	67.3	54.0	84.7	71.1	40.9	113.4	129.0	85.3	213.3	1030.9
Weymouth (Cranford Avenue) *	H F Middleton	35.7	30/12	163	7	97.8	6.5	46.8	67.3	28.6	83.2	73.3	30.5	130.7	111.0	76.4	168.5	920.6
Wyke Regis	G Barnes	34.5	30/12	159	3	98.8	7.0	42.6	67.7	38.4	75.1	54.0	30.9	117.2	91.9	66.8	162.6	853.0
AVERAGE FOR THE COUNTY				160	7	119.3	10.6	48.6	92.5	56.1	74.6	69.7	38.3	140.7	134.3	79.2	178.5	1042.3

Stations marked * were used in calculating Basin and County averages.

Station	NGR	Height ASL
Ansty (Ivy Cottage)	ST 769029	127m
Ashmore	ST 917173	194m
Belchalwell Street	ST 796089	125m
Blandford	ST 882065	c 40m
Blandford St Mary	ST 885058	34m
Chetnole Farm	SY 605073	80m
Child Okeford	ST 832132	c 81m
Compton Abbas (Apple Lynchet)	ST 869192	143m
Cranborne (Pound Farm)	SU 054137	69m
East Orchard (Kumbi Lodge)	ST 841161	60m
East Stour	ST 804232	106m
Fontmell Magna	ST 869165	95m
Gillingham (Claremont Avenue)	ST 805273	79m
Gillingham (Slaughtergate Cottages)	ST 793269	c 85m
Halstock (Meadow View)	ST 541079	71m
Hazelbury Bryan	ST 741081	107m
Holwell (Vale View Farm)	ST 713108	79m
Iwerne Minster	ST 867148	80m
Kington Magna	ST 763228	64m
Long Burton	ST 648132	100m
Marnhull (Church Farm)	ST 783195	61m
Marnhull (Hains Lane)	ST 778201	61m
Milborne Port, Somerset	ST 676183	76m
Milborne St Andrew (Coles Farm)	SY 793979	107m
Milborne St Andrew (Wetherby Close)	SY 805972	82m
Motcombe (The Chase)	ST 846267	99m
Purse Caundle (Frith Farm)	ST 706175	91m
Shaftesbury (Higher Blandford Road)	ST 874223	190m
Shaftesbury (Hilltop)	ST 868237	230m
Stourton Caundle	ST 719158	94m
Sturminster Newton	ST 787148	61m
Turnworth House	ST 815080	149m
West Bourton	ST 765296	97m
Winterborne Stickland	ST 832044	91m
Winterborne Zelston	SY 890976	46m
Witchampton	ST 989065	38m
Wyke Regis	SY 663773	34m

THE TABLE OF RAINFALL

This year the number of reporting stations has more than doubled to 67. The rainfall averages for the county have been calculated from 41 of these stations, chosen to be representative both spatially and by height above sea level. These stations are marked in the Table with an asterisk.

The much larger number of stations also called in question the practice of presenting them in strictly alphabetical order. Some form of regional grouping seemed desirable. They have therefore been grouped according to the river basin in which they lie. Within each basin the stations are arranged alphabetically.

THE RIVER BASINS

(The figures for the area of each basin, being intended only for broad comparison, have been rounded).

1. *Avon* (75km^2)

Only 4% of the basin of the Salisbury, Hampshire or East Avon is in Dorset. Most is in Wiltshire. Since the last boundary changes the Avon forms part of Dorset's border with Hampshire. At present we have no reporting station in the Avon basin.

2. *Stour* (1070km^2)

Dorset has 85% of the Stour basin. The remainder is in Wiltshire.

3. *Frome* (830km^2)

The Frome basin is deemed to include all rivers and streams draining into Poole Harbour, notably the Piddle, the Sherford River and the Corfe River, which drains a considerable part of Purbeck. It also includes the small streams which drain directly into the sea between Poole and Christchurch Harbours, eg the Bourne and the streams issuing from Branksome and Alum Chines.

4. *Parrett* (180km^2)

Dorset has 10% of this basin, which is the only one to carry water from Dorset to the Severn Estuary.

5. *Axe* (60km^2)

The Axe rises in Dorset, a few hundred metres from the Maiden Newton to Crewkerne road, but only 8% of the basin is in Dorset. The Axe and its tributary, the Blackwater River, form part of the border between Dorset's Thorncombe Hundred and both Somerset and Devon. The waters enter the English Channel at Seaton, Devon.

6. *Coastal Basins* (410km^2)

This group includes all the streams draining into the sea from Lyme Bay to Swanage Bay, notably the Lim, Char, Brit, Bride and Wey. The Brit is the largest of these minibasins.

The average rainfall over each basin in 1993, calculated from the asterisked stations, is as follows:-

Avon	-
Stour	1009mm
Frome	1122
Parrett	1037
Axe	1150
Coastal	976

The average over the whole county was 1042mm.

CHILD OKEFORD : ANNUAL TOTAL RAINFALL 1976 - 1992

Year	Total	Year	Total	Year	Total	Year	Total	Year	Total	Year	Total
	mm		mm		mm		mm		mm		mm
1976	877.6	1979	911.4	1982	992.9	1985	777.5	1988	780.5	1991	876.0
1977	936.8	1980	814.6	1983	685.0	1986	985.0	1989	856.5	1992	946.7
1978	842.5	1981	932.2	1984	809.8	1987	762.0	1990	827.8		

DORSET BOTANY IN 1993

D. Pearman

1993 was another successful year for new records and for extensions of the known ranges of our rarer plants. Dorset of course includes parts of two vice-counties (the base unit for much biological recording) comprising the whole of V.C.9 (Dorset) and part of VC 11 (S.Hampshire) and records in this report come from both.

Poa infirma was recorded for the first time on Hengistbury Head (in VC11) and then found again on the Bournemouth Cliffs. *Mibora minima* was discovered on Studland dunes in what may well be a native site.

Botrychium lunaria, *Ranunculus lingua*, *Dipsacus pilosus*, and *Hordeum marinum* were found for the first time for over twenty years; all were feared extinct. The hybrid pondweed *Potamogeton natans* x *nodosus* was identified from Marnhull, its first British record.

One of the surveys carried out in the year was of the whole length of the Bournemouth Cliffs. In this heavily used and substantially modified environment very many rare and uncommon plants were found, including *Cynodon dactylon*, *Cynosurus echinatus*, *Lotus subbiflorus*, *Poa bulbosa*, *Poa infirma*, *Silene gallica*, *Trifolium glomeratum*, *T. suffocatum*, *Valerianella eriocarpa*, and *Vicia lathyroides*. These records make it probably the botanically richest length of cliff in Britain!

A re-arrangement of the Dorset Environmental Records Centre revealed the diaries of Miss Meggison who was an active botanist and Wild Flower Society member in the 1930s. Some of her more interesting records are appended.

Finally, the new Dorset Flora project has produced many interesting records in other groups and a selection of the best is listed.

Abbreviations used are:-

HJMB - Dr H.J.M.Bowen	JO - J.Ounsted
SE - Dr S.Eden	DP - D.Pearman
BE - B.Edwards	CDP - C.D.Preston
GF - G.Field	VS - Mrs V.Scott
RF - Lady R.Fitzgerald	RW - R.Walls
MH - Ms M.Heath	FW - Mrs F.Woodhead
AH - Miss A.Horsfall	

Allium oleraceum - Field Garlic

White Nothe, HJMB; Lulworth, DP; Tyneham, HJMB. Two new coastal sites for this rare plant. The white 'hood' made by the spathes is very characteristic.

Botrychium lunaria - Moonwort

Pamphill, MH. Two plants in a steep west-facing pasture are the first record for Dorset for almost twenty years. The site is owned by the National Trust and should be safe.

Briza minor - Lesser Quaking-grass

Romford; Verwood; Alderholt; JO and GF. Most of the recent records have been in this area.

Carex curta - White Sedge

West Moors RAOC, DP; A fifth site in VC.9.

Carex elongata - Elongated Sedge

Moors River, RW. The known sites are thriving and expanding.

Carex humilis - Dwarf Sedge

North of Blandford Camp, DP. The camp has substantial populations. This is in an overgrown field on the edges of scalloped trenches dug in the war.

Carex lasiocarpa - Slender Sedge

Tadnoll. J.Topp and DP. About 100 yards of a north/south rhine is filled with this sedge along with C.rostrata and little else. C.lasiocarpa is known for Morden Bog and Keysworth and from less than six other sites in the South of England.

Carex viridula ssp. *viridula* (*Carex serotina*) - Small-fruited Yellow Sedge

Hooke, L.Margetts, confirmed A.O.Chater. The first confirmed record away from the Studland peninsula for many years.

Cerastium pumilum - Dwarf Mouse-ear

Portland, in two places; Spyway Farm; RF and DP. As part of the BSBI scarce species scheme all the known sites were re-visited with only a few plants being found. It was not rediscovered on Eggardon Hill where there were reliable records from 1952 and doubtful ones from 1973.

Chamaemelum nobile - Chamomile

Pamphill football pitch, R.Leney. A very large population over much of the pitch and extending onto the cricket square.

Chenopodium vulvaria - Stinking Goosefoot

West Bay, DP. A superb season with hundreds of plants, some 9" across.

Clinopodium acinos - Basil Thyme

Blandford Camp, MH.

Cynodon dactylon - Bermuda Grass

Bournemouth Cliffs, RW, BE. Two patches, extending the distribution around Poole and Bournemouth.

Dactylorhiza traunsteineri

Studland; St.Leonards Hospital., M Jenkinson

Dipsacus pilosus - Small Teasel

Sturminster Newton, BE; Silton, Mrs D.Newton. This easily overlooked plant had not been recorded since 1978; after an appeal in the DERC newsletter these two records were sent in. The centres of the older records were Beaminster and Marnhull. It is not uncommon in Somerset and Wiltshire and possibly still overlooked in North Dorset.

Epipactis leptochila - Narrow-leaved Helleborine

Garston Wood, B.Last and M.Jenkinson; Poxwell, HJMB.

Epipactis purpurata - Violet Helleborine

West of Bulbarrow Hill, BE. Four small sites in little pockets of woodland.

Erica ciliaris - Dorset Heath

Stokeford Heath, BE. Almost the most westerly site.

Erodium moschatum - Musk Storksbill

Southbourne, RW and BE. One plant, as a weed.

Euphorbia platyphyllos - Broad-leaved Spurge

Sherborne Castle, CDP; Cripplestyle, JO and GF.

Fallopia dumetorum - Copse Bindweed

Mannington, JO and GF. A second and much more substantial site in the county. Here it smothers a roadside hedge for over 100 yards. It is a rare and declining plant in the south of England.

Galium pumilum - Slender Bedstraw

Although this was recorded in the last century there have been no recent records other than five sites from Miss C.Jones, made during her Chalk downland survey in 1971. These have not been re-found although the plant is critical and easily overlooked.

Gentianella anglica - Early Gentian

Maiden Castle, D.Green. 1 plant. Dorset and the Isle of Wight seem to hold most of the British sites of this rare plant.

Hordeum marinum - Sea Barley

Burton Mere, L.J.Margetts. Another plant re-found after not having been reliably recorded for 20 years. The old site was at Ferrybridge, where there has been substantial disturbance over the years.

Hottonia palustris - Water Violet

Studland, R.M. Harley, 1956. There were old records but none since before 1900. The finder recalls it from a small open ditch in considerable quantity not very far from a car-park.

Hypericum montanum - Pale St John's Wort

Gad Cliff, SE. There are very few recent records.

Illecebrum verticillatum - Coral Necklace

West Moors, K.Powrie. Still in excellent quantities.

Isoetes echinospora - Spring Quillwort

The old sites at Moigne Coombe and Furzebrook were searched without success, DP and CDP.

Juncus ranarius - Frog Rush

Lulworth Cove, A.Showler, confirmed DP. A third County record.

Legousia hybrida - Venus's Looking-Glass

Moreton. HJMB.

Lotus subbiflorus - Hairy Birdsfoot Trefoil

Monmouth's Ash, JO, GF; Stephens Castle, VS; Hurn Airport, BE; all along the Bournemouth Cliffs, RW, BE. There have been many recent records from Dorset but in Britain as a whole this is a rare and declining species.

Lycopodiella inundata - Marsh Clubmoss

Bovington, HJMB,; Stoke Heath, BE; Coombe Heath, DP; Holt Heath, BE and D.Godfrey. Four small colonies of this fast declining plant.

Medicago polymorpha - Toothed Medick

Cave Hole, Portland, DP. Thousands of plants. Weston, Portland, M.Galliott.

Mibora minima - Early Sand-grass

Studland, F.W. A small patch in a dune slack, seemingly native but odd that it is so discrete. The native habitat is sand dunes, and it is not uncommon from the Channel Isles southwards. For many years there was a well-known alien site in Dorset at Stewarts Nurseries.

Moenchia erecta - Upright Chickweed

Abbotsbury Castle, I.Taylor. Another west Dorset Site.

Nardus stricta - Mat-grass

Holt Green; Corfe Common, BE. These records of a grass abundant in western Britain are only included because it is now infrequently

recorded in Dorset. Prof.Good recorded it as frequent on the heaths and occasional in the north and west of the county.

Oenanthe fluviatilis - River Water-Dropwort

Six new sites from the River Frome, River Piddle and River Stour, BE. There are surprisingly few records in Dorset for this comparatively easy to identify umbellifer.

Papaver dubium ssp. *lecoquii* - Yellow-juiced Poppy

Sherborne Castle, CDP.

Parentucellia viscosa - Yellow Bartsia

Cripplestyle, JO, GF; Hartland, DP, BE; Parley Common, BE.

Persicaria minor - Small Water-Pepper

Holt Heath, JO, GF.

Platanthera bifolia - Lesser Butterfly Orchid

Studland, S.Morrison

Poa bulbosa - Bulbous Meadow-grass

Southbourne, RW, BE. This is only the second extant record for the county.

Poa infirma - Early meadow-grass

Hengistbury Head, FW, confirmed J Edmondson; Bournemouth, 3 sites, RW, BE. A new County record (VC11) for this Red Data Book grass. The only other British records are from Cornwall and Devon. It has been looked for before in Dorset, albeit in a rather desultory fashion, and may still be found on Portland.

Polypodium cambricum - Southern Polypody

Stalbridge, BE, confirmed A.C. Jermy. A substantial colony on the walls of the park, and easily the largest site in Dorset.

Puccinellia fasciculata - Borrer's Saltmarsh-grass

West Bay, HMJB

Puccinellia rupstris - Stiff Saltmarsh-grass

Eype Mouth, DP, one plant; Bowleaze Cove, HJMB.

Ranunculus lingua - Greater Spearwort

Pamphill, MH. Another plant rediscovered in Dorset after at least 20 years. There are about 12 plants on silt around a dammed stream. Although widely planted it is probably native in this site as there have been a number of old records from the Cowgrove and Pamphill area. Mr R. Leney recalls seeing a few plants in a ditch just upstream of Cowgrove before 1980.

Ranunculus parviflorus - Small-flowered Buttercup

Eggardon Hill, RF. A good inland record.

Rhynchospora fusca - Brown Beak-sedge

Grange Heath, P.Sterling; North end of Holt Heath, BE, D.Godfrey; North of Parley Common, BE; Rempstone Heath, some very large colonies, DP.

Sarcocornia perennis - a glasswort

Arne, DP, RW, and R.W.David.

Scandix pecten-veneris - Shepherd's Needle

Cave Hole, Portland, J.Pyett. There were quite a few plants along the edge of a field dominated by Medicago polymorpha.

Silene gallica - Small-flowered Catchfly

Lower Kingcombe, SE; Whitcombe Barn, HJMB; Bournemouth, two sites, RW. This formerly widespread weed has declined even faster than most other arable plants.

Trifolium glomeratum - Clustered Clover

Bournemouth Cliffs, RW, BE.

Trifolium ornithopodioides - Fenugreek

West Bay, DP. There are very few recent sites in west Dorset.

Trifolium squamosum - Sea Clover

Bowleaze Cove, HJMB.

Trifolium suffocatum - Suffocated Clover

Castle hill, Edmonsham, RW. This is a welcome re-find of an older record from this nice bare site; Bournemouth Cliffs in several places, RW and BE.

Valerianella eriocarpa - Hairy-fruited Cornsalad

East of Moonfleet, SE; Shepherds Dinner, Portland, RF, a new site; East of Bournemouth Pier, RW. This Red Data Book plant was only known in two sites in Dorset; above Church Ope Cove on Portland, where it is frequent, and just east of St Aldhelms Head in a bare field. It seems extraordinary to find three new sites in one year.

Vicia tenuissma - Slender Tare

Yetminster, J.Gibson

Viola lactea - Pale Dog-Violet

Stoke Heath, two new sites, Miss Trevor; AH.

Viola tricolor - Wild Pansy

Bincombe; Overmoigne; Knighton Heath, HMJB.

Zostera marina - Eelgrass

Shell Bay on strandline, HJMB.

ALIENS AND ADVENTIVES

Adiantum pedatum	Kingston Lacy	HMJB
Anthemis punctata	Morcombelake	MG
Artemisia absinthium	Poxwell	HMJB
Azolla filiculoides	Chideock	DP
	Stephen's Castle	VS
Barbarea intermedia	Mosterton	J.Keylock
	Alderholt	JO
Bassia scoparia	Tatchells Pit	HJMB
Brassica juncea	Tatchells Pit	HJMB
Bromus carinatus	Cripplestyle	GF
Chenopodium hybridum	Cranborne	JO/GF
	Holwell	JO/GF
Chenopodium murale	Rodwell	HJMB
Clematis flammula	Corfe Castle	J. Bowyer
Conyza sumatrensis	Sherborne	P & I Green
	Fortuneswell	D.Bevan
Cynosurus echinatus	Bournemouth Cliffs	RW/BE
Erica scoparia	Clouds Hill	HJMB
Galanthus ikariae	Swanage	HJMB
Galinsoga quadriradiata	Dorchester	J.Bowcott
	Swanage	D.Leadbetter
Heracleum mantegazzianum	North of Charmouth 100s of plants	DP
Lagurus ovatus	Thornford	P & I Green
	Bournemouth Cliffs	RW/BE
Lepidium ruderale	Binnegar	HJMB
Limonium hyblaeum	West Bay	HMJB
Mentha pulegium	Boys Hill	SE
Nepeta cataria	Boveridge	JO/GF
Oenothera fallax	Mosterton	J Keylock
Oenothera stricta	Bournemouth Cliffs frequent	RW/BE
Parthenocissus inserta	Blandford	HJMB
Potentilla recta	Stephen's Castle	VS
Pseudofumaria alba	Ashmore	HJMB
Rubus tricolor	Broadmayne	HJMB
Salix pentandra	North of Coombe Heath, 1 tree	DP/SE
Scrophularia vernalis	Beaminster	O Davidson
Sedum hispanicum	Broadmayne	HJMB
Sedum stoloniferum	Broadmayne	HJMB
Selaginella kraussiana	Colehill	HJMB
Setaria pumila	Sherborne	P & I Green
Sisyrinchium striatum	Holes Bay	HJMB
Verbascum blattaria	Knighton Heath	HJMB

HYBRIDS

Carduus crispus x *nutans*

Bincombe, HJMB; East Chaldon, S.Philp

Polystichum aculeatum x *setiferum*

Uphall, L.Margetts

Potamogeton natans x *nodosus* (*P.x schreberi*)

Marnhull, CDP

P. nodosus, a Red Data Book pondweed, is well known in the River Stour, but is restricted to the stretch from Child Okeford to Blandford. There have been recent records from the Marnhull area, but these have not been confirmed or re-found. After collections in 1992 and 1993 there seems little doubt that all the Marnhull populations are the hybrid and are the first British record for this.

Potamogeton lucens x *natans* (*P.x fluitans*)

Moors River, St Leonards to Hurn, CDP, DP, RW. This hybrid has by

far the largest of its three British populations in the Moors River, where it is abundant over this stretch.
Rosa canina x *sherardii*
Verwood, V.Scott, det. A.R. Primavesi

MISS MEGGISON'S RECORDS, DATED WHERE KNOWN.

To my knowledge none of these plants are now found in any of the listed sites.

Aconitum napellus	Closworth Bridge	1937
Allium oleraceum	Fleet	1955
Arnoseris minima	Verwood Common	1938
Blyssmus compressus	Cowgrove	1938
Botrychium lunaria	Benville; Broadwindsor	1938
Bupleurum tenuissimum	Chaffeys Lake, Weymouth Now very overgrown	1937
Carex dioica	Tadnoll	
Carex elongata	St. Leonards Bridge	1938
Carex lasiocarpa	Sandford Pottery Is this the same site as Keysworth	
Chrysosplenium alternifolium	Loders; Bradpole, Rampisham; Refound at Bradpole, DP	1938 1994
Cyperus longus	Wool	
Chenopodium vulvaria	Rodwell and Westham, Weymouth	1937
Coeloglossum viride	Benville	
Dipsacus pilosus	Beaminster	1937
Drosera longifolia	Tadnoll; Uddens, Is the latter the old site at Slop Bog?	
Eryngium maritimum	Charmouth	
Lycopodiella inundata	Pilford, Wimborne	1938
Leersia oryzoides	Wareham	1944
Persicaria minor	Cowgrove	1938
Polygonum dumetorum	Horton	
Polygonum oxyspermum	West Bay	1937
Pulicaria vulgaris	God's Blessing Green	1937
Ranunculus lingua	Witchampton Mill	
Rumex maritimus	Bexington	
Sium latifolium	Longham	
Stellaria palustris	Middlemarsh; Glanvilles Wooton; Corfe Mullen; St Leonards Bridge.	

SOME BRYOPHYTE RECORDS,1993
From HJM Bowen (who made the records not otherwise annotated)
Frullania fragilifolia,
Hedwigia ciliata - Valley of Stones, on stone
Frullania tamarisca - on sandy cliffs, Worbarrow Bay
Lophocolea bispinosa - wet,sandy ridge near Bovington (NCR & new to British mainland, det. J.A.Paton) + *Archidium alternifolium* on disturbed heath
Ricciocarpus natans - in pond, Motcombe, Mrs L.Biles (NCR)
Cryphaea heteromalla - On elder, Castle Hill, Cranborne
Fossombronia pusilla - rutted woodland ride, Melcombe Park

SOME LICHEN RECORDS, 1993
Parmelia omphalodes - on stones, Valley of Stones (NCR)
Cladonia folicea - undercliff, Durdle Pier Portland
- sandy cliff, Worbarrow Bay
Verrucaria simplex - on calcareous pebbles, Durdle Door, O.L.Gilbert
Anaptychia runcinata - St Aldhems Head undercliff, BE
Heterodermia obscurata - Melbury Head, O.L.Gilbert NCR
Caloplaca alociza - on limestone, Durlston Country Park
Ramalina siliquosa - on limestone walls, Emmets Hill
Catapyrenium pilosellum - on soil, and *Catillaria aphea* on calcerous pebbles
Thelidium minutulum + *Verrucaria murina* - on flints (4 NCRs from Ballard Down, O.L.Gilbert)

SOME FUNGAL RECORDS, 1993
Clathrus ruber - a Dorchester garden
Polyporus ciliatus (NCR) - on birch,Warmwell Heath
Lentinellus cochleatus, *Leptopodia elastica* - Oakers wood, J.Keylock
Clavaria vermicularis - on lawn, Winterborne Kingston (NCR)
+ *Pulcherrimum carruleum* - on sticks, Winterborne Kingston (NCR)
Entoloma serrulata - roadside, Arne
Morchella elata - garden, Wareham (1979), AH
Chroogomphus rutilus - Warry's Wood
Ceriporiopsis gilvescens - Holwell, L.Breeze
Spattularia flavida - Piddle Wood, L.Breeze
Hygrophorus petarum - chalk grass, Hambledon Hill (NCR)
Resupinatus applicatus - on sticks, same site (NCR)
Agaricus porphyrocephalus - grass, Durlston Head (NCR)
Hygrocybe citrina & H. russocoriacea - Castle Hill, Cranborne

MARINE INVERTEBRATES

John Hawthorne

Weymouth Beach
In spite of the intensive human use of Weymouth Beach it remains a sandy shore habitat of high value. The last reference to the beach in these notes was in Volume 103 for 1981, so opportunity is being taken this year to emphasise the continuing health and interest of the population of animals that inhabits the beach and the floor of Weymouth Bay immediately adjacent to the beach.

The simplest method of evaluating the beach fauna is to visit after a period of strong easterly or south easterly winds at spring tides. There has not been an ideal opportunity for your author recently, but visits on the 1st and 2nd December, 1993 yielded the following data:

SEA ANEMONE
Calliactis parasitica - three moribund specimens associated with *Buccinum undatum* shells. Gulls had presumably eaten the hermit crabs that were probably carrying them.

These animals were noted on 1.12.93; all the following records are for 2.12.93.

ANNELIDS
Pomatoceros triqueter - tubes on an old *Mya arenaria* shell fragment.

A special survey is necessary to assess the burrowing annelid fauna. Casts on the sand surface suggest the worm population remains high.

MOLLUSCS
LIVE
Crepidula fornicata - very large number of chains of individuals increasing in quantity between the Pier Pavilion and the Clock. Numbers remained high until opposite the King's Statue, with groups at a density of $20/m^2$ as far south as opposite Marks and Spencers store.
Buccinum undatum - one, half grown.
Gibbula magus - two.
Venus striatula - several.
Venerupis rhomboides
Venerupis pullastra - two.

DEAD WITH FLESH ATTACHED
Venus verrucosa

HINGED BIVALVE SHELLS
Anomia ephippium
Acanthocardia sp. - half grown
Cerastoderma edule
Venus verrucosa
Venus striatula
Venerupis rhomboides
Venerupis pullastra
Ensis ensis
Ensis siliqua
Solen marginatus

DEAD, EMPTY SHELLS.
These shells were not discoloured or abraded and are considered to be relatively fresh.
Pecten maximus
Mya arenaria

CRUSTACEA
FRESH DEAD
Eupagurus bernhardus
Maia squinado
Corystes cassivelaunus

Cancer pagurus
Carcinus maenas
Macropipus depurator
Macropipus puber

ECHINODERMATA
Echinocardium cordatum - one broken shell, probably cleaned out by gulls, but still with its spines and considered fresh dead.

It is particularly pleasing to find evidence of the 'Weymouth specials', the masked crab (*C.cassivelaunus*) and the sea potato(*E.cordatum*).

LEPIDOPTERA

Alan T. Bromby

Records were received from:
R BURT, K COOK, J R COX, A H DUNN, N HUTCHINSON, R PLOWMAN & M ROGERS

Dorset Environmental Records Centre have kindly supplied records of migratory species, and Mr PLOWMAN and Mr ROGERS have submitted details of catches from light traps at Durlston Country Park (R.P.) and Portland Bird Observatory (P.B.O.).

Cossus cossus Linn. Goat Moth. Brownsea 27.6. (K.C.)

Plutella xylostella L. Diamond-back Moth. Portland 254 between 24.4. & 8.11. with a peak of 31 on 13.6. (P.B.O.)

Udea ferrugalis Hb. Rusty Dot Pearl. Portland 16.6, 27.6, 21.7. & 9.8; followed by 43 between 15.8. & 3.10; with peak counts of 6 on 18.8. & 20.8; then 3 between 4.11. & 6.11. (P.B.O.). Woolgarston 10.6; 4.8. & 5.8; 31.8. & 14.10. (R.B.)

Nomophila noctuella D & S. Rush Veneer. Portland 1.5; 2 on 20.7; 4 between 19.8. & 21.8, 18 between 12.9. & 19.9; with peak of 5 on 12.9; 15.10. (P.B.O.)

Colias croceus Geoff. Clouded Yellow. Scarce this year. Portland singles on 4 dates between 6.8. & 18.8; 5 on 26.8. and 2 daily 27.8. to 29.8. (P.B.O.); Swanage 8.8. & 14.8. (D.E.R.C.)

Pieris brassicae Linn. Large White. Portland strong movement in off sea noted 16.8. & 20.8. (P.B.O.)

Celastrina argiolus Linn. Holly Blue. Several observers commented on its scarcity this year.

Venessa atalanta Linn. Red Admiral. Portland 22.3. & 24.3; 11.5. & 12.5. Daily from 22.5. to 30.10. Visible movement in off sea included 6 on 60.6 & 'large numbers' on 17.9. (P.B.0.) Corfe Mullen 6.4. (A.H.D.)

Cynthia cardui Linn. Painted Lady. Very scarce this year. (A.H.D.) Portland 25.4. & 27.6; 12 between 7.8. & 27.8; 6.9; 3 in off sea on 11.9. (P.B.O.) 10 recorded between 21.6. & 4.9. (D.E.R.C.)

Lasiocampa trifolii D & S. Grass Eggar. Studland Heath. 18.8. (J.R.C.)

Drepana cultraria Fabr. Barred Hook-tip. East Lulworth 2 on 12.5. (N.H.)

Thera cupressata Geyer. Cypress Carpet. Swanage 1.7. (R.P.)

Selidosema brunnearia Vill. Bordered Grey. West Holme Heath 7.8. (N.H.)

Lomographa temerata D & S. Clouded Silver. Swanage 4 on 24.5; 19.7; (R.P.). Woolgarston 7 between 9.6. & 14.6; 3 between 26.6. & 28.6; 4 between 1.7. & 15.7; & 28.7. (R.B.).

Hylaea fasciaria Linn. Barred Red. Tyneham Wood 19.8. (N.H.).

Agrius convolvuli Linn. Convolvulus Hawk-moth. Portland 25.9. (P.B.O.); West Bexington 5 between 18.8. & 23.9; Hooke Park 14.8. (D.E.R.C.).

Macroglossum stellatarum Linn. Humming-bird Hawk-moth. Portland 27.4; 24.7. & 6.8. (P.B.O.) Shaftesbury 18.3. and Dorchester 1.8. (D.E.R.C.).

Hippotion celerio Linn. Silver-striped Hawk-moth. Coombe Keynes 14.10. (D.E.R.C).

Clostera pigra Hufn. Small Chocolate-tip. West Holme Heath 21.7. & 7.8. (N.H.).

Dicallomera fascelina Linn. Dark Tussock. West Holme Heath 21.7. (N.H.).

Thumatha senex Hb. Round-winged Muslin. West Holme Heath 21.7. (N.H.)

Coscinia cribararia Linn. Speckled Footman. Portland 1.7. (P.B.O.)

Euplagia quadripunctaria Poda. Jersey Tiger. Portland 15.8. (P.B.O.). West Bexington 10 between 10.8. & 20.8. (D.E.R.C.)

Meganola albula D & S. Kent Black Arches. Woolgarston 30.7. (R.B.)

Nola confusalis H.-S. Least Black Arches. East Lulworth 12.5. (N.H.)

Argrotis vestigialis Hufn. Archer's Dart. Studland Heath 14.8; 30 on 18.8. (J.R.C.).

Agrotis ipsilon Hufn. Dark Sword Grass. Swanage 2 on 23.4; 2 on 2.5; 24.5; 6 on 21.7. & 25.7; 7 on 7.8. & 8.8; & 4 on 25.9. (R.P.) Portland 49 between 15.4. & 5.5. 20 between 26.7. & 15.9. (P.B.O.). Woolgarston 21.4; 26.7; 27.7; 14.9. & 15.9. (R.B.)

Peridroma saucia Hb. Pearly Underwing. Swanage 15.7. (R.P.) Portland 17 between 12.9. & 27.9. (P.B.O.) Woolgarston 3 between 24.6. & 27.6. (R.B.).

Anarta myrtilli Linn. Beautiful Yellow Underwing. Studland Heath 14.8; 6 on 18.8. (J.R.C.).

Mythimna albipuncta D & S. White-point. Swanage 29.1. & 29.5. (R.P.); Portland 24 between 15.8 & 15.9. (P.B.O.); Woolgarston 20.9. (R.B.); West Bexington 3 between 7.6. & 15.9. (D.E.R.C.).

Mythimna vitellina Hb. The Delicate. Swanage 4.9; 2 on 8.9; 2 on 20.9; 25.9; 9 between 9.10. & 13.10; & 4.11. (R.P.); Portland 8 between 20.6. & 25.7; 13 between 12.9. & 28.9; 1 on 9.11. (P.B.O.); Woolgarston 7 between 27.6. & 26.7; 5 between 14.9. & 23.9. (R.B.); West Bexington 19 between 13.6. & 30.10 (D.E.R.C.).

Mythimna pudorina D & S. Striped Wainscot. West Holme Heath 21.7. (N.H.)

Mythimna straminea Treit. Southern Wainscot. Tyneham Wood 19.8. (N.H.)

Mythimna l-album Linn. L-album Wainscot. West Bexington 7 between 28.6. & 11.10 (D.E.R.C.); Tyneham 10.9. (N.H.).

Mythimna unipuncta Haw. White-speck. Swanage 5 between 9.10 & 11.10 (R.P.); Portland 3.10 (P.B.O.); West Bexington 10.10 & 11.10 (D.E.R.C.).

Trigonophora flammea Esp. Flame Brocade. Swanage 1.9 (R.P.)

Atethmia centrago Haw. Centre-barred Sallow. Tyneham 10.9. (N.H.)

Rusina ferruginea Esp. Brown Rustic. Tyneham 24.6. (N.H.)

Ipimorpha retusa Linn. Double Kidney. West Holme Heath 7.8. (N.H.); Studland Heath 14.8. (J.R.C.).

Archanara dissoluta Treit. Brown-veined Wainscot. Studland Heath 18.8. (J.R.C.)

Elaphria venustula Hb. Rosy Marbled. Tyneham 25.6. (N.H.)

Earias clorana Linn. Cream Bordered Green Pea. Studland Heath 14.8. & 18.8. (J.R.C.)

Colocasia coryli Linn. Nut-tree Tussock. East Lulworth 5 on 12.5. (N.H.)

Autographa gamma Linn. Silver Y. Swanage 194 recorded between 16.4. & 4.11. with peak of 59 on 25.9. (R.P.); Portland 518 between 14.4. & 9.11. with peak of 39 on 25.9. (P.B.O.); Woolgarston 22.4; 6 between 10.6. & 15.6; 40 between 14.7. & 8.8; 84 between 4.9 & 13.10; then 3 between 6.11. & 10.11. (R.B.); West Bexington 272 between 21.4. & 25.11. (D.E.R.C.)

Catocala electa View. Rosy Underwing. Portland 11.9. (P.B.O.)

LAND ARTHROPODS

N.R. Webb

As in former years, I have compiled this report mainly from records sent to the Dorset Environmental Records Centre and I am grateful to Richard Surry for his help in abstracting them. Some records have been sent directly to me while other have been obtained by abstracting the entomological journals. This report includes records from J. Boyer, R.R.A. Bratt, J.R. Cox, B. Edwards, J. Hinton, O. Hooker, M.H. Lock, A. Mahon, M. Martin, D. Pearman, A. J. Philpott, J.D. Powne, A. Rose, E. Rose, W.G. Shreeves, R.J. Surry, W.G. Teagle, A. Wass, N.R. Webb and P. White.

Orthoptera

There continues to be a steady flow of records for this order. The identification of the various species is relatively straight forward and there are several good texts available.

Oak Bush-cricket (*Meconema thalassinum*). Ridge, Swanage and West Stafford.

Great Green Bush-cricket (*Tettigonia viridissma*). Abbotsbury. Few records for this species in 1993.

Wart Biter (*Decticus varrucivorus*). No records received this year.

Dark Bush-cricket (*Pholidoptera griseoaptera*). Winyard's Gap,

Ridge, Higher Totnell, Woolcombe Down Farm, Blandford, Bloxwroth Down, Stoborough, Hodders Coppice, Ackling Dyke, Rodden and Garston Wood.

Grey Bush-cricket (*Platycleis albopunctata*). Boscombe.

Long-winged Conehead (*Conocephalus discolor*). Bloxworth Down, Stinsford and Blandford.

Speckled Bush-cricket (*Leptophyes punctatissima*). Ridge, Winyard's Gap, Toller Porcorum, Higher Totnell and Herston.

Common Green Grasshopper (*Omocestus viridulus*). Valley of Stones.

Common Field Grasshopper (*Chorthippus brunneus*). Winyard's Gap, Valley of Stones, Higher Totnell, Abbotsbury and Poxwell.

Meadow Grasshopper (*Chorthippus parallelus*). Winyard's Gap, Toller Porcorum, Valley of Stones, Hogher Totnell, Warmwell Heath, Poxwell, Coombe Heath, Rodden and Knowleton Circles.

Odonata

The transect recording at Studland Heath National Nature Reserve by J R Cox, which began 16 years ago, continued during 1993. These observations now make up a most important body of data. During 1993 he noted eighteen species on the transects, the same number as last year. A number of interesting changes were noted and these are detailed below.

Small Red Damselfly (*Ceriagrion tenellum*). An increase of just less than 50% on last year's count taking the index to above the 1978-92 average. First seen 8 June; last seen 14 August.

Azure Damselfly (*Coenagrion puella*). After last year's unprecedented rise, numbers dropped but remained well above the average. First seen 1 May; last seen 4 July.

Common Blue Damselfly (*Enallagma cyathigerum*). A slight drop for the third season running to numbers which might be considered average. First seen 8 May; last seen 26 September.

Large Red Damselfly (*Pyrrhosoma nymphula*). Little change from last year; numbers about average. First seen 15 April; last seen 21 July.

Common Blue Damselfly (*Ischnura elegans*). A slight fall in numbers to a little below average. First seen 3 May; last seen 19 September.

Emerald Damselfy (*Lestes sponsa*). A slight decrease for the third season in a row. Numbers seem to have been low for the last six years. First seen 4 July; last seen 24 August.

Hairy Dragonfly (*Brachytron pratense*). A slight increase on last year. This species is the most numerous hawker on the reserve. First seen 25 April; last seen 8 June.

Southern Hawker (*Aeshna cyanea*). A slight fall from last year's numbers bring it to the lowest recorded count. First seen 22 July; last seen 19 September.

Common Hawker (*Aeshna juncea*). Not recorded on the transect this year. Continues to be the least common hawker at Little Sea, only sighted once during 1993.

Migrant Hawker (*Aeshna mixta*). A slight drop in numbers but still the next-most common hawker after the Hairy Dragonfly. First seen 1 August; last seen 10 October.

Brown Hawker (*Aeshna grandis*). None seen during 1993.

Emperor Dragonfly (*Anax imperator*). One seen 4 July and a female egg-laying on 7 August.

Downy Emerald Dragonfly (*Cordulia aenea*). A drop of about 50% on last year's numbers brought this species to the third lowest count since 1978. First seen 4 May; last seen 15 June.

Black-lined Skimmer (*Orthetru cancellatum*). A fall in numbers of almost two-thirds of last year's count taking it to the third lowest since 1978. First seen 8 June; last seen 15 August.

Keeled Skimmer (*Orthetrum coerulescens*). Little change from last year but numbers seen were small. First seen 15 June; last seen 15 August.

Four-spotted Chaser (*Libellula quadrimaculata*). A rise of about 30% on last year's numbers, but this figure is still way below the average figure for 1978-90. First seen May; last seen 14 August.

Broad-bodied Chaser (*Libellula depressa*). Sighted only once on 19 May.

Black Darter (*Sympetrum danae*). Nearly double last year's figure but occurs in only small numbers. First seen 26 June; last seen 17 September.

Ruddy Darter (*Sympetrum sanguineum*). Rather more than half last year's numbers, represents about an average figure for the years 1978-92. First seen 15 June; last seen 6 September.

Common Darter (*Sympetrum striolatum*). Slightly less than half last year's count which is lower than average. Some of these low counts may be attributable to the unsettled weather pattern, it was hard to find days with optimum conditions for recording. First seen 13 June last seen 12 November.

Coleoptera

Coccinellidae (Ladybirds)

The number of records for this easily identified family of beetles has declined markedly this year.

2-spot Ladybird (*Adalia 2-punctata*). Sandsfoot Castle, Windmill Barrow Farm and Frome St Quintin.

10-spot Ladybird (*Adalia 10-punctata*). Shillingstone.

7-spot Ladybird (*Coccinella 7-punctata*). Stoborough and New Barn.

Pine Ladybird (*Exochromus quadripustulatus*). Wareham.

Orange Ladybird (*Halyzia 16-guttata*). Fontmell Down.

22-spot Ladybird (*Psyllobora 22-punctata*). Woodsford.

Cream-spot Ladybird (*Calvia 14-guttata*). Moreton Heath, Oak Tree Farm and West Stafford.

14-spot Ladybird (*Propylea 14-punctata*). Northport and Carey.

Eyed Ladybird (*Anatis ocellata*). Stubhampton Wood.

Other beetles

Heather Beetle (*Lochmaea suturalis*). Good numbers reported in the Purbeck area and there are indications that this will lead to a large outbreak. The last such outbreak was in 1979/80 which resulted in the defoliation and death of heather (*Calluna vulgaris*) plants at a number of localities on the Dorset heaths.

Glow Worm (*Lampyris noctiluca*). Moreton Heath, Clubman's Down, Jerry's Hole, West Bexington and Charminster. Rather more sightings this year but we still have a very poor picture of the distribution of this species in the County.

Green Mint Beetle (*Chrysolina menthastri*). Stoborough.

Timarcha tenebricosa. Powerstock Common

Pyrochora serraticornis. Herston.

Lixus scabricollis. This weevil was reported from Portland Harbour 13 September 1991. Previously known only from the Isle of Grain, Kent. See Cooter, J. 1992. *Lixus scabricollis* Boheman (*Coleoptera: Curculionidae*) in Dorset. *Entomologists' Gazette*, 43, 54.

Apion semivittatum. This weevil which is known mostly from south-eastern England was reported from Dorchester on 29 September 1991. See Morris. M.G. 1992. *Apion semivittatum* Gyll. (Col: Apionidae) in Dorset. *Entomologist's Monthly Magazine*, 128, 108.

Hymenoptera

Hornet (*Vespula crabro*). Sighted at Stoborough and Fifehead Wood with a nest reported from Furzebrook. All records for this species are welcome especially in the light of the presence of *Dolichovespula media* in the County. There have been several reports of nests of *D. media* from the east of the County and the current position is summarized below by S P M Roberts.

Giant Wood Wasp (*Urocerus gigas*). Corfe Castle and West Stafford

Diptera

E T and D A Levy have, as usual, provided their own report on Dorset Hoverflies (see below). Of particular interest are the records for *Brachyopa insensilis* and *Myolepta luteola* the latter being a Red Data Book Category 3 (rare) species.

Spiders Araneae

Argiope brunnichi Reported from Challow Farm at Corfe Castle.

DOLICHOVESPULA MEDIA (RETZIUS)

S.P.M. Roberts, 22 Bell Vue Road, Salisbury, Wilts. SP1 3YG

Dolichovespula media (a species of social wasp) was reported as new to Dorset in 1992 in these Proceedings. In the past year there have been further records of the species from Dorset and these are listed below along with a review of the further range extension within Britain as a whole.

Nationally the species has continued to expand its range northwards, albeit rather slowly, in 1993, with new county records from Nottinghamshire and Lincolnshire. There has been little westward extension of range, but records from Oxfordshire, Wiltshire and Dorset have increased considerably. The species has also been reported from the Isle of Wight for the first time (G.R. Else, 1993).

Perhaps the most significant new Dorset record is of a deserted nest

collected in the autumn of 1991 from a Maple tree in a garden in West Moors (Mrs B. Sayers). This predates the previous earliest record by some six months and puts its arrival in Dorset back by a year.

In addition to the West Moors nest, further records for the species are as follows: Broadstone; May and early June 1993, post-hibernation queens collecting wood pulp from garden palings (A.J. Philpott). Child Okeford; July 1993, a nest in a garden, reported in the Blackmore Vale Magazine (D. Holdeman). Merley; 4 July 1993, nest found in a suburban garden and destroyed (J. Kelly). Hinton Martell; 8 July 1993, A nest found in a beech hedge and destroyed (I. Selby). Winterborne Houghton; 11 July 1993, workers at *Berberis* flowers (Dr T. Norman). Corfe Mullen; 18 July 1993, A nest in a *Japonica* bush (Mrs P. Dovey). Charminster; 23 July 1993, nest found in a garden and destroyed (C. Turner; record via G.R. Else). Holwell; August 1993, workers at honeydew on a Sallow bush (V.L. Breeze). Broadstone; August 1993, workers and an active nest in a garden (A.J. Philpott). Osmington; 21-23 August 1993, workers at flowers of *Symphoricarpos rivularis* (J.C. Felton). Wimborne Minster; 6 September 1993, an active nest at Dean's Grove House (J. Hawker). Sturminster Marshall; October 1993, a deserted nest constructed in a *Cornus* bush (A. Cottam). Merley; October 1993 a deserted and dislodged nest found in a garden (J. Driver). Colehill; 21 October 1993, a deserted and dislodged nest found in Long Lane (D. Hebditch and S. Spicer). Stoborough; October 1993, a nest in a garden (Dr N.R. Webb).

There have been reports in both the national and local press of *Dolichovespula media* and the potential danger arising from stings. As the species nests in trees and shrubs it is more likely to be inadvertently disturbed (by hedge trimming) than the other social species, and when disturbed it can attack. Nests are best left if at all possible, but if there is an absolute need to destroy the nest, professional help should be sought.

I am grateful to all the people named above for either bringing or sending me specimens or nests for determination in this last year. I must also thank G.R. Else for sending on the record sent to him at the Natural History Museum, London.

Else, G.R. (1993). *British Wildlife* 5 No. 2, p.121.

DORSET HOVERFLY REPORT 1993

A total of 94 species was recorded this year and the more scarce and unusual ones are listed below. We are grateful to M.J. Parker and A. Wass for their lists and congratulate them on their new interest in the finding and rearing of Syrphidae larvae, which has already revealed one species considered rare in the county.

Records

Platycheirus occultus	West Compton	20.6.1993	(MJP)
Chrysotoxum vernale	Oakers Wood	22.5.1993	(MJP)
Xanthandrus comtus	Lodmoor	26.9.1993	(ETL)
	Oakers Wood	16.10.1993	(AW)
Spaerophoria taeniata	Pentridge	28.8.1993	(AW)
Brachyopa insensilis	Up Cerne		(MJP)
	(2nd county record)		
	(reared from larvae determined by G. Rotheray)		
Cheilosia griseiventris	West Compton	3.5.1993	(MJP)
Cheilosia honesta	West Compton	3.5.1993	(MJP)
	Oakers Wood	22.5.1993	(MJP)
Neoascia meticulosa	West Compton	20.6.1993	(MJP)
Heringi heringia	Yellowham Wood	11.5.1993	(AW)
Eumerus ornatus	Oakers Wood	1.6.1993	(MJP)
Myolepta luteola	Langton Matravers	12.6.1993	(AW)
	(3rd county record)		
Chrysogaster macquarti	Slepe Heath	1.8.1993	(AW)
Brachypalpus laphriformis	Oakers Wood	24.4.1993	(MJP)
	Yellowham Wood	11.5.1993	(AW)
Pipiza bimaculatus	Yellowham Wood	11.5.1993	(AW)
Xylota abiens	Oakers Wood	1.6.1993	(MJP)

It is pleasing to note that the Yellowham Wood area is still proving a good locality for hoverflies. This is despite the widening of the A35, which destroyed some of the special spots where Dave and I recorded in the 1980s.

Dorset Hoverfly maps are being revised annually and all hoverfly records are welcome to continue this task. If on consulting the maps you find your area is not yet covered, please send in records or even photographs of hoverflies if you can.

ET & DA Levy
9 Chilton Grove
Yeovil
Somerset
BA21 4AN

WEEVILS OF THE GENUS *CATHORMIOCERUS* IN DORSET (COLEOPTERA, CURCULIONIDAE).

M.G. Morris

Cathormiocerus are small, obscure, ground living weevils which are polyphagous, though often associated with species of *Plantago* (plantains). Zoogeographically the genus is particularly interesting, with all the 90 or so known species restricted to the extreme west of Europe. Although a few species are recorded from the Netherlands, Italy and Madeira, these areas are at the edges of the range of species in the genus. Most of the species have been recorded from Spain and, to a lesser extent, North Africa, but eleven are known from France; none is recorded from central Europe.

Five species of *Cathormiocerus* inhabit the British Isles and all are restricted to the south coast, particularly the south-west peninsula, though one has been found only on the Isle of Wight. Unusually for Britain, one of the species, *C. britannicus,* is endemic. All the British species are regarded as threatened and all are included in the *British Insects Red Data Book* (Shirt, 1987), two as Endangered, two as Vulnerable and only one as Rare. As far as is known, all the British species are parthenogenetic, no males ever having been recorded. Parthenogenesis is by no means uncommon in the group of ground-living weevils to which the genus belongs.

Rev. E.J. Pearce's account of the beetles of Dorset (1926) and its supplements (1927, 1930, 1935) contain no references to the occurrence of species of *Cathormiocerus* in the county. However, there are more recent records of two species of these interesting and rare weevils inhabiting Dorset. Both are mentioned briefly in *Endangered Wildlife in Dorset. The County Red Data Book* (Mahon & Pearman, n.d.).

C. maritimus Rye. This is one of the two British species which have very distinct antennae, the scape having a conspicuous swelling, or node, near its base. There is a specimen of this species in the E.C. Bedwell collection in the Norwich Museum which has the following data: Studland, 22.iv.1935. It is likely that this weevil was taken by Bedwell himself, as data labels for other beetle specimens bear the names of the collectors when this is not Bedwell.

Such is the obscurity of these weevils and the difficulty in finding them that it is quite possible that the species still occurs in the area.

C. britannicus Blair. The occurrence of this species in Dorset is surprising. As stated above, it is endemic to the British Isles, being previously known only from Cornwall, the Lizard area being the best-known locality. The species was described in 1934 and, although distinct, it is closely allied to *C. myrmecophilus*, the most widely distributed of our species.

On 7 May 1992 I collected a single specimen from vegetation growing on a roadside bank near Furzebrook Research Station. On 30 April and 4 May 1993 I collected single examples in the same way. Both were kept alive for observations on feeding and egg-laying. One weevil died in December 1993, but the other was still alive at the end of January 1994. Both examples had been fed mainly on Ribwort Plantain, *Plantago lanceolata*. Neither weevil laid any eggs, a circumstance which probably contributed to their longevity. The Furzebrook locality for *C. britannicus* is not typical for the species, which in Cornwall is usually found nearer to the coast, and it is quite likely that this rare weevil will be found elsewhere in the vicinity.

Acknowledgements
I thank the curatorial staff of the Norwich Museum for facilities to study the Bedwell Collection and English Nature for financial support to a project of which the Dorset observations on *Cathormiocerus* are a small part.

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AMPHIBIANS

Robert V Skinner

The amphibian reports received by the Dorset Environmental Records Centre during 1993 are included in tabular form at the end of this section, together with the records from the Studland Heath NNR for the year 1992 which were unavailable last year.

Smooth Newt *Triturus vulgaris* - L.
See DERC report at the end of this section.

Palmate Newt *Triturus helveticus* - Razoumowski.
There were only two records from the Studland Heath NNR, one on 9 October and one on 12 November, both in SZ0384. (J R Cox). This species is the dominant newt in a series of ponds in a Parkstone garden where the number of Smooth newts has declined over the last ten years. The males actively display to the females during April and egg laying follows in May. (R V Skinner).

Crested Newt *Triturus cristatus* - Laurenti
See DERC report at the end of this section.

Common Frog *Rana temporaria* - L.
The earliest date for a garden pond in Corfe Mullen was 29 January, when at least two were seen. First spawn was observed on 9 February. On the 15 February frogs were calling vociferously at 10pm, six were seen in one pond and spawn in another. A neighbour's pond also had two good colonies. The last sighting was on 22 April when a 2" specimen was seen in a garden pond in Corfe Mullen. (A H Dunn). The first adults arrived at a garden pond in Parkstone on 22 January and one clump of spawn was seen on 23 January. By 30 January there were at least 20 clumps of spawn present. The adult frog population was then nearly wiped out by an early morning visit of a heron and the spawn suffered from the attentions of a pair of mallard that flew down on two occasions. (R V Skinner). One adult seen on 3 May on Studland Heath NNR. (S J Morrison). One froglet, born this year, seen on 21 July and two young specimens were noted on 19 August. 1Km squares SZ0284 & 0384. (J R Cox).

Common Toad *Bufo bufo* - L.
None seen in garden pond in Corfe Mullen this year. (A H Dunn). The first male to appear in a Parkstone garden was on 4 February. By 8 March there were many adults and much spawn in the pond. Most of the spawn hatched this year, whereas last year nearly all the spawn was infertile. (R V Skinner).

The earliest date for Studland Heath NNR was 10 January and the last date was the 19 August. A few toadlets were also seen. SZ0284 & 0384 (J R Cox).

The following table lists the amphibian records for 1993 received by the Dorset Environmental Records Centre, Dorchester.

The following amphibian reports are for the Studland Heath NNR for the year 1992 and which were not available in 1993. (J R Cox).

Palmate Newt *Triturus helveticus* - Razoumowski.
On the 12 February 1992, between 2230 2300 hours, many were seen crossing the ferry road (from east to west) by Daniel and Joseph Davies who were out training at that time. Because the last ferry was due, they stopped and picked up about 60 individuals and placed them on the roadside verge. They said they had done the same thing in 1991! The weather was very mild and misty. How far these newts had travelled and where they had been hibernating is not known. (SZ0285).

On April about 25 had been caught by five young lads from pools on Spur Bog. (SZ0284). All the newts were put back after the lads had been spoken to (kindly!) by JRC.

Common Frog *Rana temporaria* - L.
On two occasions in September "small" individuals were seen on Studland Heath NNR near the SW corner of Little Sea. (SZ0284 & 0384).

SPECIES	SITE	GRID REF.	RECORDER	DATE
Smooth Newt	Bagber	ST769156	E D V Prendergast	26.4.93
	Warry's Plantation	ST698100	E D V Prendergast	19.6.93
	Bagber	ST69156	E D V Prendergast	7.7.93
Crested Newt	West Bexington	SY5386	H J M Bowen	1993
	Winterborne Kingston	SY8497	H J M Bowen	All year
	Bagber	ST769156	E D V Prendergast	26.4.93
	Bagber	ST769156	E D V Prendergast	3.5.93
Common Frog	Dorchester	SY6989	E M Keats	10-27.1.93
	Beaminster	ST496021	A Mahon	2.2.93
	Winterborne Kingston	SY8497	H J M Bowen	5.3-1.9.93
	Woolcombe Down Farm	SY550959	A Mahon	20.3.93
	Dorchester	SY703898	N Matthews	12.6.93
	Povington Ranges	SY884824	E D V Prendergast	31.7.93
	Dorchester	SY96903	N Matthews	4.8.93
	Tyneham Valley	SY8782	E D V Prendergast	30.8.93
	Dorchester	SY689892	N Matthews	13.10.93
Common Toad	Swanage	SZ028797	D Leadbetter	5.2.93
	Dorchester	SY703898	N Matthews	8.6.93
	West Ringstead	SY7481	H J M Bowen	24.7.93

BIRDS IN DORSET 1993

Paul M. Harris

As is usually the case, the new year began uneventfully. The only real birds of note in January were the adult Iceland Gull and one or two Kentish Plovers wintering in Weymouth.

There was more excitement however in February with several sightings of a Golden Eagle in the County, but the bird must surely have been an escapee. The first Wheatear usually announces the arrival of spring and this year the first bird was seen on the 27th of the month. As usual a flock of Bewick's Swans spent the winter in the Frome Valley and this year included four birds bearing plastic neck rings. Subsequent enquiries revealed that one had been ringed in Holland and the other three in the Pechora Delta in Russia.

March was notable for a sighting of a Rough Legged Buzzard near Blandford, an extreme rarity in Dorset, and the first Garganey mid-month.

Most interesting birds in the spring tend to be overshoots from the continent and this year produced Alpine Swift, Serin, Bee-Eater, Red-Footed Falcon, Red Kite, and several Woodchats and Subalpine Warblers. The most interesting bird of the spring was a Great White Egret at Lanton Herring on the Fleet, the first County record for many years.

June produced the now annual singing Greenish Warbler on Portland and July the even more predictable inflex of Little Egrets with possibly as many as fifty birds present scattered around the county. Surely they will soon be breeding somewhere?

The albeit brief highlight of August was a Black Stork on Lodmoor RSPB reverve. Interestingly this bird was seen previously in Cornwall and Devon and subsequently in Hampshire and Sussex. August was also notable for an arrival of Icterine Warblers with possibly as many as ten birds being seen. September was a vintage month with the County's second ever record of Yellow-Breasted Bunting on Portland, a Lesser Yellowlegs on Lodmoor, and a Buff-Breasted Sandpiper with a flock of seven Dotterel at White Nothe. There were also exceptional numbers of migrant Honey Buzzards seen.

October was generally poor with a Ferruginous Duck at Abbotsbury the best bird until the very end of the month when a Red-Flanked Bluetail was found in Winspit valley on the Purbecks. Undoubtedly bird of the year, the Bluetail performed well to several thousand admirers. A County first and only the thirteenth record ever for Britain.

The year ended with a Dark-Eyed Junco from America being trapped in a garden in Dorchester and three Little Buntings trapped at Lewell nearby. Finally, the Spoonbill returned to winter on Brownsea Island.

MAMMALS

E.M. Keats

All records submitted to the Dorset Environmental Records Centre and those sent to me are very useful and are filed at DERC where they help to improve the picture of distribution of different species in the County. With rare species identification details are required and it is a great help if grid references for all observations are supplied. Only a small number of the records sent can be printed in the report. Mr R Surry, Keeper of Records at DERC has prepared the maps with records received until the end of 1993.

In 1980 DERC published a series of maps based on 1 Km squares showing records available for each species at that time. The introductory mammal map had many blank squares where no records of mammals had been submitted. Many records have been submitted since but there are probably some 1 Km squares still without a single mammal record. If you have seen any of our wild mammals in your area or while you have been out and about please let DERC have the records, not just rare species. Records can be sent to DERC, County Planning Dept, County Hall, Dorchester, or to the Dorset County Museum, High West St, Dorchester. The Scientific names are as listed in *Finding and Identifying Mammals in Britain* 2nd edition 1989 by G B Corbet, British Museum (Natural History). The marine mammals are listed in *British Whales Dolphins and Porpoises* 1976 by F C Fraser, British Museum (Natural History).

In addition to species mentioned elsewhere in the report the following species were reported in 1993: - Mole *Talpa europaea* Lesser horseshoe

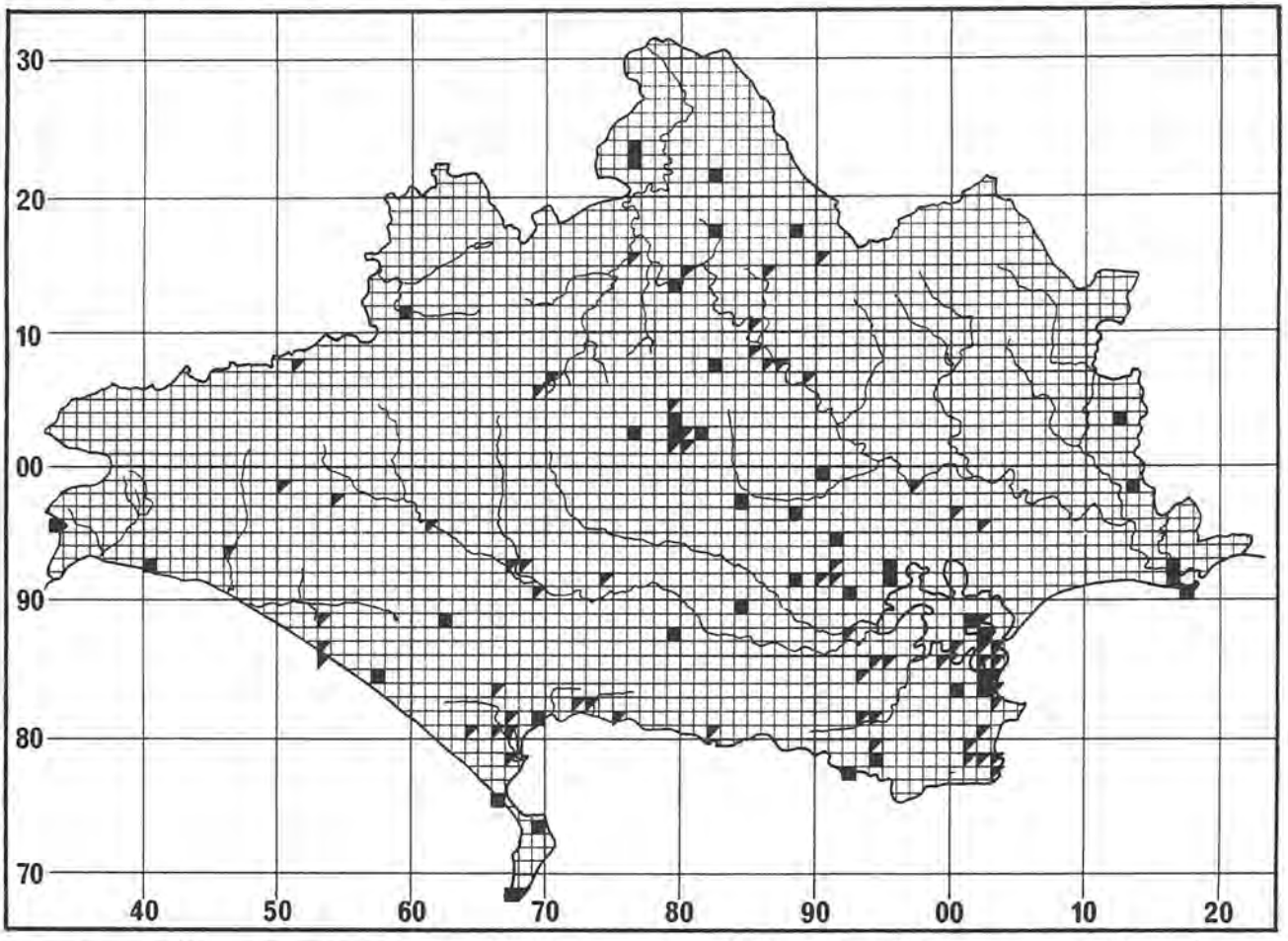


Figure 1. Pygmy Shrew, Sorex minutus. *Half-filled squares - pre 1980 records, Filled squares - post 1980 records.*

bat *Rhinolophus hipposideros* Noctule *Nyctalus noctula* Brown long-eared bat *Plecotus auritus* Grey Squirrel *Sciurus carolinensis* Bank Vole *Clethrionomys glareolus* Water Vole *Arvicola terrestris* Dormouse *Muscardinus avellanarius* Stoat *Mustela erminea* Badger *Meles meles* Otter *Lutra lutra* Sika deer *Cervus nippon* Roe deer *Capreolus capreolus* Pilot Whale *Globicephala melaena*.

Hedgehog *Erinaceus europaeus*. The death toll of this species on roads is very high however live individuals are recorded. Is this species really concentrated in towns and villages with fewer in open country? 13 reports were submitted for 1993.

Common Shrew *Sorex araneus* 28 were caught by H J M Bowen's cats in the Winterborne Kingston area, 2 were recorded in Purbeck, at Encombe and Worth Matravers and 1 was found dead on Broadstone Golf Links.

Pygmy Shrew *Sorex minutus* 32 were caught by cats in Winterborne Kingston and 1 by a cat at Encombe. Has anyone else recorded this species being caught by their cats? Can anyone find some more records for this species?

Water Shrew *Neomys fodiens*. There were no reports in 1993 and only 19 new 1 Km squares had records from 1980 until 1993. The map shows that this species has been reported widely in the county but many more records are needed.

Bats.

13 species of bats were recorded in Dorset in 1993. Barbastelle *Barbastella barbastellus* and Bechstein's bat *Myotis bechsteinii* were found in the east of the county. 5 species were recorded in December in the Purbeck hibernation roosts, Greater horseshoe *Rhinolophus ferrumequinum*, Whiskered/Brandts' bat *Myotis mystacinus/brandtii*, Natterer's bat *Myotis nattereri* , Daubenton's bat *Myotis daubentonii* and Serotine *Eptesicus serotinus*. The Serotine was only the third underground record of this species. A live adult female of this species with white fur but with dark nose, ears and wings, an aberrant form, was found at Little Bredy, in May. She had given birth in the past. A similar one was found in the Isle of Wight 9 years ago but this is the first mainland record of this form. A roost in north Dorset, probably a breeding roost had 5 dead and 2 live Grey long-eared bats *Plecotus austriacus*.

Pipistrelle *Pipistrellus pipistrellus*. A central Dorset breeding roost produced the largest count since counting began at this roost, on 29.5.1993 522 bats left the roost between 9.30pm and 10.10pm. Counts on two further dates in June were 520 and 496.

Brown Hare *Lepus europaeus*. Records have been submitted for 4 squares where hares have not previously been reported, 2 in West Compton, 1 near Winterborne Kingston and 1 near Spetisbury.

Rabbit *Oryctolagus cuniculus*. Cats near Winterborne Kingston took 18 rabbits in 1993. There were 11 other reports in the year, I am sure rabbits are well distributed so many more records will be welcome.

Red Squirrel *Sciurus vulgaris*. Mrs Parkyn reports the records noted by the National Trust volunteers, on Brownsea Island. 5 Red Squirrels were seen wearing collars but the results of the survey of density of Red Squirrels in Pine woods are not yet available. 390 squirrels were counted, 44 groups of 2, 11 groups of 3 and 5 groups of 4. 2 were found dead. A number were seen in or by litter bins and 1 feeding on crisps.

Wood mouse *Apodemus sylvatucs* 2 mice were seen feeding on a peanut basket outside the kitchen window of a cottage at West Stafford. 22 were caught by the cats at Winterborne Kingston and 1 built a nest in a bat box on a nature reserve.

Harvest mouse *Micromys minutus*. This species plus nest were recorded at Winterborne Kingston and the cats caught 2.

Common (Brown) Rat *Rattus norvegicus*. This species has been seen as road casualties and 18 were cuaght by the cats at Winterborne Kingston.

Fox *Vulpes vulpes*. Many reports have been submitted of dead foxes on the roads, cubs as well as adults and some reports of live sightings.

Weasel *Mustela nivalis*. Reports were submitted for 2 1 Km squares where there had been no records before, West Compton and 1 caught by

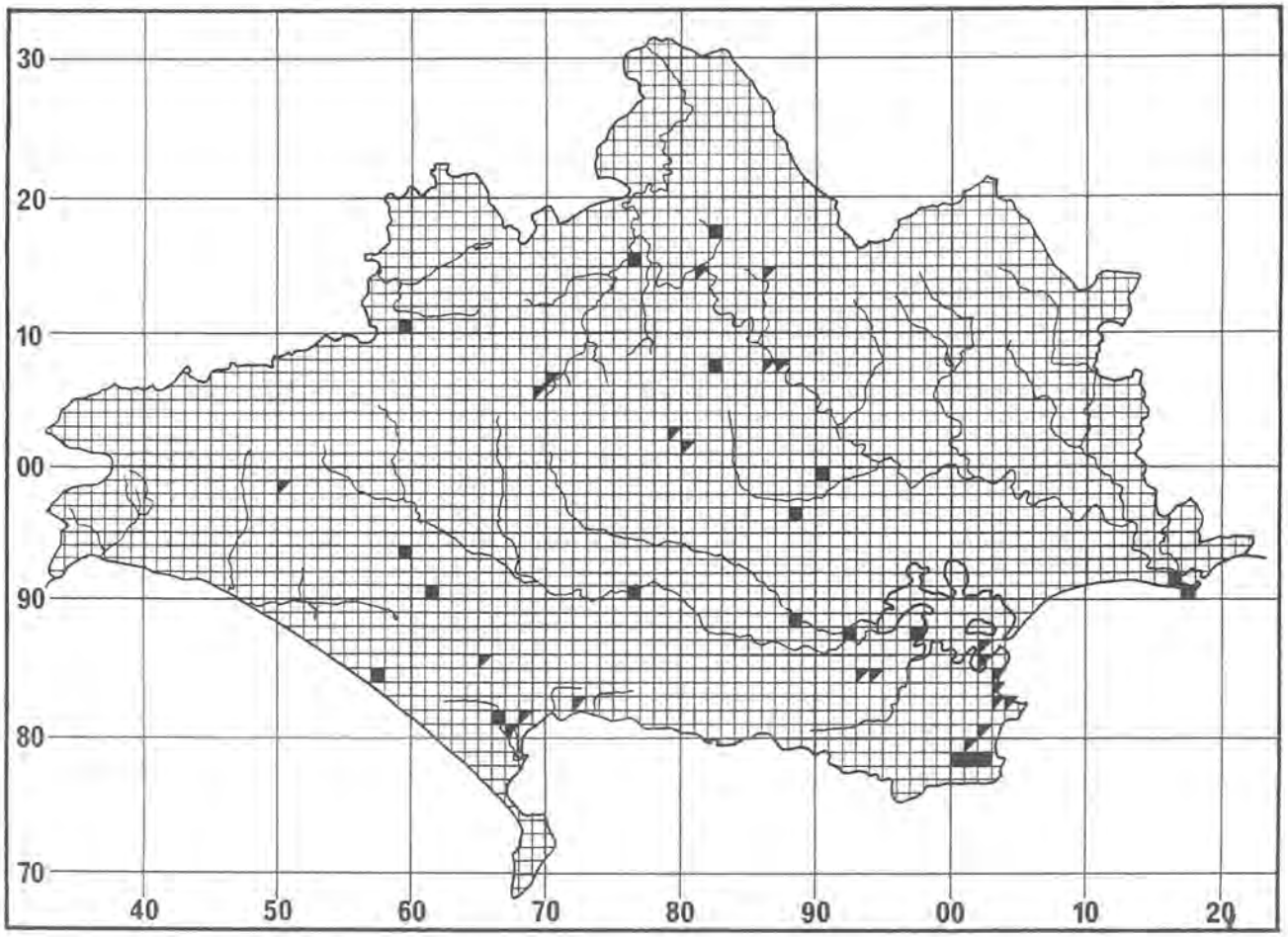


Figure 2. Water Shrew, Neomys fodiens. *Half-filled squares - pre-1980 records. Filled squares - post 1980 records.*

cats near Winterborne Kingston.

Fallow deer *Cervus dama*. 2 reports have been submitted for this species in the west of the county but it may be more widely distributed than the map suggests from past records. Can you fill in some of the blank squares in the likely areas of the county?

Seal species. 7 single sightings were recorded up until April by the Durlston Country Park Marine Watchers.

Bottle-nosed Dolphin *Tursiops truncatus*. This species was recorded off the Purbeck coast in January, February, March and April by the Mrine Watchers and other unidentified dolphins were also reported.

Common Dolphin *Delphinus delphis* A male Common Dolphin was found in poor condition on mudflats in Christchurch Harbour, it was transported to Weymouth Sea Life Centre and cared for and after about two weeks he had recovered well and was released about 5 miles out from Weymouth shore. A few days later he was seen by swimmers off the coast of Portland. This is only the second stranded dolphin in the UK to be successfully rescued and returned to freedom. I am grateful to the Weymouth Sea Life Centre for supplying a fuller report in the 5th issue of *Seawatch*.

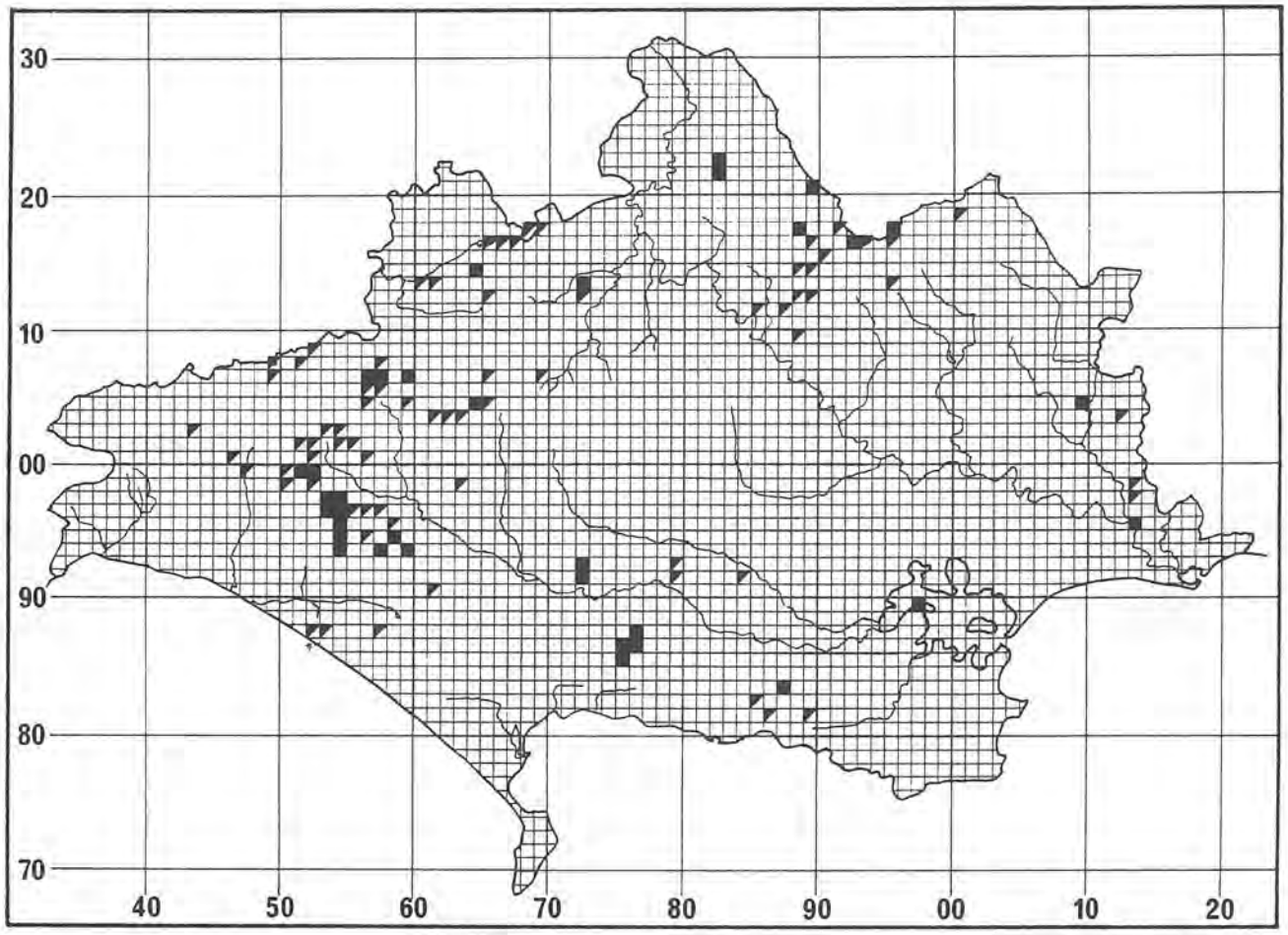


Figure 3. Fallow deer, Cervus dama. *Half-filled squares - pre-1980 records. Filled squares - post 1980 records.*

Obituaries

PAMELA MARY CUNNINGTON
13 January 1926 - 18 May 1993

Pamela Cunnington was born on 13 January 1926 in Coggeshall, Essex, the only child of Humphrey Cunnington, an officer in His Majesty's Customs and Excise, into a family with a strong tradition of teaching. Architecture was a passion from her youth; she was introduced to it by an interest in old churches inspired by her grandfather who, though not an architect, would probably have described himself as an ecclesiologist. And this led to an interest in other old buildings including, of course, houses.

During the war she was evacuated to Devonshire and Gloucestershire, finishing her school education at Cirencester Grammar School with 9 distinctions in the Schools Certificate. She started her architectural training immediately, in 1942 at the Brixton School of Building, followed between 1945 and 1949 by evening classes at Regent Street Polytechnic. In 1950 she was elected an Associate of the Royal Institute of British Architects, having gained a distinction for her final examination thesis 'The Development of Modern English Church Design'.

The springboard for the career which she was to carve out for herself as an architect specialising in historic buildings was a 6-month Lethaby Scholarship, one of five awarded in 1951, for the first time since the war, by the Society for the Protection of Ancient Buildings. As a Lethaby scholar she was fully exposed to the influence of the Society, working all over the country in the offices of great figures like John MacGregor, Marshall Sisson, Alan Reed and David Nye, gaining first-hand experience of conservation methods, materials and craftsmanship of high standard. Donald Insall, one of the other 1951 scholars, has recalled 'From our architect-mentors, steeped in the philosophy of the Society, we absorbed ideas new and yet old, unacademic yet total truths. Buildings, we began to realise, have a biography. They drink in character from their occupants, from the elements, and from time'. On these foundations Pamela built, gaining a wide experience of historic buildings and developing an exceptional talent for unravelling their historical and architectural development. She had a remarkable eye for archaeological detail and a flair for making accurate measured drawings.

Between 1953 and 1969 Pamela ran her own practice from 59 Great Ormond Street, London, next to SPAB's headquarters, in the same building as John MacGregor with whom she had worked. She specialised in work on churches and other historic buildings, mainly in Kent and East Anglia. Two commissions in King's Lynn she used to recall with pleasure, for proud Pamela never was: Thoresby College in Queen Street and Hampton Court in Nelson Street, a large timber-framed building which she had surveyed with two other Lethaby Scholars in 1951; in the depth of a bitter winter, according to Monica Dance then Secretary of SPAB, with ice-floes to be seen going in and out of the Wash with the tide.

Ill health caused her to give up her practice in 1969 and move to Dorset as Historic Buildings Officer for the County Council, a post she held until 1986 when she retired. I first got to know her in 1975 and together we looked at many old houses. Her quiet, and to some, slightly shy character concealed a dry sense of humour which could be nudged into the open by a gentle tease. Her enthusiasm often bubbled to the surface, as when an outwardly rather uninteresting house turned out to be much older than expected. To give only one example, - an early 19th-century red-brick thatched cottage revealing its origins as a timber-framed open hall house of cruck construction and early 16th century in date.

Pamela's investigations, like all her work, were thorough and painstaking, paying great attention to detail. She always insisted on inspecting roof spaces, however small the trapdoors or steep the ladders. Many house owners were often puzzled by her earnest examinations of cupboards, floor-boards and chimneys, but as the history of their house began to emerge they became more and more interested, were taught very gently about how the house should be cared for and encouraged to take appropriate action. Very soon after visits Pamela's drawn-up survey would be sent off (she was a speedy and very competent draughtsman) with a detailed summary of her findings.

In the harsher world of property developers and commercial pressure, when it came to defending historic houses from demolition, unacceptable alterations or additions, Pamela's quiet exterior hid a determination of steel and forceful tenacity which few developers found they had the stamina to overcome.

Pamela was much in demand as a lecturer for the WEA and Bristol University's Department for Continuing Education, as a leader of guided walks and as the organiser of lecture programmes, courses and tours, particularly those for the Historical Fellowship of which she became President. Every member of her audiences was invariably struck by her simple delivery and the self-effacing way in which the full range of her knowledge and practical experience was shared. It was a newspaper report of one of her talks, entitled 'How old is your house', that caused her to be sought out by a publisher. The happy and successful outcome of that encounter launched Pamela into a career as a writer, with four books published in ten years: *How old is Your House?* (1980), *Care for Old Houses* (1984), *Change of Use* (1988) and *How Old is that Church?* (1990). They are all written in a pleasant and readily accessible style and demonstrate the extraordinary breadth of her knowledge of

Pamela Cunnington (right) with Janet Locke, another Lethaby Scholar, at Wingfield Castle, Suffolk in 1951.

historic buildings and her personal crusade for their proper respect and sensitive conservation.

Pamela's humility and learning so lightly borne accounts for the fact that her significant contribution to the understanding and conservation of historic buildings has not received the recognition it undoubtedly deserves. But the buildings that survive, that are loved and cherished are sufficient testimony of her dedicated and single-minded endeavours. And her books will continue to reach a wide public and generate understanding and enthusiasm for many years to come. As she herself wrote:

> *We have come a long way from those Saxon invaders who cared so little for Roman buildings, and from medieval builders who so confidently destroyed older work, believing they were creating something finer. Some might say that the pendulum has swung too far in the opposite direction, and that preoccupation with the past shows a lack of confidence in ourselves. There may be some truth in this, but I prefer to think that perhaps we have become humbler and less arrogant, more ready to appreciate the work of our predecessors. But if we are to continue to take a strong line in preserving the past, I think it is probably just as important to see that the buildings and towns we are creating today will be worthy of equal care by our successors.*

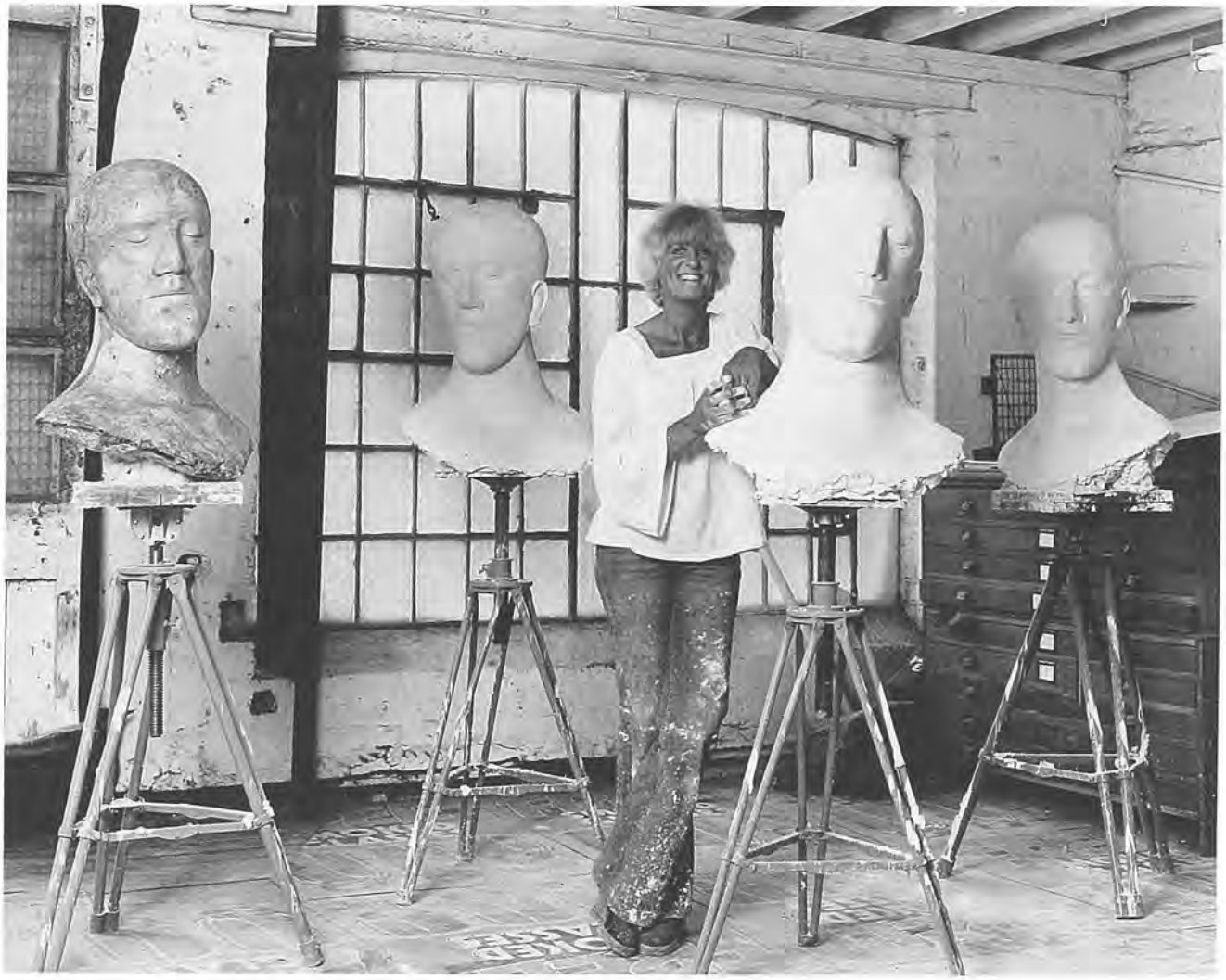
Pamela was elected FRSA in 1971, was on the Executive Committee of the Dorset Historic Churches Trust from 1984 until her death, served on the Diocese of Salisbury's Redundant Churches Uses Committee for many years and had been a member of the Society's Council from 1986.

L.J. Keen

DAME ELISABETH FRINK (1930-93) AND ALEX CSÁKY (1921-93)

Lis Frink and Alex Csáky married in 1974 and came to live in Woolland in 1976 in what had been the stables of a large and essentially Victorian house next to the church built by Gilbert Scott in 1855. For Alex it was as return to Dorset since he had been at school at Clayesmore from 1932. The main house at Woolland, derelict after occupation by the services in the 1939-45 war, had been demolished in about 1962. The site was levelled to form a long, broad, grass terrace below the stables. House and stables lie towards the bottom of the abrupt, steep, north-facing slope below Bulbarrow and Rawlesbury, just high enough above the vale to give a wide view over tree-top level, poised between severe down and fertile plain. The courtyard form of the stables survived, as did some of the internal fittings. The great living room, two stories high and filled with pictures and sculpture by many artists, overlooked the terrace populated with Lis's sculpture - bronze figures of running or standing men, dogs, bird figures, great heads and horses.

Lis and Alex seem to have become part of Dorset immediately they arrived, and gave themselves to the locality, whether the parish or the whole county. Lis was made a CBE in 1969, RA in 1977, DBE in 1982 and CH in 1992. In her all too short 17 years in Dorset she was at the height of her powers, producing a multitude of works, including, for this part of the world, the *Walking Madonna* of 1981 for Salisbury Cathedral, the *Dorset Martyrs* group for South Walks, Dorchester, in 1983



Lis Frink in her London studio. Photo: Peter Kinnear.

and one of her bronze dogs given to the West Dorset Hospital when it opened in 1987. Although she was working at high power and travelling extensively with her work to the United States, Australia ,Hong Kong and London she was always willing to lend sculpture to a gallery in Poole or Portland, Bridport or Dorchester, indeed anywhere in the county. She encouraged artists, especially sculptors, of all ages, encouraged not just with words but actions, writing to support applications for grants to trusts and the like.

It was typical of Lis that when asked at the end of the 1970s if there was any hope that we could have an exhibition in a year or two, she and Alex arranged a stunner in the County Museum in the summer of 1982. This was a memorable occasion when they brought to us a dozen large scale works, more than two dozen smaller bronzes, and a series of drawings and lithographs for the walls. She and Alex even persuaded the County Constabulary to release a bronze dog it held which was to be Exhibit A in a forthcoming prosecution, having been stolen from the garden at Woolland a few weeks earlier. The whole exhibition was prepared by the two of them, all the costs covered by them, Lis positioning pieces, Alex humping the great bronze heads personally, and polishing their shining goggles. This was obviously not the first they had prepared an exhibition together.

Typical also that she somehow found time to come to our temporary exhibition selection meetings where she provided practical suggestions and help which led to exhibitions we would not have contemplated without her support - the *Anatomy of the Horse* drawings by George Stubbs, lent by the Royal Academy and opened by Lis in 1983, Ann Christopher's sculpture and drawings in 1989 being among them. She was a great protagonist of the work of Mary Spencer Watson and of Common Ground, opening these exhibitions in the Museum in 1991 and 1988.

Friendly, generous, never sentimental, fearless, Lis loved country living and she loved Dorset. As was said at her memorial service in St James's, Piccadilly in October, 'Lis Frink's sculpture will see us all through. After that it is art history, best left to the art historians'. Great Britain has lost an inspired artist; we, the Society, have lost a true friend.

R.N.R. Peers

A.T. STANGROOM 1909-1993

From the summer of 1965 to the summer of 1970, a short but critical period in the Society's history, we were fortunate to have an exceptional resident caretaker. In 1965 the Society launched a public appeal to raise money to make good the inevitable neglect of the buildings caused by the second World War and the subsequent period of austerity, and to build a multi-purpose gallery on the site of the Dorchester School of Art, a new archaeological gallery to leave the great ironwork Victorian hall free from impedimenta, a laboratory, a room for school parties to work in, and to adapt the old stable of the George Inn as a Bygones gallery. Arthur Stangroom, as caretaker, played an important role in those operations.

He was born on 14 October 1909 in Hornsey, London, the youngest of six children. His father died when Arthur was five years old. The family was living on the poverty line and therefore he started work at the age of eleven selling milk straight from the churn. When he was 18 he became a Lewis Gunner in the 7th Bn. the Middlesex Regiment as a territorial.

At 21 he was appointed a branch manager for David Greig the provision merchants. In 1938 he joined the Auxiliary Fire Service in London, and in 1941 became a full-time fireman in the National Fire Service. His brother Harry was killed in the war working for the London Fire Brigade. Arthur ended his service as a Middlesex Fire Prevention Officer.

The post of caretaker to the Society is a crucial one; Mr. Stangroom was brilliant at the two principal parts of the job. He took a great and justifiable pride in the spick and span state of the buildings, from floors to ceilings. He followed as caretaker a dearly-loved man, Frank Hammett, who had been in the post since 1932, retiring at the age of 75. After an interregnum there was inevitably much work to be done.

Mr Stangroom transformed the patina of the Museum, against the odds, at a time when there was a constant flow of builders, boiler-men, electricians, and painters hard at work throughout the buildings, and all the dirt, dust, noise and general commotion that goes with such improvements. Disturbance barely ceased throughout his time at the Museum. Despite constantly having to clean up behind the workmen, his cheerfulness and hard work were a tonic to us all.

The other side of his work was the front-of-house presentation of the Museum, welcoming visitors, keeping them happy, acting as a go-between with the staff and the Society's members and answering innumerable unlikely questions. At this one can say he was brilliant. It was very apparent he liked people. His handling of them was masterly. We could not have been better served at a time of such upheaval.

As his son David wrote after his father's death 'All of his life my father hungered after knowledge ... [he] loved working in the Museum as one of his favourite subjects was history; his love of Dorset made it all the more enjoyable'.

He was an exceptional man whose retirement in 1970 was a great loss to us all. He made and left his mark on the Museum, setting standards which were enormously appreciated at the time, and which we have tried to live up to since.

R.N.R. Peers

R.A.H. Farrar, a Vice-President of the Society, and Editor of these *Proceedings* from vol 71 (1949) to 76 (1954) died in December 1993. An obituary will be published in volume 116 of the *Proceedings*.

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